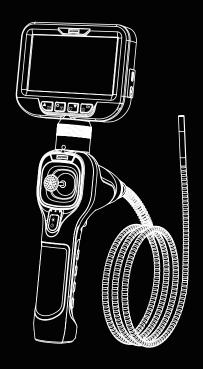


AUTOOL SVB308

Four-way Articulating Borescope

User Manual 用户手册



www.autooltech.com



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TABLE OF CONTENTS

Copyright Information	2
Copyright	2
Trademark	2
Cautions	3
Warning	3
Product Introduction	4
Overview	4
Product parameters	4
Product Structure	5
Structure diagram	5
Operating Instructions	6
Operation guide	6
Icon status	7
Tips & help	8
Troubleshooting and help	8
Maintenance Service	10
Maintenance	10
Warranty	11
Warranty access	
Disclaimer	
Return & Exchange Service	12
Return & Exchange	

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CAUTIONS

Warning

<u>Marketing</u> Before using the product, please pay attention to the following operations:

- ▶ Prior to using this product, carefully read this manual and follow the instructions to avoid improper usage that may result in loss or injury.
- Do not operate the joystick when the flexible hose is curled, as it may lead to the breakage or deformation of the steering traction line.
- ▶ The bending direction of the probe can only be controlled by the joystick. Do not force the camera probe, as it may cause the steel wire to break or deform.
- Avoid keeping the joystick at the maximum bending angle for an extended period, as it may put the equipment under high load and affect its lifespan.
- ▶ Do not use this device to observe the interior of the human body or animals, as consequences will be at your own risk.
- Prohibit usage or storage in explosive, strong electromagnetic, flammable, or corrosive environments, as it may result in fire, explosion, or equipment damage.
- Avoid operating on objects under electrified conditions to prevent electric shock.
- Do not touch the end of the camera probe directly, especially after using the borescope in a high-temperature environment, as it may cause burns.
- ▶ Avoid direct close-up viewing of the strong light emitted from the end of the borescope probe to prevent visual impairment.
- After using the device, allow the joystick to return to its normal state. Do not forcefully pull it out from the tested object to prevent probe jamming and damage to the articulating function.
- Do not connect this product to devices from other manufacturers (host, flexible hose, etc.), as consequences will be at your own risk
- Do not expose the flexible hose to a temperature exceeding 70°C.



PRODUCT INTRODUCTION

Overview

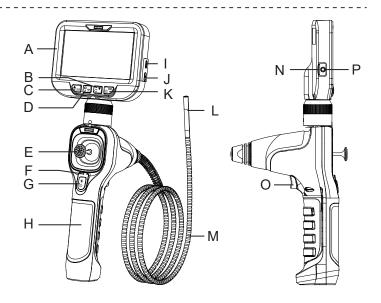
This product is specifically designed for detecting hard-to-reach areas such as car evaporators, combustion chambers, and three-way catalytic converters. It features a unique temperature protection function and comes equipped with a 360° articulating function, allowing users to easily maneuver the camera probe into tight spaces. Real-time footage can be transmitted to external devices via a data cable. With advanced expandable accessories and real-time temperature display, it meets the diverse detection needs of users.

Product parameters

Camera Diameter	6.2mm
Field of View (FOV)	90°
Camera Light Source	6 High-brightness LED lights
Sensor	1/9" CMOS
Pixels	100W
Flexible Hose Length	1m
Flexible Hose Material	Elastic metal hose
Depth of Field (DOF)	20~100mm
Manual Dimming	Supported
Battery	3.7V/2600mAh lithium battery
Power Input	DC 5V
Usage Duration	Approximately 120 minutes
Operating Environment	-10°C~50°C
Protection Level	Not waterproof for the main unit
Screen Size	4.3 inches
Language	Supports multiple languages
Storage	Standard 8GB TF card

PRODUCT STRUCTURE

Structure diagram



Α	Main unit		Downward/Screen rotation	
С	Upward/TV	D	Settings/Playback	
Е	Joystick	F	Power indicator light	
G	LED light adjustment	Н	Grib area	
1	Type-C charging port	J	Power On/Off	
K	OK/Capture/Record	L	Million high-definition lens	
M	Flexible hose	N	TF storage card	
0	Capture/Record	Р	Headphone jack	

OPERATION INSTRUCTIONS

Operation guide

Power On/Off

Press and hold the [()] button on the grib for 2 seconds to turn on the device. The working indicator light will be on. Open the application on your phone to display the image. Press and hold the [(l)] button for 2 seconds to turn off the device.

LED Light Adjustment

After powering on, the LED light is at its brightest by default. Press the [﴿) button to adjust the brightness. Brightness has 3 levels, and the 4th press turns off the LED light.

• Screen Key Instructions

	▲ TV	•		C▼	ок ©	
Record Mode	Long press to turn on/off screen mirroring, Default P mode	Long press to enter playback mode		Press for screen rotation	Press to return for photo capture/ Stop recording	Long press to return to take photo/ Stop recording
Photo Mode	Long press to turn on/off screen mirroring, Default P mode	Press for settings	Long press to enter playback mode	Press for screen rotation	Press for photo capture	Long press record video
Playback Mode	Previous item, Video fast rewind	Delete/ Protect/ Slideshow	Long press to exit playback mode	Next item, Video fast forward	Play/Pau	ıse video

Additional Settings

In photo mode, press the [${}^{\bullet}_{\,\,\overline{\,}\overline{\,}\overline{\,}}\,]$ button to access additional settings, including:

1. Resolution:

Choose from VGA 640*480, HD 1280*720, FHD 1920x1080.

2. Date Stamp:

When enabled, photos or videos taken will display the capture/recording date in the bottom right corner.

3. Auto Shutdown:

Choose to disable or set auto shutdown after 3minutes, 5minutes, or 10minutes.

4. Language Setting:

Choose from Simplified Chinese, Traditional Chinese, Japanese, English, Korean, French, Spanish, German, Italian, Russian.

5. Ruler:

Choose to disable or select crosshair cursor, ring cursor.

In playback mode, press the [o] button to access the following settings:

1. Delete:

Choose to delete the current file or select to delete all files.

2. Protect:

Choose to lock the current file, unlock the current file, lock all files, or unlock all files.

Icon status

Memory card status icon



No Memory Card



Memory Card Inserted

• LED light status icon









• Battery status icon











Battery Level 25% Battery Level 50% Battery Level 75% Full Battery Low Battery, Charge Now Charging

TIPS & HELP

Troubleshooting and help

• 1. Issue: No power on

- Possible causes:

Low battery, incorrect battery installation.

Steps:

Charge the battery or replace it. Check for dirt or deformation in the battery, battery compartment, and contacts. Reinstall the main unit.

2. Issue: Automatic shutdown

- Possible cause:

Low battery level.

Steps:

Charge the battery or replace it.

. 3.Issue: Screen freeze after powering on

- Possible causes:

System Startup Failure; Low Battery Level

Steps:

Reinstall the battery and restart. Charge the battery. Reinstall the main unit

• 4. Issue: Image Cannot be recorded or retrieved

- Possible cause:

Insufficient SD card capacity.

Steps:

Replace the SD card or delete unnecessary files.

Format the SD card.

5. Issue: Inserting SD card prompts "card error" or "format"

- Possible cause:

Misalignment in the card slot.

Steps:

Clean the SD card contacts. Reinsert and reconnect the SD card.

• 6. Issue: Charging failure

- Possible causes:

Dirty charging interface, damaged charging cable.

Steps:

Clean the charging interface and reconnect the cable. Replace the charging cable or charger.

• 7. Issue: Blurry image

- Possible causes:

Dirty probe, out of probe depth of field, lens damage due to high temperature.

Steps:

Clean the probe with a clean cloth. Place the probe within 20-100mm from the target. Avoid exposing the probe to high temperatures (below 70°C).

• 8. Issue: Limited articulating radius of the probe

- Possible cause:

Twisted or deformed flexible hose.

Steps:

Ensure the flexible hose is laid flat before use.

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.

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目 录

版权信息14
版权14
注册商标14
注意事项15
警告15
产品简介16
概述16
产品参数16
产品结构 17
结构图 17
操作说明
操作指导18
图标状态19
提示与帮助20
故障报告20
维修保养服务21
维修保养21
保修服务22
保修方式
声明22
退换货服务23
退换货

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注意事项

警告

↑ 在使用产品前,请注意以下操作:

- ► 在使用本产品前,请仔细阅读本说明书,并按照说明书指导操作,以免使用不当造成损失或伤害。
- ▶ 禁止蛇管盘曲时操作拨轮,会导致转向牵引线拉断、变形。
- ▶ 探头的弯曲转向只能通过拨轮来控制,切勿用外力掰动探头,否则容易造成牵引钢丝拉断、变形。
- ▶ 不宜将操作手柄长时间控制在最大弯曲角度,这样操作会使设备处在高负载状态影响设备的使用寿命。
- ▶ 禁止使用本设备观察人体或动物的体内,否则后果自负。
- ▶ 禁止在易爆、强电磁场、有可燃性、腐蚀性场所使用或存放,否则可能会导致火灾、爆炸、设备损坏等。
- ▶ 禁止被检测物在带电情况下作业,以免导致触电发生。
- ▶ 切勿直接接触探头末端,尤其要特别注意内窥镜在高温环境中使用后,此时接触末端可能会导致灼伤。
- ▶ 切勿近距离直视内窥镜探头未端发出的强光光源,避免强光影响视力。
- ▶ 使用完设备后,让拨轮恢复回正状态,切勿从被测物体内强力拉出,以防卡住探头,导致转向功能损坏。
- ▶ 请勿将本产品连接其他厂家设备(主机、蛇管等),否则后果自负。
- ▶ 请勿将蛇管放入超过70°C的高温环境中。

产品简介

概述

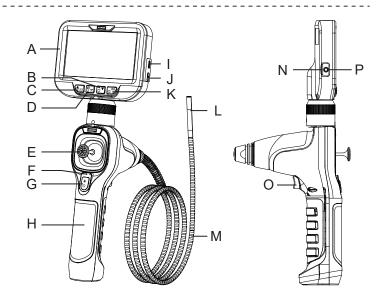
本产品专门用于探测汽车蒸发箱、燃烧室、三元催化传感器等难以进入窄小弯曲空间。该产品具有独特的温度保护功能,配有360°转向功能,方便用户将细小的探头探入狭小的空间内。可以通过数据线将实时画面传送至外置设备上。搭配先进的拓展性配件及实时温度显示能满足用户多样化的检测需求。

产品参数

摄像头直径	6.2mm
视角FOV	90°
摄像头光源	6颗高亮LED灯
传感器	1/9"CMOS
像素	100W
蛇管长度	1m
蛇管材质	弹性金属软管
景深DOF	20~100mm
手动调光	支持
电池	3.7V/2600mAh锂电池
电源输入	DC 5V
使用时长	约120分钟
操作环境	-10°C~50°C
防护等级	整机不防水
屏幕尺寸	4.3英寸
语言	支持多种语言
存储	标配8GB-TF卡

产品结构

结构图



Α	主机	В	B 向下/画面旋转		
С	向上/TV	D	设置/回放		
Е	摇杆	F	电源指示灯		
G	LED灯调节	Н	手柄机身		
	Type-C充电接口	J	开机/关机		
K	OK/拍照录像	L	百万高清探头		
M	弹性蛇管	N	TF存储卡		
0	拍照/录像	Р	耳机接口		

操作说明

操作指导

● 开机/关机

长按[$oldsymbol{0}$]键2秒开机,主机指示灯亮,此时显示屏会自动显示画面;长按[$oldsymbol{0}$]键2秒关机。

• LED灯光调节

开机后,LED灯默认最亮,点按[★]键调节亮度,亮度分3档,第4档为关闭LED灯。

• 屏幕按键说明

	▲ TV	*		C▼	Ó	ок
录像模式	长按 开/关投屏 (默认P制)	长按进入回放模式		点按 屏幕翻转	点按 返回拍照 停止录像	长按 返回拍照 停止录像
拍照模式	长按 开/关投屏 (默认P制)	点按设置 长按进入 回放模式		点按 屏幕翻转	点按 拍照	长按 录制视频
回放模式	上一项、 视频快退	删除 保护 幻灯片播放	长按退出 回放模式	下一项、 视频快进	播放/智	停视频

• 其他设置

在拍照模式下,点按[♣□]键,可以设置分辨率和日期标贴,等其中:

- 1.分辨率: 可选VGA 640*480、HD 1280*720、FHD 1920x1080;
- **2.日期标贴:** 打开后,拍照或者录像时,照片或视频右下角会显示拍照/录制日期;
- **3.自动关机:** 可选关闭或选择3分钟、5分钟、10分钟后自动关机;
- **4.语言设置:** 可选简体中文、繁体中文、日语、英语、韩语、法语、西班牙语、德语、意大利语、俄语;

5.标尺: 可选关闭或选择十字光标、圆环光标。

• 在回放模式下,点按[♣□]键,可以进行如下设置:

1.删除: 可以选择删除当前或选择删除全部:

2.保护: 可以选择加锁当前、解锁当前、全部加锁、解锁全部。

图标状态

内存卡状态图标





• LED灯光状态图标









1档

2档

3档(最亮) 4档(关闭)

● 电池状态图标













25%

50% 75%

电量 电量 萬电量 电量耗尽

充电中 立即充电

提示与帮助

故障报告

• 1. 故障: 开机无反应

- 可能原因: 电池没电, 电池未正确安装

措施: 进行充电或者更换电池; 检查电池、电池仓和触点是否有脏污、变形; 重新拆装主机

● 2. 故障: 自动关机

- 可能原因: 电池电量不足 措施: 进行充电或更换电池

• 3. 故障: 开机停止再开机画面

- 可能原因: 系统启动失败; 电池电量不足

措施: 重新拆装电池并重启; 充电; 重新拆装主机

• 4. 故障: 图像无法记录或找出

- 可能原因: SD卡容量不足

措施:更换SD卡或删除无用文件;格式化SD卡

● 5. 故障: 插入SD卡提示"卡错误"或"格式化"

- 可能原因: 插卡位置有偏差

措施:清洁SD卡触点;重新插拔SD卡

• 6. 故障: 无法充电

- 可能原因: 充电接口脏污; 充电线损坏

措施:清洁充电接口,并重新插拔充电线;更换充电线或充电器

• 7. 故障: 图像模糊

- 可能原因: 探头脏污; 无在探头景深范围; 高温导致镜头损坏措施: 用洁净布清洁探头; 请将探头放置距被看处20-100mm内; 请勿将探头放入高温环境中(低于70°C)

• 8. 故障: 探头转向偏小

- 可能原因: 蛇管扭曲变形

措施:请将蛇管摆放平直使用

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,使其产品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。