



Robert Bosch GmbH
Power Tools Division
70745 Leinfelden-Echterdingen
Germany

www.bosch-pt.com

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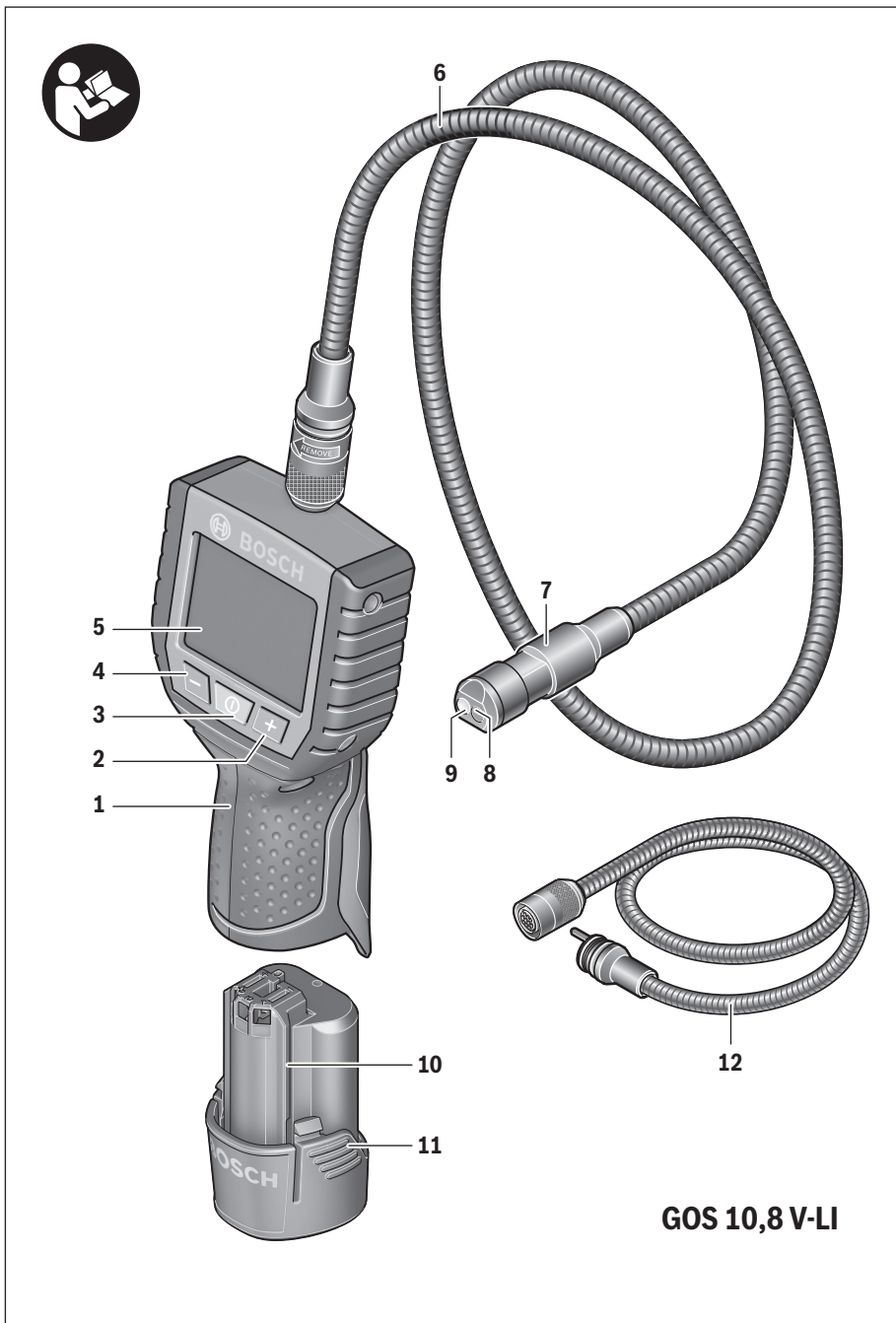
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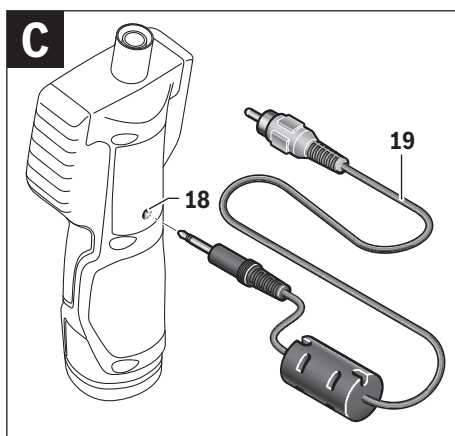
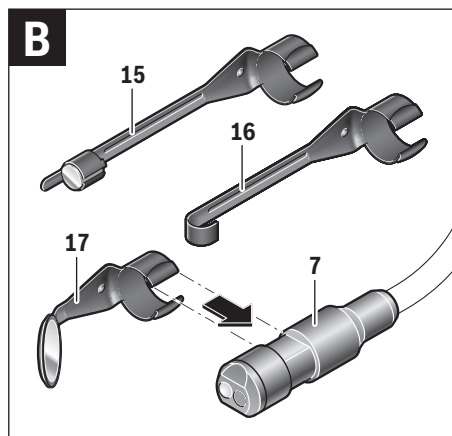
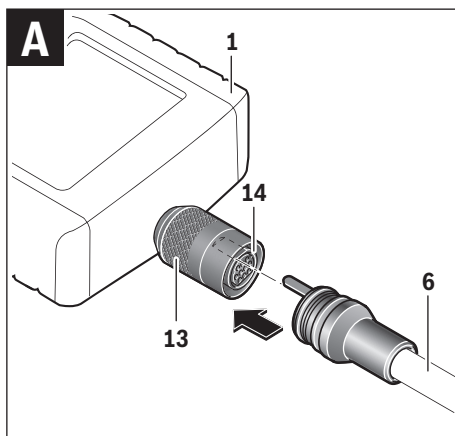
GOS 10,8 V-LI Professional



- en** Original instructions
- cn** 正本使用说明书
- tw** 原始使用說明書
- ko** 사용 설명서 원본
- th** หนังสือคู่มือการใช้งานฉบับต้นแบบ
- id** Petunjuk-Petunjuk untuk Penggunaan Orisinal
- vi** Bản gốc hướng dẫn sử dụng









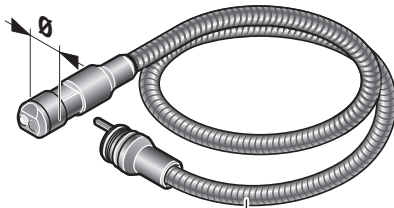
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 1 600 Z00 01P (AU, KO)
 1 600 A00 16M (JP)
 1 600 A00 16N (CN)
 1 600 A00 16P (TW)
 1 600 A00 16R (IN)
 1 600 A00 16S (MY, SG)



10,8 V

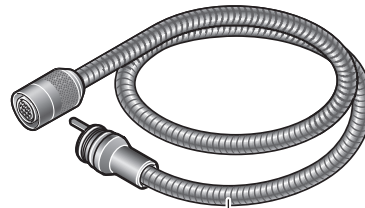


AL 1115 CV (3,6-10,8 V)
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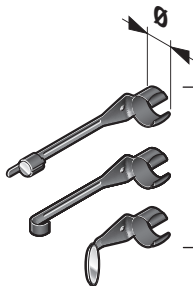
6

2 610 014 567 (Ø 17 mm, 1,22 m)
 2 610 014 568 (Ø 9,5 mm, 0,91 m)



12

2 610 014 570 (0,91 m)



2 610 014 564 (Ø 17 mm)
 2 610 014 565 (Ø 9,5 mm)

English

Safety Notes

Digital Inspection Camera



Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

- ▶ **Have the inspection camera repaired only through a qualified repair person and only using identical replacement parts.** This will ensure that the safety of the inspection camera is maintained.
- ▶ **Do not operate the inspection camera in explosive atmospheres, such as in the presence of flammable liquids, gases or dusts.** Sparks can be created in the inspection camera which may ignite the dust or fumes.
- ▶ **Before any work on the inspection camera itself (e.g. assembling, maintenance, etc.) as well as when transporting and storing, remove the battery from the inspection camera.**
- ▶ **Do not open the battery.** Danger of short-circuiting.



Protect the battery against heat, e.g., against continuous intense sunlight, fire, water, and moisture. Danger of explosion.

- ▶ **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritations or burns.
- ▶ **In case of damage and improper use of the battery, vapours may be emitted. Ventilate the area and seek medical help in case of complaints.** The vapours can irritate the respiratory system.
- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- ▶ **Use the battery only together with your Bosch inspection camera.** This is the only way to protect the battery against dangerous overload.
- ▶ **Use only original Bosch batteries with the voltage listed on the nameplate of your inspection camera.** When using other batteries, e.g. imitations, reconditioned batteries or other brands, there is danger of injury as well as property damage through exploding batteries.
- ▶ **After the automatic shut-off of the inspection camera, do not continue to press the On/Off button.** The battery could become damaged.

- ▶ **Do not direct the light beam at persons or animals and do not stare into the light beam yourself (not even from a distance).**
- ▶ **Check the working range before using the inspection camera. No part of the inspection camera may come into contact with electrical lines, moving parts or chemical substances. Interrupt the power circuit of electrical lines in the working range.** These measures reduce the risk of explosion, electric shock and property damage.
- ▶ **Wear appropriate protective equipment such as safety glasses/goggles, protective gloves or respirator when materials that are hazardous to one's health are in the working range.** Sewer lines or similar areas can contain solid, liquid or gaseous substances, which may be toxic, infectious, caustic or otherwise hazard to one's health.
- ▶ **Pay particular attention to cleanliness when working in areas with substances that are hazardous to one's health. Do not eat during work.** Avoid contact with substances that are hazardous to one's health. After finishing your work, wash hands and other affected body parts that may have come into contact, with warm soapy water.
- ▶ **Do not stand in water when using the inspection camera.** When standing in water while working, there is a risk of electric shock.

Magnet



Keep the magnet 15 away from cardiac pacemakers. The magnet generates a field that can impair the function of cardiac pacemakers.

- ▶ **Keep the magnet 15 away from magnetic data medium and magnetically-sensitive equipment.** The effect of the magnetic can lead to irreversible data loss.

Product Description and Specifications

Intended Use

The digital inspection camera is suitable for inspecting hard to reach locations or dark areas. After mounting the provided accessories to the camera head, it is also suitable for moving and removing small and light objects (e.g., small screws). The digital inspection camera may not be used for medicinal purposes. It is also not suitable for repairing pipe clogs or pulling in cables.

Product Features

The numbering of the product features refers to the illustration of the inspection camera on the graphics page.

- 1 Hand unit
- 2 Increase-brightness button “+”
- 3 On/Off button
- 4 Reduce-brightness button “-”
- 5 Display
- 6 Camera cable

- 7 Camera head
- 8 Camera lens
- 9 Illumination light in camera head
- 10 Battery pack*
- 11 Battery unlocking button
- 12 Camera cable, extension*
- 13 Socket sleeve of camera connection
- 14 Camera connection
- 15 Magnet
- 16 Hook
- 17 Mirror
- 18 Video output socket
- 19 Video cable

*Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

Technical Data

Digital Inspection Camera	GOS 10,8 V-LI	
Article number	3 601 B41 0..	
Rated voltage	V=	10.8
Operating temperature	°C	-20 ... +65
Storage temperature (hand unit without battery)	°C	-30 ... +80
Relative humidity	%	5 - 95 ¹⁾
Smallest bending radius of camera cable	mm	120
Diameter of camera head	mm	17/9.5
Depth-of-field range of camera lens	mm	38 - ∞
Display size	mm	68.6
Display resolution	320 x 240	
Format of video output	NTSC	
Operating life time, approx.	h/Ah	11.5
Weight according to EPTA-Procedure 01/2003	kg	0.68
Dimensions (length x width x height)	mm	166 x 66 x 45

1) Free of moisture condensation

Assembly

- ▶ **Before any work on the inspection camera itself (e.g. assembling, maintenance, etc.) as well as when transporting and storing, remove the battery from the inspection camera.**

Battery Charging

- ▶ **Use only the battery chargers listed on the graphics page.** Only these battery chargers are matched to the lithium-ion battery used in your inspection camera.



Note: The battery is supplied partially charged. To ensure full capacity of the battery, completely charge the battery in the battery charger before using your power tool for the first time.

The lithium-ion battery can be charged at any time without reducing its service life. Interrupting the charging procedure does not damage the battery.

The battery is equipped with a NTC temperature control which allows charging only within a temperature range of between 0 °C and 45 °C. A long battery service life is achieved in this manner.

Battery Charge-control Indication

When the inspection camera is switched on, the charge condition of the battery is indicated on the display 5:

Indication	Capacity
	> 1/2
	< 1/2
	Reserve

Removing the battery

To remove the battery 10, press the battery unlocking buttons 11 and pull the battery toward the rear out of the inspection camera. **Do not exert any force when doing this.**

Mounting the Camera Cable (see figure A)

For operation of the inspection camera, the camera cable 6 must be mounted to the hand unit 1.

Insert the camera cable 6 into the camera connection 14 in such a manner that the pin of the camera cable engages into the opening of the camera connection as shown in the figure. Slide the socket sleeve 13 on the camera connection over the camera cable and hand-tighten in clockwise direction.

To remove the camera cable 6, unscrew socket sleeve 13 in anticlockwise direction and pull the camera cable off.

Mounting the Camera Cable Extension (Accessory)

To mount a camera cable extension 12, the mounted camera cable 6 must be removed.

Then, mount the extension 12 onto camera connection 14 as described under "Mounting the Camera Cable" and tighten.

If required, further extensions can be mounted in the same manner. However, the image quality decreases when exceeding a total length approx. 10 m (incl. camera cable).

Screw the camera cable 6 onto the last extension 12 as described under "Mounting the Camera Cable".

- ▶ **Check if the camera cable and the extension are firmly connected.** The camera cable and the extension are only water-tight when firmly connected. Untight connections increase the risk of an electric shock or damage to the inspection camera.

Mounting the Mirror, Magnet or Hook (see figure B)

The mirror 17, the magnet 15 and the hook 16 can be mounted to the camera head 7 as auxiliary aids.

Slide one of the three auxiliary aids to the stop onto the recess on the camera head 7 as shown in the figure.

8 | English

Note: The magnet **15** and the hook **16** are only suitable for moving and removing loose, small and light objects. Applying too much tension can damage the inspection camera or the auxiliary aid.

Connecting the External Image Reproduction (see figure C)

The image signal of the inspection camera can be transferred to an external monitor, which can represent a standard NTSC video signal.

Insert the black plug of the supplied video cable **19** into the video output socket **18** of the inspection camera. Connect the video cable to an appropriate monitor.

Read and observe the and operating instructions of the external monitor.

Operation

- ▶ **Protect the hand unit 1 and the battery 10 against moisture and direct sunlight.** Camera cable, camera head and extension are watertight to a depth of approx. 10 m. However, the hand unit and the battery are not protected against water; in case of contact with water, the risk of electric shock or damage is given.
- ▶ **Do not subject the inspection camera to extreme temperatures or variations in temperature.** As an example, do not leave it in vehicles for longer periods. In case of large variations in temperature, allow the inspection camera to adjust to the ambient temperature before putting it into operation.
- ▶ **Do not use the inspection camera when the lens on the camera head 7 is misty or fogged-up. Do not switch the inspection camera on until after the moisture has evaporated.** Otherwise, the inspection camera can become damaged.

Initial Operation

Inserting the battery

- ▶ **Use only original Bosch lithium-ion batteries with the voltage listed on the nameplate of your inspection camera.** Using other batteries can lead to injuries and pose a fire hazard.

Note: Using batteries not suitable for your inspection camera can lead to malfunctions or damage the inspection camera.

Insert the charged battery **10** into the handle until it can be felt to engage and faces flush against the handle.

Switching On and Off

To **switch on** the inspection camera, press the On/Off button **3**. The display **5** shows the image of the camera head **7**.

To **switch off** the inspection camera, press the On/Off button **3** again.

When no button on the inspection camera is pressed for approx. 20 minutes, it automatically switches off to save the batteries.

Regulating the Illumination Light in the Camera Head

To brighten the camera image on display **5**, the illumination light **9** in the camera head can be switched on and its brightness can be regulated.

To switch on the camera's illumination light **9** and increase its brightness, press button "+ " **2** until the desired brightness is reached.

- ▶ **Do not stare into the illumination light 9 and do not direct it at other persons.** The brightness of the light can blind the eyes.

To reduce the brightness and switch off the camera light **9**, press button "- " **4** until the desired brightness is reached or the light is switched off.

Working Advice

Check the area that you want to inspect and pay particular attention to obstructions or hazard areas.

Bend the camera cable **6** in such a manner that the camera head can be easily inserted into the area subject to the inspection. Carefully guide the camera cable in.

Adjust the brightness of the illumination light **9** so that the image can be seen well. For heavily reflecting objects, as an example, less light will provide a better image.

When objects to be inspected are represented unsharp, reduce or increase the distance between camera head **7** and object.

If required, bend the camera cable **6** in such a manner that the camera image is shown upright on display **5**.

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Store the battery only within a temperature range between 0 °C and 50 °C. As an example, do not leave the battery in the car in summer.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

Observe the notes for disposal.

Maintenance and Service

Maintenance and Cleaning

Do not immerse the hand unit **1** into water or other fluids.

Keep the inspection camera clean at all times. Clean the inspection camera and all auxiliary aids particularly thorough after having worked in areas with substances that are hazardous to one's health.

Wipe off debris using a moist and soft cloth. Do not use any cleaning agents or solvents.

Especially clean the lens **8** of the camera regularly and pay attention for any lint.

After-sales Service and Application Service

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:

www.bosch-pt.com

Bosch's application service team will gladly answer questions concerning our products and their accessories.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of the inspection camera.

People's Republic of China

China Mainland

Bosch Power Tools (China) Co., Ltd.

567, Bin Kang Road

Bin Jiang District 310052

Hangzhou, P. R. China

Service Hotline: 4008268484

Fax: (0571) 87774502

E-Mail: contact.ptcn@cn.bosch.com

www.bosch-pt.com.cn

HK and Macau Special Administrative Regions

Robert Bosch Hong Kong Co. Ltd.

21st Floor, 625 King's Road

North Point, Hong Kong

Customer Service Hotline: +852 2101 0235

Fax: +852 2590 9762

E-Mail: info@hk.bosch.com

www.bosch-pt.com.hk

Indonesia

PT. Multi Mayaka

Kawasan Industri Pulogadung

Jalan Rawa Gelam III No. 2

Jakarta 13930

Indonesia

Tel.: (021) 46832522

Fax: (021) 46828645/6823

E-Mail: sales@multimayaka.co.id

www.bosch-pt.co.id

Philippines

Robert Bosch, Inc.

28th Floor Fort Legend Towers,

3rd Avenue corner 31st Street,

Fort Bonifacio Global City,

1634 Taguig City, Philippines

Tel.: (02) 8703871

Fax: (02) 8703870

matheus.contiero@ph.bosch.com

www.bosch-pt.com.ph

Bosch Service Center:

9725-27 Kamagong Street

San Antonio Village

Makati City, Philippines

Tel.: (02) 8999091

Fax: (02) 8976432

rosalie.dagdagan@ph.bosch.com

Malaysia

Robert Bosch (S.E.A.) Sdn. Bhd.

No. 8A, Jalan 13/6

G.P.O. Box 10818

46200 Petaling Jaya

Selangor, Malaysia

Tel.: (03) 79663194

Fax: (03) 79583838

cheehoe.on@my.bosch.com

Toll-Free: 1800 880188

www.bosch-pt.com.my

Thailand

Robert Bosch Ltd.

Liberty Square Building

No. 287, 11 Floor

Silom Road, Bangrak

Bangkok 10500

Tel.: 02 6393111, 02 6393118

Fax: 02 2384783

Robert Bosch Ltd., P. O. Box 2054

Bangkok 10501, Thailand

www.bosch.co.th

Bosch Service – Training Centre

La Salle Tower Ground Floor Unit No.2

10/11 La Salle Moo 16

Srinakharin Road

Bangkaew, Bang Plee

Samutprakarn 10540

Thailand

Tel.: 02 7587555

Fax: 02 7587525

Singapore

Robert Bosch (SEA) Pte. Ltd.

11 Bishan Street 21

Singapore 573943

Tel.: 6571 2772

Fax: 6350 5315

leongheng.leow@sg.bosch.com

Toll-Free: 1800 3338333

www.bosch-pt.com.sg

Vietnam

Robert Bosch Vietnam Co. Ltd

10/F, 194 Golden Building

473 Dien Bien Phu Street

Ward 25, Binh Thanh District

84 Ho Chi Minh City

Vietnam

Tel.: (08) 6258 3690 ext. 413

Fax: (08) 6258 3692

hieu.lagia@vn.bosch.com

www.bosch-pt.com

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Australia, New Zealand and Pacific Islands

Robert Bosch Australia Pty. Ltd.
Power Tools
Locked Bag 66
Clayton South VIC 3169
Customer Contact Center
Inside Australia:
Phone: (01300) 307044
Fax: (01300) 307045
Inside New Zealand:
Phone: (0800) 543353
Fax: (0800) 428570
Outside AU and NZ:
Phone: +61 3 95415555
www.bosch.com.au

Transport

The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements. The user can transport the batteries by road without further requirements. When being transported by third parties (e.g.: air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required.

Dispatch batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Please also observe possibly more detailed national regulations.

Disposal

Inspection camera, battery packs, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of inspection cameras and battery packs/batteries into household waste!

Battery packs/batteries:**Li-ion:**

Please observe the instructions in section "Transport", page 10.

Subject to change without notice.

中文**安全规章****数码检测摄像机**

阅读所有的警告提示和指示。 如未确实遵循警告提示和指示，可能导致电击，火灾并且 / 或其他的严重伤害。

- ▶ **数码检测摄像机只能交给合格的专业人员修理，修理时只能使用原厂的零件。** 这样才能够确保数码检测摄像机的安全性。
- ▶ **不要在易爆环境（例如有易燃液体、气体或粉尘的环境）下操作数码检测摄像机。** 检测摄像机内可能产生火花并点燃粉尘和蒸汽。
- ▶ **在检测摄像机上进行任何改装的工作（例如安装、维修等），以及搬运和存放检测摄像机之前，都得拿出摄像机中的蓄电池。**
- ▶ **切勿打开蓄电池。** 可能造成短路。



保护蓄电池免受高温（例如长期日照），火焰，水和湿气的侵害。 有爆炸的危险。

- ▶ **不使用的电池盒必须远离回形针，硬币，钥匙，钉子，螺钉或其他小金属物体，以防一端的触点与另一端的触点连接。** 电池端部短路会引起燃烧或火灾。
- ▶ **如果使用不当可能从蓄电池渗出液体。** 避免接触此类流动液体。如果不小心触摸了，马上用水冲洗。假若上述液体侵入眼睛必须即刻就医。从蓄电池流出的液体会刺激或灼伤皮肤。
- ▶ **如果蓄电池损坏了，或者未按照规定使用蓄电池，蓄电池中会散发出有毒蒸汽。** 工作场所必须保持空气流通，如果身体有任何不适必须马上就医。蓄电池散发的蒸汽会刺激呼吸道。
- ▶ **只能使用制造厂商推荐的充电器替蓄电池充电。** 使用针对特定蓄电池的充电器为其它品牌的蓄电池充电，有发生火灾的危险。
- ▶ **本蓄电池只能配合博世检测摄像机一起使用。** 这样才能够保护蓄电池免于过载。
- ▶ **只能根据检测摄像机铭牌上提供的电压，使用原厂的博世蓄电池。** 使用其它的蓄电池，例如仿冒品、经过修改的或其他品牌的蓄电池，会有受伤的危险并且可能因为蓄电池爆炸而造成财产损失。
- ▶ **在检测摄像机自动关闭之后，不可以继续按住起停开关。** 这样蓄电池会受损。
- ▶ **光束不可以对准人或动物，本身也不要直视光束，即使和光束相距甚远也不可以做上述动作。**
- ▶ **使用检测摄像机之前先检查工作领域。** 检测摄像机上的所有零件都不可以接触带电的线路，转动中的零件或化学物质。中断通过工作领域的带电电线的电路。这个措施可以避免发生爆炸，电击和造成财物损失。
- ▶ **如果工作范围内存在危害健康的物质，工作时必须穿戴合适的个人防护装备，例如防护眼镜，防护手套或防毒面具。** 下水道或其他类似的区域可能存在固态、液态或气态的废物，这些废物可能具备毒性、传染性、腐蚀性，甚至会以其他的方式危害健康。