



1. Introduction

Dear Customer,

thank you for purchasing this product.

This product complies with the statutory national and European requirements.

To maintain this status and to ensure safe operation, you as the user must observe these operating instructions!

These operating instructions are part of this product. They contain important notes on commissioning and handling. Also consider this if you pass on the product to any third party.

Keep these operating instructions for future reference!

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2. Explanation of Symbols



The symbol with a lightning bolt in a triangle is used where there is a health hazard, e.g. from electric shock.



An exclamation mark in a triangle indicates important notes in these operating instructions that must be strictly observed.



The „arrow“ symbol indicates that special advice and notes on operation are provided here.

3. Intended Use

The product contains a colour camera and a microphone, as well as a colour TFT monitor. Videos/photographs can be recorded using microSD/microSDHC memory cards (not enclosed) up to 32GByte.

The power supply takes place by a Li-Ion battery; the rechargeable battery is charged by the enclosed plug-in mains unit.

Please note that you incur a penalty if you observe strangers with this product without their knowing and consent. Observe the provisions and regulations of the country in which you use this product.

The safety notes and all other information in these operating instructions always have to be observed.

Any other use than that described above is not permitted and will damage the product. Additionally, this is connected to dangers, such as short circuit, fire, etc.

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4. Scope of Delivery

- Surveillance camera
- Li-ion rechargeable battery
- 2 different battery compartment lids (1x with clip, 1x without clip)
- Mains adapter
- USB cable
- Label set
- Operating instructions

5. Safety Information



The guarantee/warranty will expire if damage is incurred resulting from non-compliance with these operating instructions. We do not assume any liability for consequential damage!



Nor do we assume any liability for damage to property or personal injury caused by improper use or failure to observe the safety information. The warranty/guarantee will expire in such cases!

a) General Information

- The unauthorised conversion and/or modification of the product is prohibited for safety and approval reasons (CE). Never dismantle the product.
- Servicing or repair must only be carried out by a specialist.
- Do not leave packaging material unattended. It may become a dangerous toy for children.



b) Mains Adapter

- The mains adapter is constructed pursuant to protection class II. Only a proper mains socket must be used as voltage source for the plug-in mains adapter.
- The mains socket to which the plug-in mains unit is connected must be easily accessible.
- Use only the enclosed plug-in mains unit for power supply and to charge the battery of the monitoring camera.
- If the mains adapter is damaged, do not touch it. Danger to life from electric shock!

First switch off the mains voltage for the mains socket to which the plug-in mains unit is connected (switch off the circuit breaker or turn out the fuse, then switch off the FI protection switch so that the mains socket is separated from the mains voltage on all poles).

Then unplug the mains adapter from the mains socket. Dispose of the damaged mains adapter in an environmentally compatible way. Do not use it anymore. Replace it by a plug-in mains unit of the same specifications.

c) Operation

- The product is not a toy. Devices that are operated with mains voltage have no place in the hands of children. Therefore, be particularly careful when children are present.

Operate the product in a way that it is out of reach of children.

- The product is only suitable for operation in dry, closed rooms. No part of the product must get damp or wet; do not touch it with damp or wet hands!

There is danger to life from electric shock due to the plug-in mains unit!



- Do not use any force for connection of USB plugs. A USB plug will only fit in the USB socket in one direction.
- Never use the product immediately after it was taken from a cold into a warm environment. The condensation generated may destroy the product. The mains adapter also involves the risk of a fatal electric shock!





Let the product reach room temperature before connecting and using it. This may take several hours.

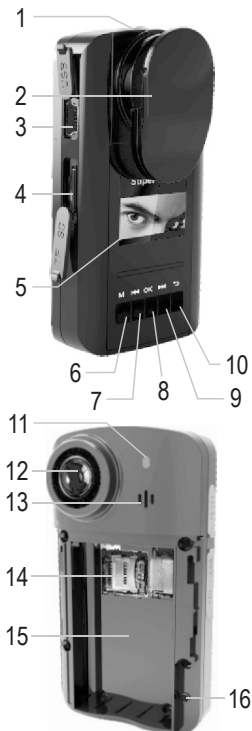
- The following unfavourable conditions are to be avoided at the place of installation and during transport:
 - Dampness or too high humidity
 - Cold or heat, direct solar radiation
 - Dust or flammable gases, fumes or solvents
 - Strong vibration, impact or blows
 - Strong magnetic fields as present near machines or speakers

6. Rechargeable Battery Notes

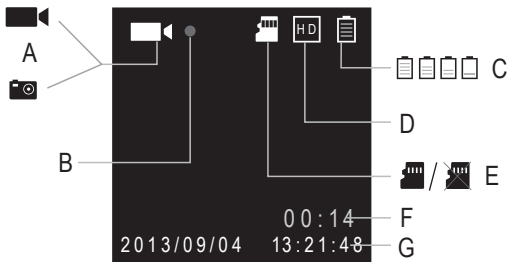
- Keep the rechargeable battery out of reach of children.
- Do not leave the rechargeable battery lying around openly; there is the danger of it being swallowed. If swallowed, consult a doctor immediately.
- The rechargeable battery must never be short-circuited, disassembled or thrown into fire. There is a danger of explosion!
- Never damage the rechargeable battery, do not puncture the rechargeable battery with objects. There is a risk of fire and explosion!
- The rechargeable battery must not get damp or wet; there is a danger of fire!
- Protect the rechargeable battery from strong heat or cold.
- Leaking or damaged batteries/rechargeable batteries can cause chemical burns to skin when touched without the use of adequate protective gloves.
- Liquids leaking from the rechargeable battery are chemically highly aggressive. Objects or surfaces that come into contact with them may take severe damage. Therefore, keep the rechargeable battery in a suitable location.
- When inserting the rechargeable battery into the surveillance camera, ensure its proper position in the battery compartment. The contacts of the rechargeable battery must correspond to the contacts in the battery compartment.
- The rechargeable battery must only be charged when it is correctly inserted into the surveillance camera.
- Charge the rechargeable battery every 2 months at the latest, even if you do not use the surveillance camera. Otherwise, there may be deep discharge, which will damage the rechargeable battery; loss of guarantee/warranty!

7. Operating Elements

- 1 Button „“ for switching on/off
- 2 Turning attachment clip (removable)
- 3 Mini USB socket
- 4 External SD memory card slot
- 5 TFT colour monitor
- 6 Button „M“
- 7 Button „“
- 8 Button „OK“
- 9 Button „“
- 10 Button „“
- 11 Indicator LED
- 12 Lens
- 13 Speakers
- 14 Internal memory card slot
- 15 Battery compartment
- 16 Reset button



Display:



- A Symbol for video or photo mode
- B Symbol appears during running video recording; the control LED (11) flashes
- C Symbol for battery condition
- D Symbol for currently set video or photo resolution
- E Symbol for inserted or missing memory card
- F Current video recording duration
- G Date and time

8. Commissioning

a) Inserting/Removing Memory Card

The surveillance camera has two separate slots for one memory card each of type microSD/microSDHC (max. 32 GByte).

In the setup menu, one can switch to which of the two memory cards a recording is made on.

Internal memory card slot

- To insert a memory card in the internal slot (14), open the battery compartment lid by pushing it down a little and then removing it.
- Carefully push the metal cover of the internal slot a little to the left towards „<OPEN“ (observe imprint in the metal cover).
- Then carefully fold up the metal cover.
- Insert a microSD or microSDHC memory card so that the contacts of the memory card correspond to the contacts in the slot.
- Fold the metal cover back down and push it to the right towards „>LOCK“, so that the metal cover is locked.
- Then you can insert the rechargeable battery and close the battery compartment lid; see chapter 8. b).

→ To remove the memory card, proceed as described above.

External SD memory card slot

- Switch off the surveillance camera (see chapter 8. d).
- Open the rubber cover above the external slot (4).
- Push a microSD or microSDHC memory card into the slot in the correct orientation until it latches audibly. The contacts of the memory card must point to the back towards the TFT screen.

- Close the rubber cover again.

—→ To remove a memory slot, first switch off the surveillance camera.

Open the rubber cover, push the memory card down into the slot a little e.g. with a finger nail.

Then the latching mechanics release the memory card and will push it a little out of the slot. The memory card can then be removed easily.

b) Inserting the Rechargeable Battery

- Push the battery compartment lid down a little and take it off.
- Insert the enclosed Lilon battery so that the rechargeable battery's contacts correspond to the respective contacts in the battery compartment.
- Put on the battery compartment lid again.

—→ The scope of delivery includes two different battery compartment lids.

- Battery compartment lid with clip
- Battery compartment lid without clip

Depending on where the surveillance camera is to be operated/attached, use one or the other battery compartment lid.

c) Charging the Rechargeable Battery

- Open the rubber cover above the Mini-USB socket(3) and connect the enclosed USB cable to the plug-in mains unit.
- Plug the plug-in mains unit into a proper mains socket.
- Charging the completely flat rechargeable battery takes up to 6 hours.
- Then disconnect the USB cable from the surveillance camera again and close the rubber cover again.
- Unplug the mains adapter from the mains socket.



→ Charge the rechargeable battery at the latest every 2 months, even if you do not use the surveillance camera. Otherwise, there may be deep discharge, which will damage the rechargeable battery; loss of guarantee/warranty!



The surveillance camera can also be charged via a computer's USB port. Observe that the USB port can provide a current of 500 mA. Therefore, only connect the surveillance camera directly to a computer or a USB hub with a dedicated mains unit.

When connecting to a computer, the inserted memory card is displayed like a regular removable medium drive. The photographs and videos can be played on the computer as well then; see chapter 12.

d) Switching On/Off

- To switch on, keep the button „“ (1) on the top pushed for 3 seconds. A sound signal is issued and a welcome message appears on the TFT colour screen. Then the camera's live image is displayed.
- To switch off, keep the button „“ (1) on the top pushed for 3 seconds. A sound signal is issued and the display on the screen goes out.

e) Basic Functions of the Operating Buttons

- Briefly pushing the button „M“ (6) switches between video mode, photo mode and photo playback mode.
- When the surveillance camera is on, you can start or end a video recording in video mode by briefly pushing the button „OK“ (8) if a memory card has been inserted.

In photo mode, the surveillance camera will record a picture by briefly pushing the button „OK“ (8).

If the button „OK“ (8) is pushed for an extended period, the setup menu appears in the display (only possible if no video recording is currently running).

- The buttons „◀◀“ (7) and „▶▶“ (9), for example permit changing functions or settings in the setup menu or selection of a video or photograph in playback mode.
- The button „↶“ (10) serves, e.g., to leave a function or setting in the setup menu.

f) Pushing on/Turning/Taking off Clip

- If the small clip is enclosed separately, push it into the respective slot at the rear of the surveillance camera.
- The clip can be turned by 360°, so that the surveillance camera can be attached very well in many locations.
- If the clip is to be removed, turn it up.

Then push the small unlocking button (see hand symbol on the right) and pull out the clip.



g) Resetting the Surveillance Camera

If the surveillance camera does not react to the push of a button or if chaotic characters appear in the display, briefly push the reset button (16) on the inside of the battery compartment.

Alternatively, you can also take out the battery for a few seconds and then insert it again.

h) Label for Internal Memory Card Slot

The enclosed labels can be used to cover the internal memory card slot and to „hide“ it or to make it more difficult to remove the memory card.

9. The Setup Menu

To call the setup menu, the surveillance camera must be on and no video recording must be running.

Then push the button „OK“ (8) until the 5 icons of the setup menu appear.



The buttons „◀◀“ (7) and „▶▶“ (9) call the respective submenu.

Confirm your selection by briefly pushing the button „OK“ (8).

→ The button „↶“ (10) leaves a submenu, function or the setup menu again without changes (cancel).

a) Submenu for System Settings („System Setup“)



After you have called the submenu for the system setup and confirmed with the button „OK“ (8), you can select the respective function with the buttons „◀◀“ (7) and „▶▶“ (9). Then push the „OK“ (8) button.

The following functions are available:

Selecting the language („Language“)

- Select the desired menu language with the buttons „◀◀“ (7) and „▶▶“ (9).
- Press the „OK“ button (8) to confirm.

Switching the password function on/off, changing the password („Password“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the password function is to be switched off or on.

→ When the password function is on, a 4-digit code (can be chosen freely between 0000 and 9999) must be entered when calling the setup menu.

- If you want to use a password, you can choose it between „0000“ and „9999“.

Use the buttons „◀◀“ (7) and „▶▶“ (9) to programme a number from „0“ to „9“; the button „OK“ (8) moves the input position by one digit.

When all 4 digits have been programmed (e.g. with the password „1 2 3 4“), push the button „OK“ (8) again for confirmation.

→ If the password is entered incorrectly 3x, the surveillance camera locks access to the setup menu for one day.

Selecting internal/external memory card slot („Data Storage“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to choose between the internal and the external memory card slot.
- Press the „OK“ button (8) to confirm.

Activating motion sensor („G-Sensor“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to switch the motion sensor on or off.
- Press the „OK“ button (8) to confirm.

→ With the motion sensor on, the surveillance camera issues a sound signal when the surveillance camera is moved (during video recording, only 1x per video, depending on the set video length).

The video is also protected from being overwritten (a lock icon appears at the upper left).

Automatic deactivation of the TFT-monitor („Auto LCD Off“)

- Select when the TFT monitor switches itself off if no button is pushed to save power with the buttons „◀◀“ (7) and „▶▶“ (9).

This function can either be switched off, or set to a time of 30 seconds, 1 minute or 3 minutes.

- Press the „OK“ button (8) to confirm.

Format memory card („Format“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the currently active memory card (in the internal or external memory card slot) is to be formatted or not.

→ When formatting, all data saved on the memory card are lost.

If you have inserted a memory card in both memory card slots, we recommend checking which memory card slot is currently active first.

Alternatively, remove the memory card from the surveillance camera that you do not want to format. This prevents accidentally formatting the wrong memory card.

- Press the „OK“ button (8) to confirm.

Switching the sound signal at pushing of a button on/off („Beep“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the surveillance camera is to issue a brief sound signal at each push of a button or not.
- Press the „OK“ button (8) to confirm.

Resetting to factory settings („Restore Default“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the surveillance camera is to be reset to factory settings or not.
- Press the „OK“ button (8) to confirm.

Display firmware version number („Version“)

- After calling the function, the firmware version number of the surveillance camera is displayed.
- Push the button „OK“ (8), to return to the function selection.

b) Submenu for Time/Date Settings („Time Setup“)



After you have called the submenu for the time/date and confirmed with the button „OK“ (8), you can select the respective function with the buttons „◀◀“ (7) and „▶▶“ (9). Then push the „OK“ (8) button.

The following functions are available:

Selecting the date format („Time Format“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to choose between the different date formats.

„YYYY/MM/DD“ = year/month/day

„DD/MM/YYYY“ = day/month/year

„MM/DD/YYYY“ = month/day/year

- Press the „OK“ button (8) to confirm.

Set the time and date („Time and Date“)

- Change the value of the position marked with the arrows with the buttons „◀◀“ (7) and „▶▶“ (9).
- Use the button „OK“ (8) to accept the setting and switch to the next position. After confirming the last position, the function selection appears again.

c) Submenu for Video Settings („Video Setup")



After you have called the submenu for the video setup and confirmed with the button „OK” (8), you can select the respective function with the buttons „◀◀” (7) and „▶▶” (9). Then push the „OK” (8) button.

The following functions are available:

Setting the frame rate („Frame rate")

- First, use the buttons „◀◀” (7) and „▶▶” (9) to select if the frame rate is to be set for regular videos or for time lapse videos. Then push the „OK” button (8) to confirm.
- Now use the buttons „◀◀” (7) and „▶▶” (9) to set the frame rate for video recording.

For normal videos, a value of 1 - 30 frames/s can be set.

→ The higher the frame rate, the more space will the video files need on the memory card.

For time lapse videos, you can set after how many seconds/minutes a picture for the video is recorded. You can set a value of 1 frame per 3 seconds („1 / 3 S”) to 1 frame per 5 minutes („1 / 5 M”).

- Press the „OK” button (8) to confirm.

Setting resolution („Video Resolution")

- Use the buttons „◀◀” (7) and „▶▶” (9) to choose between the video resolutions.

→ The higher the resolution, the more space will the video files need on the memory card.

- Press the „OK” button (8) to confirm.

Setting video length („Video length“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to set the interval for when a video file is to be saved and a new one started. You can choose 30 seconds, 1, 3, 5, or 10 minutes.

→ The surveillance camera will set up a new file per interval when the set video length is exceeded.

For example, if you set 1 minute and you record a video of 5 minutes, you will have 5 separate video files with a length of 1 minute each on the memory card.

- Press the „OK“ button (8) to confirm.

Switching the overwrite function on/off („Recycle Record“)

- Here, you can use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the respective oldest files are to be overwritten when the memory card is full.

→ When the motion sensor is switched on, its recorded videos are not overwritten!

- Press the „OK“ button (8) to confirm.

Record audio („Record Audio“)

- In this function, you can use the buttons „◀◀“ (7) and „▶▶“ (9) to set if the video is recorded with or without sound.

- Press the „OK“ button (8) to confirm.

Display time/date („Date Stamp“)

- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select if the time and date are to be displayed in the video or not.

- Press the „OK“ button (8) to confirm.

d) Submenu for Photo Settings („Picture Setup")



After you have called the submenu for the photo setup and confirmed with the button „OK” (8), you can select the respective function with the buttons „◀◀” (7) and „▶▶” (9). Then push the „OK” (8) button.

The following functions are available:

Resolution setting („Picture Resolution")

- Use the buttons „◀◀” (7) and „▶▶” (9) to select between the photo resolutions.

→ The higher the resolution, the more space will the photo files need on the memory card.

- Press the „OK” button (8) to confirm.

Photo mode („Capture Mode")

- Switch between manual and automatic photo mode in this function with the buttons „◀◀” (7) and „▶▶” (9).

- Press the „OK” button (8) to confirm.

→ After leaving the setup menu, you can record individual photographs in the manual photo mode using the button „OK”, as with a conventional photo camera.

In automatic photo mode, the surveillance camera automatically records pictures after „OK” has been pushed until you push „OK” again.

Display time/date („Date Stamp“)

- Use the buttons „**⏮**“ (7) and „**⏭**“ (9) to select if the time and date are to be displayed in the video or not.
- Press the „OK“ button (8) to confirm.

e) Submenu for the Display of Photographs/Videos („Play Back“)



Display or delete photos/videos

- After calling the submenu for displaying photos/videos and confirming with the button „OK“ (8), small preview images appear for the saved photos or videos (if the surveillance camera has already recorded any photos or videos).
- Use the buttons „◀◀“ (7) and „▶▶“ (9) to select the desired photo or video file and push the button „OK“ (8).

The bottom of the display shows the file type („PIC“ = photo, „MOV“ = video) and the date (year/month/day) and time (hours/minutes/seconds) when the photo or video has been recorded.

- If a video file has been selected, a still appears. Start or pause video playback by briefly pushing the button „OK“ (8).

Push the button „◀◀“ (7) or „▶▶“ (9) repeatedly to switch between different speeds for rewinding or fast forwarding (1x, 2x, 4x).

- When the picture or (video still) is displayed, you can delete it if desired. For this, keep the „OK“ (8) button pushed.

Then you can either delete the selected picture or video, or all photos and videos on the memory card.

Push the „OK“ (8) button for confirmation. A safety prompt appears. If you confirm the safety prompt, deletion starts.

- The button „↶“ (10) takes you back to the preview pictures (or farther back into the setup menu).

10. Recording a Video

- Switch on the surveillance camera.
- Make the required settings in the setup menu, e.g. for frame rate and resolution. Leave the setup menu again.
- Briefly push the button „M“ (6) repeatedly until you have chosen video mode. The upper left of the display shows a little video camera icon.
- Start or end the recording by briefly pushing the button „OK“ (8).

—→ If a recording is running, the LED (11) on the front flashes red.

- To play back the video just recorded directly, terminate the recording (briefly push the button „OK“ (8); see above). Keep the button „M“ (6) pushed for 3 seconds.

Then small preview pictures of available records appear; the last video recorded is already selected.

—→ Briefly push the „OK“ (8) button to play or pause the video.

- The button „↶“ (10) takes you back to the preview pictures (or farther back to the live screen).

11. Recording a Photo

- Switch on the surveillance camera.
- Make the required settings in the setup menu, e.g. the desired resolution. Leave the setup menu again.
- Briefly push the button „M“ (6) repeatedly until you have chosen photo mode. The upper left of the display shows a little photo camera icon.
- Briefly push the „OK“ (8) button to take a photo.

→ If automatic photo mode is active, the surveillance camera will record pictures continually. End this by pushing the button „OK“ (8) again briefly.

- To view the picture just taken, briefly push the button „M“ (6).

Then small preview pictures of available records appear; the last photo recorded is already selected.

Briefly push the „OK“ (8) button to display the photo on the screen.

- The button „↶“ (10) takes you back to the preview pictures (or farther back to the live screen).

12. PC Connection

The surveillance camera can be connected to a computer's USB port via the enclosed USB cable as well.



Observe that the USB port can provide a current of 500 mA. Therefore, only connect the surveillance camera directly to a computer or use a USB hub with a dedicated mains unit.

After connection to the computer, the memory card appears as a removable medium drive and you can view/play the photos/videos or copy or move them to the PC.

→ The PC shows only the memory card as removable medium drive that is activated in the setup menu (internal or external memory card slot, see chapter 9. a).

At the same time, the rechargeable battery in the surveillance camera is loaded.

13. Maintenance and Cleaning

The product is maintenance-free for you. Never take it apart (except for the procedure as described in these operating instructions for inserting/replacing the rechargeable battery). Repair or maintenance work must be carried out by a specialist.

You can use a clean, soft, dry cloth for cleaning. Dust can be very easily removed with a clean, soft brush and a vacuum cleaner.

Clean the lens and display very carefully, otherwise, there will be scratches.

Do not use any aggressive, chemical or abrasive cleaning agents, since these may cause discolorations or even material changes of the surface.

14. Disposal

a) Product



Electronic devices are recyclable waste and must not be disposed of in the household waste!



Dispose of the product according to the applicable statutory provisions at the end of its service life.

Remove the rechargeable battery from the surveillance camera and dispose of it separately from the product.

b) Batteries and Rechargeable Batteries

You as the end user are required by law (Battery Ordinance) to return all used batteries/rechargeable batteries. Disposing of them in household waste is prohibited!



Batteries and rechargeable batteries containing hazardous substances are marked with the adjacent symbol to indicate that disposal in the household waste is prohibited.

You may return used batteries/rechargeable batteries free of charge at the official collection points of your community, in our stores, or wherever batteries/rechargeable batteries are sold!

You thus fulfil your statutory obligations and contribute to the protection of the environment.

15. Technical Data

a) Surveillance Camera

Power supply	Lilon rechargeable battery
Sensor type	CMOS, 5 Megapixel
Video resolution	1280 x 720 or 848 x 480
Video frame rate	Adjustable 1 - 30 frames/s
Time lapse recording	Yes, adjustable (1 frame every 3 seconds to 1 frame every 5 minutes)
Video format	AVI (MJPEG)
Photo resolution	2560 x 1440, 1920 x 1080 or 1280 x 720
Photo format	JPG
Audio recording	Yes (can be activated/deactivated), PCM
Suitable memory card	microSD up to 2GB or microSDHC up to 32GB
Max. recording duration	Depending on the screen content and the set resolution or frame rate
Operating time	Up to 8 h at a full battery
Display type	TFT colour screen, diagonal 38 mm
Display resolution	128 x 128 pixels
Ambient conditions	Temperature -20 °C to +50 °C, humidity 0% to 90%, non-condensing
Dimensions	90 x 80 x 19 mm (H x W x D)
Weight	85 g (incl. Rechargeable Battery)

b) Rechargeable Battery

BuildLilon

Nominal voltage3,7 V

Capacity.1600 mAh

c) Mains Adapter

Operating voltage.100 - 240 V/AC, 50/60 Hz

Output.5 V/DC, 1 A