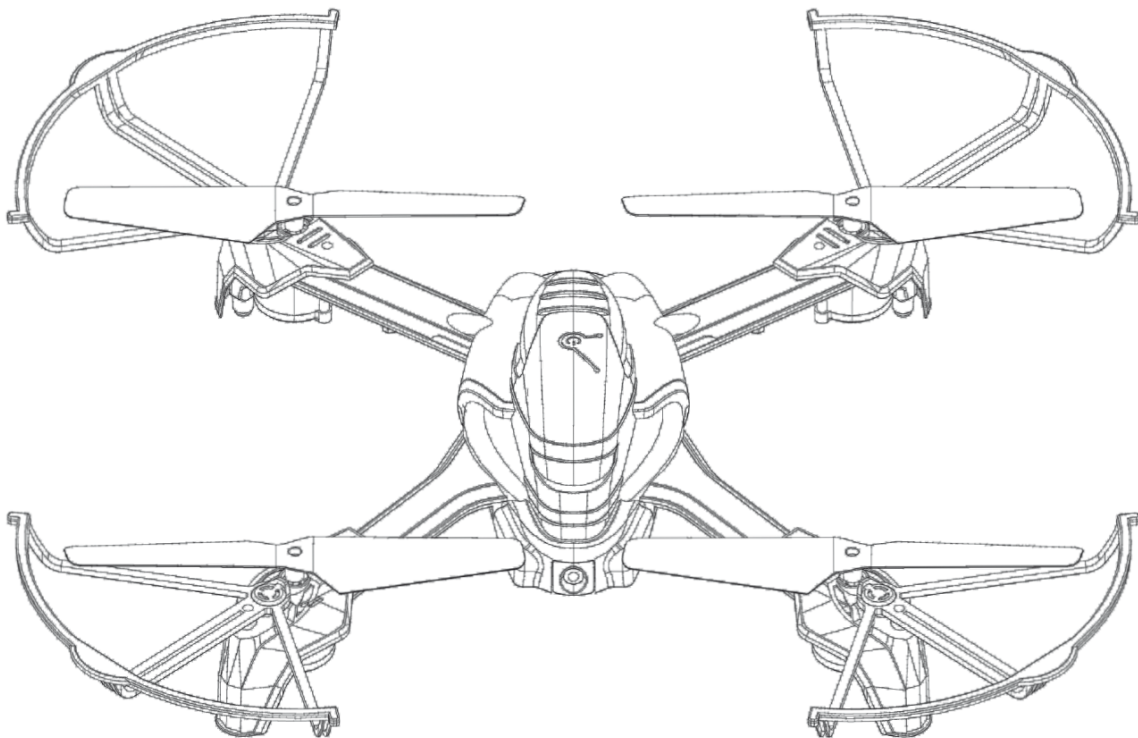

bml

Falcon



- **Modular design for easy part replacement**
 - Shoots 1080p Full HD video
 - Takes 5MP stills
- **Take off, land and return at the touch of a button**
 - 6-axis stabilization
 - Headless mode

USER MANUAL

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INTRODUCTION

Thank you for purchasing the BML Falcon drone (quadcopter). Simple controls and excellent manoeuvrability guarantee hours of fun. The BML Falcon drone shoots Full HD video, takes 5MP stills and saves them to the microSD card.

Before using this device, please read this User Manual and Safety Precautions. When using this product, please refer to the most up-to-date version of the User Manual, available for download at: www.bml-electronics.com.

Printing errors reserved. Images are for informational purposes.

SAFETY PRECAUTIONS

1. Do not expose the device to impact, do not drop on the ground and avoid anything which may lead to mechanical damage.
2. Do not place the device near objects which generate a strong magnetic field, such as magnets or electric motors. Do not place the device near objects that emit strong radio waves, such as antenna. Strong magnetic fields or radio waves can cause damage to the camera or corrupt the stored data.
3. Do not expose the device to high temperatures or direct sunlight.
4. Do not expose the device to rain or excessive moisture.
5. Only use a branded microSD card. Generic cards do not guarantee the correct functioning of the data storage.
6. To prevent loss of stored data, do not place the microSD card near a magnetic field or places where there is strong static electricity.
7. If the device overheats when charging, produces smoke or a suspicious odour, immediately disconnect the device and stop charging.
8. Keep out of reach of children whilst charging. Power cable can cause electric shock and may be a choking hazard.
9. Only charge under constant supervision.
10. Store in a cool, dry, dust-free place.

PACK CONTENTS

- Drone
- Remote control
- Battery
- Charging cable
- User Manual
- 4 replacement propellers
- 4 propeller guards
- Camera module
- Screwdriver

MOBILE APP*



PANTONMA



<http://bml-electronics.com/drones/app>

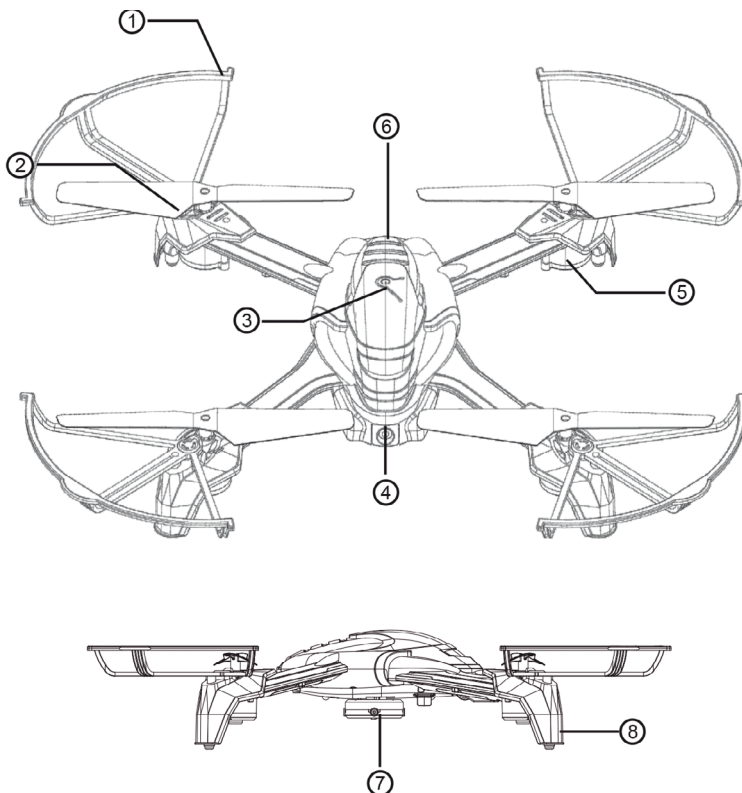
Connecting to the App

1. Turn the drone on. The drone LEDs will begin blinking slowly – this means it is ready to connect.
2. In the Wi-Fi settings on your mobile device, turn on Wi-Fi and connect to the network KD-****.
3. Open the app and select MY DRONE to enter the control interface.

*The connection with the mobile app only works when the FPV camera module is inserted.

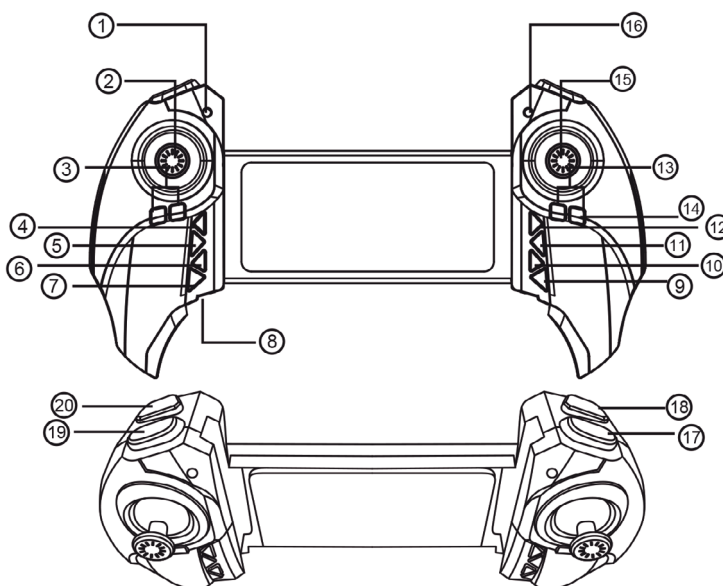
PRODUCT LAYOUT

1. Propeller guard
2. Propeller
3. Power button (hold for 2 seconds)
4. Camera module
5. Motor
6. Battery
7. Obstacle avoidance module
8. Landing gear



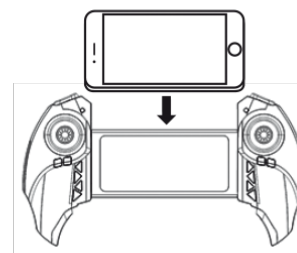
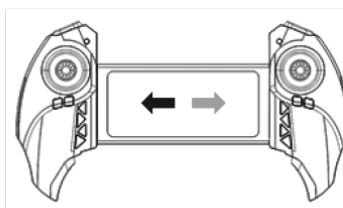
CONTROLLER LAYOUT

1. Charging indicator
2. Joystick power control
3. Rotate left/right
4. Controller power button
5. Camera up
6. Camera down
7. Flip
8. Charging connector
9. Headless mode
10. LED switch
11. Shift backward
12. Shift forward
13. Shift left/right
14. Switch left/right (long hold on start-up)
15. Joystick control direction
16. Launch indicator
17. Take off/land (hold for 3 seconds to turn off)
18. Speed switch
19. Take photo – press, shoot video – hold (LED on drone blinks)
20. Return to start point



INSERTING A MOBILE INTO THE CONTROLLER

1. Extend the controller.
2. Slide the mobile device into the controller.

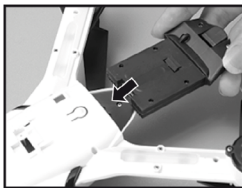
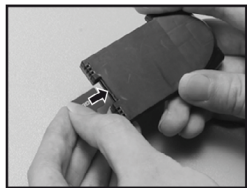


INSTALLING THE COMPONENTS

Camera module

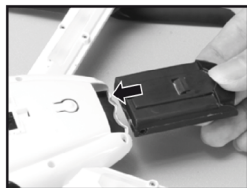
CAUTION: Make sure the drone is off before connecting the camera.

1. Insert the microSD card into the camera module.
2. Insert the camera module into the front of the drone.



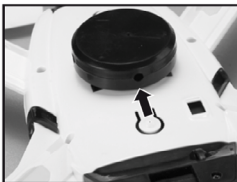
Battery

1. Insert the battery into the back of the drone.



Obstacle sensor

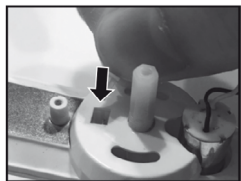
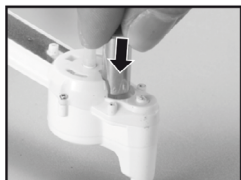
1. Insert the sensor into the grooves on the underside of the drone.
2. Slide the module into the grooves.



Motor

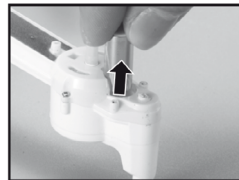
Mounting

1. Insert the motor into the opening.
2. Plug the motor wire into the socket.
3. Replace the landing leg and tighten the screw (clockwise).



Removing

1. Loosen the screw (counter-clockwise) and remove the landing leg.
2. Disconnect the motor wire from the socket.
3. Pull the motor out.

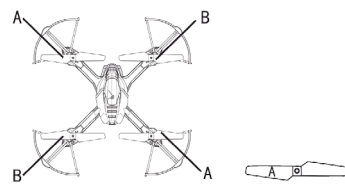


Propeller

1. Attach the propeller to the shaft.
2. Tighten the screw (clockwise).



CAUTION: For proper functioning, use the correct propeller for the correct motor. Each propeller is marked with a letter to indicate which motor it belongs to.



Propeller guard

Snap the guard on the arm and tighten the screw.



Removing the guard



Attaching the guard

CAUTION: If the drone crashes, check that the propellers and guards are not damaged or destroyed. If they are, they need to be replaced before the next flight.

CAUTION: If you do not want to use the guards, insert the plugs into the holes.

RECHARGING

Battery

1. Turn off the drone and press the release button to eject the battery.
2. Plug the charging cable into the socket in the battery.
3. Plug the USB connector into a USB powered socket. When charging, the red LED goes off and lights up again when fully charged.
4. Slide the battery into the back of the drone.

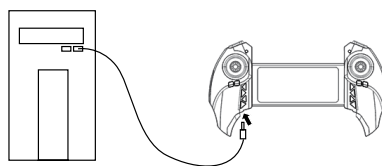
Charging time is approx. 90 minutes. Flight time is 6–8 minutes.



CAUTION: Do not charge the device unsupervised.

Controller

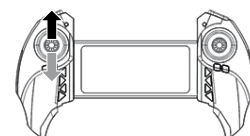
1. Make sure the controller is turned off and plug the power cable into the socket.
2. Plug the USB connector into a powered USB socket. The green LED is lit when charging. When charging, the red LED on the power cable goes off and lights up again when fully charged.



FLIGHT FEATURES

Connecting the controller to the drone

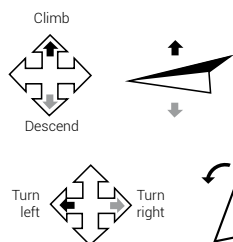
Push the power control joystick fully up. The LEDs on the drone start flashing to indicate that the remote is now connected. Press the take-off button to start the motors and move the power control joystick slowly upwards to begin take-off.



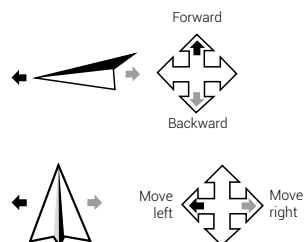
Basic flight controls

The left joystick controls height and the right joystick controls direction (forward, backwards, left right).

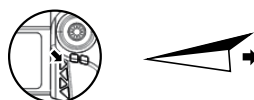
Left joystick



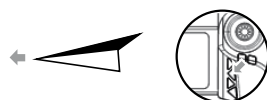
Right joystick



Step back



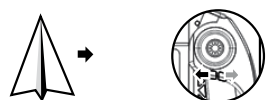
Step forward



Step rotate left/right



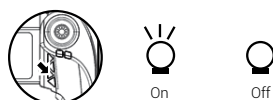
Step left/right



Camera direction



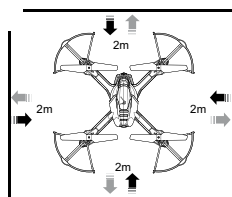
LED switch



SPECIAL FEATURES

Obstacle sensor

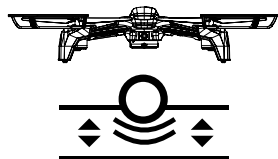
When the sensor detects an obstacle at a distance of 2 metres (depending on the environment), the drone stops moving. The sensor is activated automatically 1 metre above the ground. The sensor cannot prevent all crashes, so never fly too close to people and animals.



CAUTION: Obstacle detection only works at low speeds and in good visibility. The sensor cannot detect glass surfaces. Best results are achieved when detecting white walls. When sensor is working, it is not possible to use headless mode or the return to starting point button.

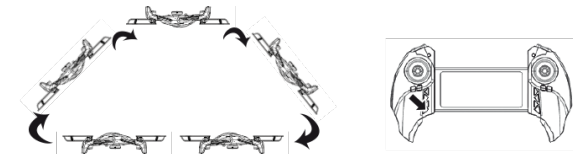
Maintaining height

When releasing the height control joystick, the drone remains hovering at the same height.



Flip

Climb to a height of at least 2 metres and press the Flip button. Then move the right joystick in any direction and the drone will flip up and over in that direction and back.



CAUTION: Flip does not work if the obstacle sensor and the camera module are attached. Once removed, the remote must be restarted. Flip also does not function when the battery is low.

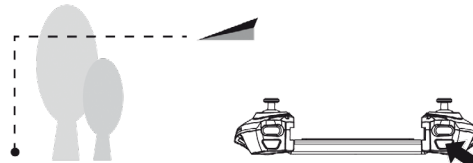
Speed switch

By pressing the speed switch, you can choose between slow (one beep), medium (two beeps) and high (three beeps) speed.



Return to start point

Press the button and the drone will fly back to its starting position. With the right joystick, you can control the flight back to the left or right. Move the right joystick up to abort. Only use the return function in the open air and when the air is calm. It cannot be guaranteed that this feature will return the drone to the exact same position as it depends on the surrounding conditions. Therefore, when flying, keep the drone under control and under supervision so you can safely land it. Using the return function does not exclude you from damage or injury liability.



Headless mode

Turning on

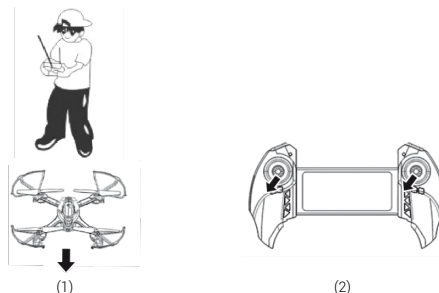
After pairing the drone with the controller, press the headless mode button. The controller beeps and the LEDs on the drone blink.

Turning off

When the drone is in headless mode, press the headless mode button. The controller then beeps and the LEDs light up.

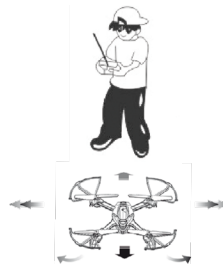
Setting forward direction

Before turning on headless mode, you need to set the direction forward. Point the drone so that it is facing the same direction as you (1). Then move both joysticks to the left and hold them in this position for 2 seconds (2). The LEDs on the drone will flash.



Controls in headless mode

In headless mode, the forward direction is always the direction that has been pre-set. Always stand facing this direction during operation. In headless mode, it does not matter which direction you turn the drone – when moving the right joystick forward, it always flies away from you, even if it is facing sideways.



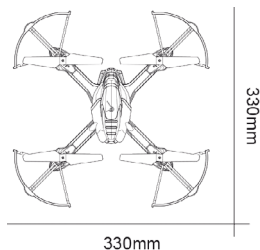
TIPS:

1. The simplest way to fly in headless mode is to carefully set the forward direction and after take-off to make sure you stand facing this direction and not to move.
2. If the drone moves differently than it should, abort the flight and set it up again.

PARAMETERS

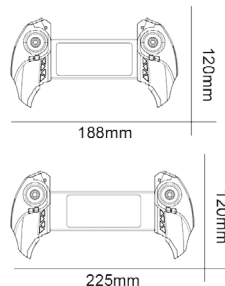
Drone

Dimensions	330 x 330 x 68 mm
Weight	135 g
Flight time	6–8 minute
Operating temp.	0 °C – 40 °C
Camera angle of movement	90°
Support SD card	4 GB microSD
Battery capacity	650 mAh



Remote controller

Dimensions	225 x 120 x 50 mm
Weight	155 g
Signal range	80 metrů
Operating temp.	0 °C – 40 °C
Battery capacity	80 mAh



TROUBLESHOOTING

Problem	Cause	Solution
Drone LEDs blinking and drone unresponsive	1. Drone is not connected to the controller 2. Low battery	1. Reconnect the controller 2. Charge battery
Propeller spinning but drone doesn't climb	1. Low battery 2. Propeller damaged	1. Charge battery 2. Replace propeller
Drone shaking violently	Propeller damaged	Replace propeller
Drone flying unbalanced	1. Propeller damaged 2. Motor damaged	1. Replace propeller 2. Replace motor
After crash, drone uncontrollable	Gyroscope unbalanced	Restart drone

SAFETY PRECAUTIONS

- Use only the charger supplied with your device. Use of another type of charger may result in malfunction and/or danger.
- Do not use the charger in high moisture environment. Never touch the charger when your hands or feet are wet.
- Allow adequate ventilation around the charger when using it to operate the device or to charge the battery. Do not cover the charger with paper or other objects that will reduce cooling. Do not use the charger while it is inside a carrying case.
- Connect the charger to a proper power source. The voltage requirements are found on the product case and/or on the packaging.
- Do not use the charger if it is visibly damaged. In case of damage, do not repair the equipment yourself!
- In case of device overheating, immediately disconnect the power source.
- Charge the device under supervision only.

SAFETY NOTICES FOR LI-ION BATTERIES

- Before first use, fully charge the battery.
- For charging only use chargers, that is specified for this type of battery.
- Use standard cables for charging, otherwise it could damage the device.
- Never connect to a mechanically damaged charger or if the batteries are swollen. Do not use batteries in this condition due to risk of explosion.
- Do not use any damaged adapter or charger.
- Charge at room temperature, never charge at a temperature below 0°C or at a temperature higher than 40°C.
- Avoid dropping the battery, don't puncture, or mutilate it. Definitely do not attempt to repair a damaged battery.
- Do not expose the charger or battery to moisture, water, rain, snow or any kind of various liquids.
- Do not leave the battery in the car, do not expose to direct sunlight and do not place it near heat sources. Strong light or high temperatures can damage the battery.
- Never leave batteries without supervision during charging, short circuit or accidentally overcharge. Some batteries are unsuitable for fast charging or being charged excessively. This can cause a shock, or due to charger failure, may cause leakage of aggressive chemicals, explosion or subsequent fire!
- In the case of excessive heating of the battery during charging, immediately disconnect it from the power supply.
- Do not place charger and charging battery on or near flammable objects. Beware of curtains, carpets, tablecloths etc.
- Once the battery or device with integrated battery is fully charged, disconnect it from the power supply.
- Keep the battery out of the reach of children and animals.
- Never disassemble the charger or battery. If the battery is integrated, do not disassemble the device, unless stated otherwise. Any such attempt is dangerous and can cause injury or damage to the product and subsequent loss of warranty.
- Do not dispose worn or damaged batteries into the trash, fire or into heating devices, but hand them in at collection points for hazardous waste.

CARING FOR YOUR DEVICE

- Taking good care of your device will ensure trouble-free operation and reduce the risk of damage.
- Keep your device away from excessive moisture and extreme temperatures and avoid exposing your device to direct sunlight or strong ultraviolet light for extended periods of time.
- Do not drop your device or subject it to severe shock.
- Do not subject your device to sudden and severe temperature changes. This could cause moisture condensation inside the unit, which could damage your device. In the event of moisture condensation, allow the device to dry out completely before use.
- The screen surface can easily be scratched. Avoid touching it with sharp objects.
- Never clean your device when it is powered on. Use a soft, lint-free cloth to wipe the screen and the exterior of your device. Do not use paper towels to clean the screen.
- Never attempt to disassemble, repair or make any modifications to your device. Disassembly, modification or any attempt at repair could cause damage to your device and even bodily injury or property damage and will void any warranty.
- Do not store or carry flammable liquids, gases or explosive materials in the same compartment as your device, its parts or accessories.
- To discourage theft, do not leave the device and accessories in plain view in an unattended vehicle.
- Overheating may damage the device.

OTHER INFORMATION

1) For households: This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling. In case of incorrect disposal of this kind of wastes user can be fined according to national laws. User information for disposal of electric and electronic devices in countries outside the EU: The symbol stated above (crossed recycle bin) is valid only in countries in European Union. For correct disposal of electric and electronic devices ask your city hall or distributor of these devices. Everything is expressed by the symbol of crossed recycle bin on product, cover or printed materials.

2) You can determine a warranty service at the place of purchase. In case of technical problems or queries contact your dealer who will inform you about the following procedure. Follow the rules for work with electric devices. User is not allowed to disassemble the device neither replace any of its components. To reduce the risk of electric shock, do not remove or open the cover. In case of incorrect setup and plug in of device you will expose yourself risk of electric shock.

DECLARATION OF CONFORMITY

Hereby, Vohire s.r.o., declares that all BML products are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. Products are intended for sale without any restriction in Germany, Czech Republic, Slovak Republic, Poland, Hungary and other EU countries. Products are covered by a two year warranty, unless otherwise stated. You can download the Declaration of Conformity from the website www.bml-electronics.com/support/doc

- Frequency band(s) in which the radio equipment operates: 2446 MHz - 2481 MHz
- Maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates: 10 dB

LIMITED WARRANTY

BML products are guaranteed against manufacturing defects, Vohire s.r.o. sole obligation in the event of such defects during this period is to repair or replace the defective part or product with a comparable part or product at Vohire s.r.o. sole discretion. Except for such repair or replacement, the sale, processing or other handling of this product is without warranty, condition or other liability even though the defect or loss is caused by negligence or other fault. Damage resulting from use, accident, or normal wear and tear is not covered by this or any warranty. Vohire s.r.o. assumes no liability for any accident, injury, death, loss, or other claim related to or resulting from the use of this product. In no event shall Vohire s.r.o. be liable for incidental or consequential damages relating to or resulting from the use of this product or any of its parts. Returns or replacements of parts and/or products may be subject to shipping, handling, replacement and/or restocking fees.

AUTHORISED REPRESENTATIVE

Vohire s.r.o.,
Papírenská 180/1, Bubeneč, 160 00 Praha 6, Czech Republic.

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