



# JAMARA HL20 Radio-Controlled Helicopters Instructions

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**JAMARA HL20 Radio-Controlled Helicopters**



## General information

Jamara e.K. is not liable for any damage caused to the product itself or through this, provided this is due to improper operation or handling errors. The Customer alone bears the full responsibility for the proper use and handling, including without limitation, the assembly, the charging process, the use and choice of the operation area. Please refer to the operating and user instructions, it contains important information and warnings.

- **This model is not a toy!**

Not suitable for people under 14 year.

- **Warning:** – Not suitable for children under 36 months.

- **RISK OF SUFFOCATION!**

- Contains small parts which can be swallowed. Keep away necessarily from children.
- This device is not intended for use by individuals (Including children) with reduced physical sensory, mental abilities, lack of experience and/or knowledge, unless they are supervised in how the device is to be used.
- Read the complete instructions and security instructions carefully before using the model.

Caution! Please fully and carefully read warnings/ safety instructions. These are for our own security and can avoid accidents/injuries.

## Certificate of Conformity

Hereby JAMARA e.K. declares that the product „HL20 No. 410149“ complies with Directive 2014/53/EU, 2011/65/EU.

The full text of the EU Declaration of Conformity is available at the following Internet address: [www.jamara-shop.com/Conformity](http://www.jamara-shop.com/Conformity)

## Attention!

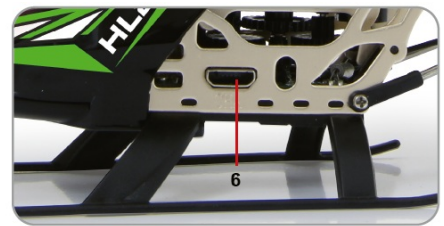
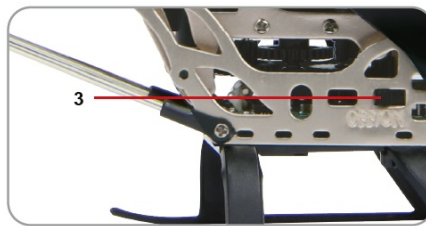
**Before operating:** First switch on the model then the transmitter.

**When finished:** First switch off the model then the transmitter.

- Never operate your model beyond sight. Both the maximum visibility as well as the max. range of your model will depend on many factors such as weather, location and interfering frequencies. Therefore, before each use perform a range test with a second person securely holding the model and also check how the model reacts if

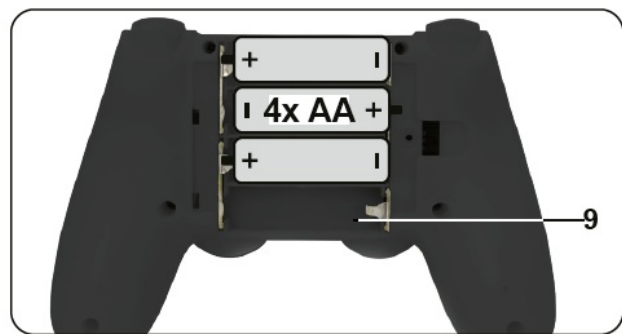
there is a signal failure e.g. when empty transmitter batteries are installed.

## Component Description



1. Rotor Head
2. Main rotor
3. On-Off Switch
4. Stabilizer bar
5. Tail Rotor
6. Charging Socket

## REMOTE



1. Illumination ON/OFF
2. Throttle Stick
3. ON/OFF Switch
4. Without functional
5. Performance button
6. Control Stick (left/right, forward/backward)
7. Turbo button
8. Trim
9. Battery cover

### Fitting the batteries

Observe the polarity.

## Battery warning

- Non-rechargeable batteries are not to be recharged!
- Do not open! Do not dispose of in fire!
- Do not mix old and new batteries!

- Do not mix alkaline batteries, standard (carbon-zinc) or rechargeable batteries!
- Rechargeable batteries are to be removed from the toy before being charged!
- Rechargeable batteries are only to be charged under adult supervision!
- The supply terminals are not to be short-circuited!

## BUTTON



### 1. Turbo button

The model has two flight modes, for beginner (A) and for advanced (B).

**A.** Beginner mode

**B.** Advanced mode (once press the switch of the remote control, then the model will change into the advanced mode. By pressing the turbo button the RPM of the rear rotor is increased and the model will fly faster.

### 2. LED

About the switch on the transmitter, you can turn off and on the light at the model.

### 3. Demo function

By pressing the demo button on the transmitter, it will take you through a predetermined sequence of maneuvers. By operating the control stick the demo mode is switched off. During the demo modus the gas must be organized manuell.

## Charging

1.



Insert the USB cable into the USB Charging port of the controller.

2. Connect another end of the wire to the interface of the model. During charge a LED in the model will light up

3. After charge, the LED will switch off

The charging process should take approx. 20 – 30 min. and should give you approx. 5 – 10 min. flying time.

### Attention!

Let the mode

## Danger!

Always disconnect the model from the charger immediately after charging. Always disconnect the charger from the power supply immediately after disconnecting the model. Inserting the rechargeable model or charger after charging will result in damage to the model, charger or the power supply (fire hazard).I cool for minimum 8 minutes off sufficiently after each use before putting it back into operation. Overheating can damage the

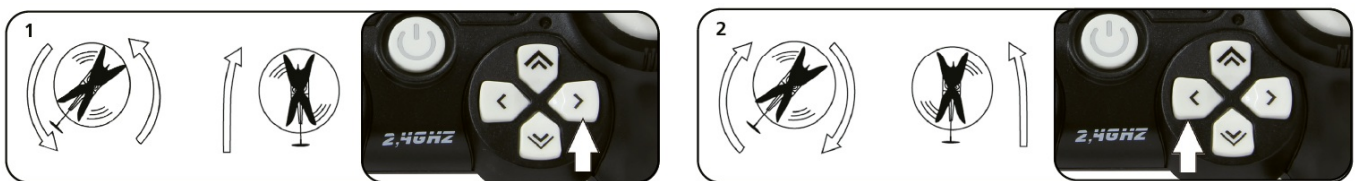
electronics or may result in fire.

## Binding of transmitter and model

Before using the model it must be connected with the transmitter! Proceed as follows:

- Switch the model on first, then the transmitter
- The LED on the transmitter starts to flash.
- Slide the throttle lever all the way forward and once back. The Power LED lights permanently.
- The model and the controls are now bound to each other.
- The model is ready for use.

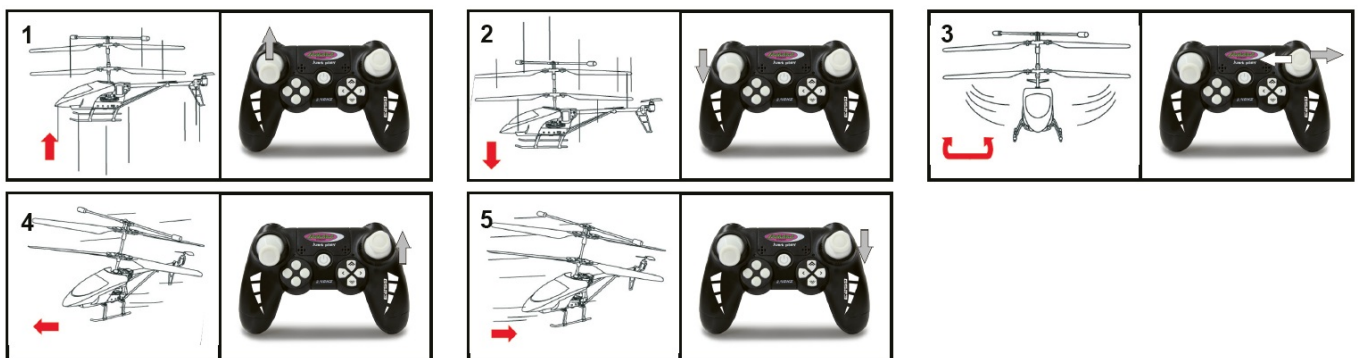
## Trimming the Model



Due to battery tolerances some trimming may be required to achieve a straight flight path. Climb the model to around 1.5 meters and observe it closely.

1. If the model rotates to the right (clockwise) without moving the steering stick, the Trim right can be used to correct the unwanted movement until the model flies straight.
2. If the model rotates to the left (anti-clockwise) without moving the steering stick, the Trim left can be used to correct the unwanted movement until the model flies straight.

## Flight controls



1. Climbing
2. Descending
3. Rotating
4. Forwards
5. Backwards

**Attention!**

The model has an overload and an undervoltage cut-off. If the rotor is blocked or the battery is empty, the motors will automatically switch off for safety reasons and the LED on the model starts blinking. If the overload shutdown engages and the cause has been removed, you should be able to continue flying after a few seconds. If the overload shutdown engages or the battery is nearly empty it may be necessary that you have to turn on the model and the transmitter once again to continue flying. If the undervoltage cut-off is performed the model will switch off completely to prevent a discharge. Only once the battery is sufficiently charged the model can be used.


### **Danger!**

Always turn off the model immediately after each use. The battery can be deep-discharged by accidentally turning it on. By deep discharge the battery it loses power, can be damaged so much that charging or discharging is no longer possible and the battery can ignite itself during charging or discharging (fire hazard). Never attempt to charge or discharge deep-discharge batteries. The voltage of the battery should never be under 3 volt to avoid a deep discharge. The fully charged battery has a voltage of 4,2 volt. After usage, the intact battery has to be fully charged after a cooling phase of at least 10 min but not longer than 12 hrs. This is to avoid a deep discharge caused by a self-discharge. When not using or storing the battery it has to be checked at least every three months for voltage (min. 3,9 Volt) or damage and if necessary charged or disposed.

### **Problems and solutions**

- The helicopter does not react.
  - 1. The receiver is not receiving a signal..
    - Make sure that the transmitter and receiver are bound.
  - 2. The batteries in the model or the transmitter are empty.
    - Charge the flight pack or, change the transmitter batteries.
- The motor does not turn.
  - 1. The motor is too hot – Allow the motor to cool down.
- The helicopter is uncontrollable.
  - 1. The helicopter is damaged
    - Check for damage
  - 2. The wind is too strong
    - Do not fly in strong wind.
- The helicopter fails to climb.
  - 1. The rotor blades are not spinning fast enough
    - Push the throttle stick further forward.
- The helicopter lands too hard.
  - 1. The flight battery is not fully charged
    - Fully charge the battery
  - 2. The throttle stick was pulled back too fast
    - Pull the throttle stick back gently to softly land the model
- The transmitter is not switched on.
  - 1. The transmitter is not switched on
    - Switch the transmitter on.
  - 2. The batteries are incorrectly fitted
    - Fit the batteries correctly.
  - 3. The batteries are empty
    - Replace the batteries.

## Spare parts

	<b>No. 413018 (4 pcs)</b> Rotorblätter Rotor blades Pales du rotor Pali rotore Rotor principal Rotorblad Pá do rotor Rotorbladder Potkurilapa Rotorblad		<b>No. 038158</b> Heckrotorblatt Tail rotor blade Rotor de queue Rotore di coda Palas de rotor de cola Achterste rotorblad Pá do rotor traseiro Stjärtrotorblad Takapotkurilapa Blad f/ bagerste rotor		<b>No. 038163</b> Landegestell Landing skid Patin Carrello Patines de aterrizaje Landraam Quadro de aterrissagem Landningställ Alusta Landingsramme
	<b>No. 038177</b> USB Ladekabel USB charging lead Cable de charge USB Cavo di ricarica USB Cable de carga USB Laadkabel USB Cabo de alimentação USB Laddningskabel USB USB-varausjohto USB opladerkabel		<b>No. 413019</b> Kabinenhaube Canopy Verrière Naca Canopy Cabine cover Tampa da cabine Hytt täcke Ohjaamon kansi Kabinedæksel		<b>No. 413020</b> Sender Transmitter Radiocommande Trasmittente Emisora Afstandsbediening Control remoto Fjärrkontroll Kaukosäädin Fjernstyring
	<b>No. 038171</b> Stabilisatorstange Stabiliser bar Barre de stabilisateur Barra estabiliz. Estabilizador Stabilisatorahendel Barra estabilizadora Stabilisatorstall Vakaajatanko Stabilisatorstang		<b>No. 038157 (2 pcs)</b> Koppelstange Steering rod Tige de renvoie Supporto pala Conectores de la barra Koppelstang Barra de acoplamento Kopplingsstang Kytikintanko Koblingstang		

## Security instructions

- Read the complete instructions and security instructions carefully before using the model.
- Warning: Risk of eye injury! Keep a safe distance of 1 – 2 meters to yourself or others to protect against injury.
- The model should not be changed in any way, doing so will invalidate the guarantee.
- Do not fly in temperatures above + 45° C or below 10° C.
- Protect the model from strong sunlight, moisture and dust.
- Be aware that some parts of the model may get hot.

## Operating

- Attention! In some countries it is a legal requirement to carry third party indemnity insurance when operating a radio controlled model. Please ask your local dealer, governing body or your insurance company for details.
- Never use the model near an airport, railway or roads. Always keep a safe distance from potentially hazardous and specially protected areas.
- Do not operate your model near radio stations, power lines, transformer boxes or similar facilities! This can result in radio interference, causing loss of control over the model.
- It must be observed that neither persons or animals or other obstacles are within the operating environment. Keep hands, hair and loose clothing away from the rotor, not reach into the rotors.
- The Outdoor-model can only be flown in good weather. Do not fly in wind, rain or thunderstorms.
- Find a place to fly which complies with any laws, and is free from obstacles such as trees, houses and / or other obstacles.
- To ensure safety and for best results, the model may only be flown in a large open room (~ 6 x 5 x 2,5 m), free of obstacles such as lights or furniture. In addition, no draft should be available.
- Do not let the model fall or crash from high height. This may affect the flight characteristics and lifetime of your model.



## Safety precautions for battery

Because of the high power compactivity (up to 150 Wh/kg) the cells are quite dangerous and need special care! The company Jamara excludes explicitly, all types of liability for damages, that can occur when using the Lithium-Polymer-Cells inadequate.

- When using the battery incorrect there is a risk of getting fire or acid injuries.
- Overcharging, too high power, or discharging at low level destroys the cell.
- Protect from mechanical stress (squeezing, pushing, bending, drilling).
- Never open or cut batteries, do not throw into fire, keep away from children.
- Handle damaged or leaking battery with care. Injuries or damages to the product can occur.
- Under no circumstance short-circuit the device and always watch out for correct polarity.
- Protect batteries from heat above 65 °C , mount away from hot objects (for example exhaust pipe).
- Before storing batteries (for example in the winter) charge the battery. Do not store in fully charged or in non charged state!
- The contents of the cell is harmful for skin and eye.
- If the content comes into contact with skin, clean with plenty of water and take off moistened clothes.
- If the content comes into contact with the eyes, clean with plenty of water and consult a doctor.

If the cell overheats, swells, burns or smoke is coming from it, do not touch it under any circumstances. Keep away in a safe distance and prepare adequate extinguishing agents such (No water explosion, well dry sand, fire extinguishers, fire blanket, salt water).

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## Disposal restrictions

Batteries and accumulators must not be disposed of in domestic waste. You are obliged to dispose of batteries (separate collection) appropriately. After use you can return batteries free of charge to the retail store. As batteries contain substances that can be irritant, can cause allergy and are highly reactive, separate collections and proper recycling is important to the environment and to your health. If the batteries are marked with a chemical symbol Hg, Cd or Pb below the crossed-out waste bin on wheels it refers to that more than 0.0005% of mercury (Hg), more than 0.002% of cadmium (Cd) or more than 0.004% Lead (Pb) is included.

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## Documents / Resources





[JAMARA HL20 Radio-Controlled Helicopters](#) [pdf] Instructions  
Radio-Controlled Helicopters, HL20, Radio-Controlled, Helicopters

## References

- [jamara.com](#)
- [JAMARA - DoC \(Declarations of Conformity\)](#)
- [JAMARA - DoC \(Declarations of Conformity\)](#)
- [jamara.com](#)
- [Info-tri | Ministères Écologie Énergie Territoires](#)