EI-7157a

HYPERDRONE RACING STARTER KIT

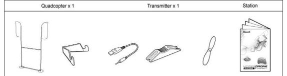
For ages 14+
Ab 14 Jahre
A partir de 14 ans
Leeftijd vanaf 14 jaar
A partir de 14 años
Dai 14 anni in su

Hereby, Silverlit Toys Manufactory Ltd declares that the radio equipment 84769 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.silverlit.com/a/certificate

MFR No. 84769

Delivery contents

Quadcopter x 1 | Transmitter x 1 | Station



Flag A | Smart Device Stand | Charging Cable | Tool for Rotor Replacement | Spare Rotors x 4 | Instruction Manual

Precautions, Warning & Statement

The crossed-out dustbin symbol indicates that batteries, rechargeable batteries, button cells, battery packs, etc. must not be put in the household waste. Batteries are harmful to health and the environment. Please help to protect the environment from health risks. If the toy is out of use, please use common household tool to break the product for built-in rechargeable battery operated toy or unscrew the battery door for replaceable battery operated toy, then take the battery out from the toy. Dispose of battery in accordance with your local battery recycling or disposal laws.

WEEE
When this appliance is out of use, please remove all batteries and dispose of them separately. Bring electrical appliances to the local collecting points for waste electrical and electronic equipment. Other components can be disposed of in domestic refuse.

FCC Statements
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
1)This device may not cause harmful interference, and
2)This device must accept any interference received, including interference that may cause undesired operation.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Safety Precautions:

Warning: Conversion or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the product.
- The charging cable is tailor-made for the LiPo rechargeable battery used in quadcopter. Do not use it to charge any battery other than that in the quadcopter.

Special notes:
- Please read the operation instructions carefully prior to the first use.
- This product intended to be used in domestic area (house and garden) only.
- Do not change or modify anything on the quadcopter.

Battery warnings:
- Non-rechargeable batteries are not to be recharged.
- Rechargeable batteries are to be removed before being charged. (Transmitter and Station)
- Rechargeable batteries are only to be charged under adult supervision.
- Different types of batteries or new and used batteries are not to be mixed. (Transmitter and Station)
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with correct polarity.
- Exhausted batteries are to be removed from the product. (Transmitter and Station)
- The supply terminals are not to be short-circuited.
- Do not mix old and new batteries. (Transmitter and Station)
- Do not mix alkaline, standard (carbon-zinc) or rechargeable batteries. (Transmitter and Station)

Quadcopter is equipped with a LiPo rechargeable battery, please pay attention to the following cautions for safety use:
- Do not dispose the battery in fire or heat.
- Do not use or leave the battery near a heat source such as fire or heater.
- Do not strike or throw the battery against hard surface.
- Do not immerse the battery in water, and keep the battery in a cool dry environment.
- When recharging, only use the battery charger specifically for that purpose.
- Do not over-discharge the battery.
- Do not connect the battery to an electrical outlet.
- Do not directly solder the battery and pierce the battery with a nail or other sharp object.
- Do not transport or store the battery together with metal objects such as necklaces, hairpins etc.
- Do not disassemble or alter the battery.
- Charge the battery every 6 months.

Notes:
- New alkaline batteries are recommended to use in this product to obtain best and maximum performance.
- This product must only be used with the recommended charger.

Battery requirements (Station):
Power Supply : ⎓
Rating : 4.5 V DC ; 0.9 W
Batteries : 3 x 1.5 V "AA"/LR6/AM3 (not included)

Battery requirements (Transmitter):
Power Supply : ⎓
Rating : 4.5 V DC ; 0.2 W
Batteries : 3 x 1.5 V "AA"/LR6/AM3 (not included)

Care and Maintenance:
- Always remove batteries from the product when it is not being used for a long period of time. (Transmitter only)
- Regularly examine for damage to the plug, enclosure and other parts. In the event of any damage, the product must not be used with the transmitter charger until the damage has been repaired.
- Wipe the product gently with a clean cloth.
- Keep the product away from direct heat.
- Do not submerge the product into water that can damage the electronic assemblies.

Tip! SAFETY
- Quadcopter piloting requires specific skills and should be learned under direct supervision of an experienced adult.
- Never operate this product if it has damaged parts.
- Caution. Do not start up and fly when persons, animals or any obstructions are within the flying range of the quadcopter.
- For safe use, the room where the toy is used must be sufficiently large.
- Do not fly the quadcopter in the vicinity of water and power lines.
- Always keep your eyes on the quadcopter and prevent it from landing or crashing near your head, your body, or on other people.
- Stand during operation in order to get out of the way of the quadcopter quickly if necessary.
- Always switch the quadcopter and the transmitter off when not operating.
- Warning! Do not touch the running rotors. Keep hands, hair and loose clothes away from moving parts to avoid injury.
- Never hold or throw any objects into the running rotors.
- Caution. Risk of eye injuries. Do not fly near your face to avoid injuries.
- Keep this instruction manual for future reference.

The normal function of the product may be disturbed by Strong Electro Magnetic Interference. If so, simply reset the product to resume normal operation by following the instruction manual. In case the function could not resume, please use the product in other location.

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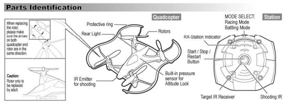
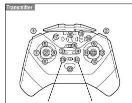
Battery requirements (Quadcopter):
Power Supply : ⎓
Rating : 3.7 V DC ; 12 W
Batteries : 1 x 3.7 V LiPo battery (included)
Capacity : 250 mAh

Parts Identification



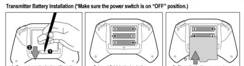
Transmitter



	QUADCOPTER CONTROL MODE (Normal Quadcopter Control)	RACING CONTROL MODE (Similar to RC Car Control)
1, 2	Shoot Button (press once to lock on opponent)	
3	RX Low Battery Indicator	
4	TX Power Indicator	
5	Throttle / Up (hover mode)	Forward
6	Down (hover mode)	Backward
7	CCW Turn	Side Left
8	CW Turn	Side Right
9	Forward	Up
10	Backward	Down
11	Side Left	Left Turn
12	Side Right	Right Turn
13	Racer Control Mode	
14	Quadcopter Control Mode	
15	Power (ON/OFF)	
16	PITCH Trimmer (FW / BW)	
17	YAW Trimmer (CW / CCW)	
18	ROLL Trimmer (L / R)	
19	Channel Selector (1-8)	
20	Auto Take off / Landing / Stop (press & hold over 2s)	
21	Fly Mode Setting	
22	Flip control	

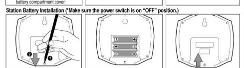
Battery Installation & Charging

Transmitter Battery Installation (*Make sure the power switch is on "OFF" position.)



1. Press down the button (1) on the transmitter, and then follow the arrow (2) direction to push out the battery compartment cover.
2. Insert 3 AA batteries in the battery compartment with correct polarity.
3. Close the battery compartment.

Station Battery Installation (*Make sure the power switch is on "OFF" position.)

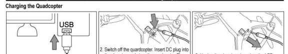


1. Press down the button (1) on the transmitter, and then follow the arrow (2) direction to push out the battery compartment cover.
2. Insert 3 AA batteries in the battery compartment with correct polarity.
3. Close the battery compartment.

Warning !
Remove these batteries from the unit by pulling up on one end of each battery positive by hand.
DO NOT remove or install batteries using sharp or metal tools.

Note: When the power indicator on the transmitter starts blinking, replace the batteries.

Charging the Quadcopter



1. Connect the USB cable to a USB socket.
2. Switch off the quardcopter. Insert DC plug into the charging socket on the quadcopter. The charging process will begin automatically and the green LED on quadcopter will light up.
3. Unplug the charging plug when the LED turns off, charging is completed.

Note: 1. The quadcopter can operate for about 4- 5 minutes per every 25-40 minutes charging.
2. Before recharging the battery, wait 10 - 15 minutes for it to cool down.

Flying Your Hyperdrone

Tip! CONTROLLING
- For controlling the sticks on transmitter, try not to push the sticks immediately any extreme positions. It should be like steering a bicycle rather than pressing computer game sticks.
- For the novice pilot (after the trimming procedure is completed), it is highly recommended to focus exclusively on learning to control the throttle stick first. If the quadcopter turns around by itself there is no need to keep it straight. For the first flight, it is important to learn to keep the quadcopter at a constant altitude of around 1 meter with very gentle inputs on the throttle stick. Once the pilot masters this, he may start learning to take control with the direction stick.

1. Procedure for PAIR / SYNC the quadcopter and transmitter
2.4 GHz technology allows for many quadcopter to fly without signal interference. A connection, PAIR / SYNC, must be made between the quadcopter and the transmitter to function. Follow these steps to PAIR/SYNC the quadcopter and the transmitter.
- Turn the ON/OFF switch of Quadcopter to ON position and the rear LED lights on the Quadcopter will flash (fig. 1). Then place it on the ground.
- Switch ON the transmitter and the Red LEDs light on the Quadcopter will flash (fig. 2). Push the throttle sticks to top then pull down to bottom (fig. 3). The power indicator on transmitter will light up. The pair/sync procedure is completed.

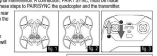


fig. 1 fig. 2 fig. 3

Self Calibration
Place the Quadcopter on a horizontal surface.
Pull the left and right stick to lower left corner (fig 4). After 8 seconds. You will hear a "BEEP" sound. The rotors will spin and calibration proceed. You can control the quadcopter now.
(Only do the Self Calibration when Quadcopter has an unstable fly.)

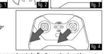
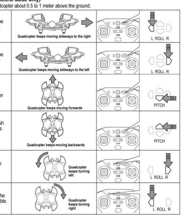


fig. 4

2. Flying Environment Requirements
2.1. Before your first flight, please study this Instruction Manual and understand all the features and controls. For those who do not have any flight experience, please prior to seek instruction from an experienced person.
2.2. DO NOT fly in bad weather, such as rain, wind or fog.
2.3. The environment should be open and void of buildings or no other obstacles.
2.4. Keep the quadcopter away from obstacles, persons and animals, power lines, trees, lakes and rivers etc.
2.5. Try to avoid interference between the transmitter and other wireless equipment.

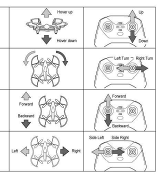
3. Trimming The Quadcopter (Quadcopter Control Mode Only)
- Gently push the throttle stick up to raise the quadcopter about 0.5 to 1 meter above the ground.



When the quadcopter keeps flying sideways to the right, push the ROLL trimmer toward left until the quadcopter is stable.	Quadcopter keeps moving sideways to the right
When the quadcopter keeps flying sideways to the left, push the ROLL trimmer toward right until the quadcopter is stable.	Quadcopter keeps moving sideways to the left
When the quadcopter keeps flying forward, push the PITCH trimmer downward until the quadcopter is stable.	Quadcopter keeps moving forwards
When the quadcopter keeps flying backward, push the PITCH trimmer upward until the quadcopter is stable.	Quadcopter keeps moving backwards
When the quadcopter keeps turning left, push the YAW trimmer toward right until the quadcopter stable.	Quadcopter keeps turning left
When the quadcopter keeps turning right, push the YAW trimmer toward left until the quadcopter stable.	Quadcopter keeps turning right

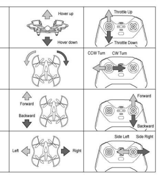
4. Flight Control (Racer Control Mode)

Fly up and down: The right stick controls the quadcopter elevation. Push the stick forward and the quadcopter will rise. Pull the stick downward and the quadcopter will descend. Only small amounts of stick position changes are required for smooth flying.	Hover up / Hover down; Up / Down
Turn left and right: Push the right stick toward left to turn the quadcopter anticlockwise, and push the throttle stick toward right to turn it clockwise.	Left Turn / Right Turn
Forward and backward: Maintain the quadcopter at a certain height. Push the direction stick upward to fly the quadcopter forward. Pull it downward to fly the quadcopter backward.	Forward / Backward; Forward / Backward
Flying sideways: Push the direction stick left to fly the quadcopter sideways to the left. Push it right to fly the quadcopter sideways to the right.	Left / Right; Side Left / Side Right



5. Flight Control (Quadcopter Control Mode)

Fly up and down: The left stick controls the quadcopter elevation. Push the stick forward and the quadcopter will rise. Pull the stick downward and the quadcopter will descend. Only small amounts of stick position changes are required for smooth flying.	Hover up / Hover down; Throttle Up / Throttle Down
Turn left and right: Push the left stick toward left to turn the quadcopter anticlockwise, and push the throttle stick toward right to turn it clockwise.	CCW Turn / CW Turn
Forward and backward: Push the right stick upward to fly the quadcopter forward. Pull it downward to fly the quadcopter backward.	Forward / Backward; Forward / Backward
Flying sideways: Push the right stick left to fly the quadcopter sideways to the left. Push it right to fly the quadcopter sideways to the right.	Left / Right; Side Left / Side Right



6. Lift-off Procedure (After Trimming Procedure):
- Put the quadcopter on a smooth surface. Uneven floor surface will affect its lifting off.
- Slowly increase the throttle.
- DO NOT look at the transmitter but focus on the quadcopter.
- As soon as the quadcopter leaves ground, reduce the throttle slightly.
  (In the worst case, quadcopter will go back to the floor, but that is better than crashing against the ceiling)
- VERY gently add the throttle if the quadcopter goes down.
- VERY gently reduce the throttle if the quadcopter goes up.
- For turning, give short and small inputs to the direction stick. (Most beginners will easily overcontrol the quadcopter)
- For moving forward, turn the quadcopter pointing to more open space before pushing the forward buttons.

7. Flight control: Take off and altitude control
7.1 Auto take-off & landing :

Press "Auto take off / landing" button (fig. 5A), Quadcopter flies up to a standard level and hover in the air (fig. 5B).
Press again "Auto take off / landing" button, Quadcopter will land automatically.
Press and hold over 2 seconds for emergency stop.

7.2 Manual take off :
Push up the altitude stick to ascend the Quadcopter (fig. 6A), push down to descend, release to lock the altitude (fig. 6B).

8. Arming motors:
Pull the altitude stick to lower left corner and right stick to lower right corner simultaneously and the motors will start spinning (fig. 7A & 7B). Push the altitude stick up to ascend the Quadcopter.
After descending the Quadcopter, disarm the motors by pushing both sticks at the same time as picture shown. (fig. 7A)

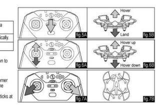
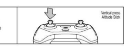
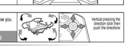


fig.5A fig.5B fig.6A fig.6B fig.7A fig.7B

9. Fly mode setting (Quadcopter Control Mode)
Vertically press one time the altitude stick, you will hear a "BEEP" sound to indicating **Beginner Mode.** Press again to enter **Intermediate Mode** after hears a "BEEP BEEP" sound. You can enter into the **Advance Mode** after you press one more time the button and hear "BEEP BEEP BEEP" sound.



10. 360° Flip
Keep the Quadcopter flying smoothly in the air. Vertical press the direction stick once, now you can pull the direction stick to achieve front, back, left, right side flip.



Note: When battery is low, the power indicator on the transmitter will start blinking

App Operation Steps

Viewer App requirements: IOS - minimum iOS 8.0 or above, Andriod - minimum Andriod 4.4 or above
Prepare your device to set up the operation procedure following the below steps :

Switch to Racing mode or Battle mode on the station to start the game | **Press "Start" on your smart device** | **Run the App** | **Place your smart device next to the station within 0.5 m**

Tip! GAME RECORD:
Install "Silverlit Hyperdrone" game app on your smart device to view your game record

Racing Game

1. Select the channel of Quadcopter by channel selector on TX, and complete the PAIR procedure with RX. (fig. 8)
2. Switch to RACE Mode on the transmitter to select racing game. Station is ready for Check-in when the red LED light up (fig. 9).
3. Put the Quadcopter(s) on the Station for Check-in.(fig. 10) A sound effect will indicated a successful check in.
4. Once all the Quadcopters are checked-in, place the Quadcopter(s) behind the Station
5. Press the "START" button of Station to start the game and a red LED will keep flashing.(fig. 11)
6. Take off the Quadcopters and fly toward the Station, when Quadcopter pass above (max. 1m) the Station at the first time, the Station will start counting the time automatically. The red LED and a yellow LED will light up for indicate the current lap.(fig. 12)
7. The time for every Quadcopter will be counted individually.
8. When the Quadcopter passes above the Station again, the first lap will be completed and the duration of this lap will be recorded and transfer to the Smart Device by Ultrasonic. At the same time, the time for the 2nd lap will be started counting.(fig. 13)
9. When the first Quadcopter finished the final lap, Station will show a "Champion" indication.

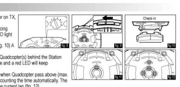


fig. 8 fig. 9 fig.10 fig.11 fig.12

10. When the other Quadcopters finished the final lap, Station will show a "Complete" indication.
11. When all the Quadcopters completed the final lap, the game will stop automatically, and the red LED will keep flashing every 2s. (For re-sending data, press and hold the button over 3s) (fig. 14)
12. Anytime could stop the game by press once the Start/Stop/Restart Button of the Station.
13. Press once the Start/Stop/Restart Button of the Station again for Check-in status.
14. Before each game started, other Quadcopter(s) can join the game either (1) select the same channel of the quited Quadcopter, or (2) select a new channel that haven't checked-in with Station
15. In condition (1), the new Quadcopter continues the record with previous Quadcopter; in condition (2) the new Quadcopter is started a new record.

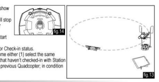


fig.14 fig.13

Battling Mode

1. Select the channel of Quadcopter by channel selector on TX, and frequency matched with RX.(fig. 15)
2. Switch to BATTLE Mode to select battle game, and Check-in when the red LED light up. (fig. 16)
3. Press the "START" button of Station once to start the game.
4. When the game begins, the yellow LED indicate the life of the station. (fig. 17)
5. During the game, the Station will be in different status: 'Defenseless' , when all red LEDs turn off, or 'Attack' status , when 3 red LEDs flash.
6. In "Attack" status, when the Quadcopters are within the shooting range, they are being "locked-on" by the Station. Station is unbeatable at this status.
7. In "Defenseless" status, Quadcopters are able to fly close to the Station and press the Shoot button to attack the Station.(fig. 18)
8. Life Point of the Station will be deducted when being attacked, total 12 Life Point of the Station.
9. After knock down every life indicator of station by Quadcopter, the station will be in 'Attack' status.
10. When the Life Point=0, the Station will show a 'Station lose' and 'Game Win' indication (with LED / SFX effects)
11. The game is last for max. 6min, if the Station still has Life Point, a "Game Loss" indication will show.
12. Anytime could stop the game by press once the Start/Stop/Restart Button of the Station and the red LED will keep flashing every 2s. (fig. 14)
13. Press once the Start/Stop/Restart Button of the Station again for Game Ready status.
14. During the game, Station will send data to the Smart Device through ultrasonic for showing the status and effects.

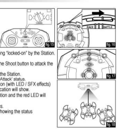
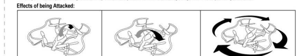


fig.15 fig.16 fig.17 fig.18

Tip! SHOOTING MECHANISM:
- When your Quadcopter is within the Shooting Range of either other Quadcopters or Station, your TX will show sound effects
- When your Quadcopter is being locked-on by the Station, you can leave the Shooting Range within 1s or you will get attacked

Effects of being Attacked:



Hit I	Hit II	Hit III
When your Quadcopter gets attack once, it slightly swings FWD & BWD alternatively for 3 times. After the animation, it will be in defensive status (ignore any other attack) for 3s	When your Quadcopter gets attack again within 30s, it swings L & R alternatively for 3 times. After the animation, it will be in defensive status for 3s	When your Quadcopter gets attack again within 30s after got twice attacks, it rotates CW for 1s in fast speed. After the animation, it will be in defensive status for 10s.

Trouble Shooting

Symptom	Cause	Correction
Motor does not turn	- ON/OFF Switch is OFF. - Weak Battery.	- Set switch to ON. - Re-charge the battery pack.
The power indicator on transmitter blinking	- Weak power of transmitter.	- Change new batteries in transmitter.
The quadcopter does not react.	- Pair/Sync process does not established.	- Restart the link procedures. (referred to 1. Procedure for PAIR / SYNC the quadcopter and transmitter)
The station does not react or malfunction.	- Operation may not run properly - Weak power of station	- Switch off the station and turn on again
Loss of control.	- Another radio control device using the same frequency and channel is operated near your quadcopter. - Out of the control distance.	- Move to another place where without radio frequency interference from another device. - The control range for quadcopter is up to 20 meters.