F100GHOST

BRUSHLESS DRONE WITH ACTION CAMERA

USER MANUAL



FOR MORE INFORMATION

Visit us online at **force1rc.com** for product information, replacement parts and flight tutorials.

ATTENTION:
BEFORE FLYING YOUR DRONE, PLEASE WATCH THIS FLIGHT INSTRUCTION VIDEO.

https://youtu.be/tk3qzsUwoWs

FORCE1

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WELCOME!

Welcome to the Force1 Team, and thank you for your Force1 drone purchase. Please read this manual carefully before drone operation.

(1) This drone is not a toy! It's a pro-level drone suitable for experienced RC drone users aged 14 years and older. You accept all liability for operation.

(2) This drone does not require FAA registration or permitting, but FAA rules still apply. Please download the B4UFLY mobile app for the most up-to-date zoning info, and heed all local government ordinances.

(3) The flying field must be legally approved by your local government.

Any questions? We'd love to hear from you! Please include your order number when you contact us at support@force1rc.com for fast, friendly service.

***Please use only original Force1 parts and accessories.**
***Please keep the packaging and this user manual for future reference.**

SAFETY PRECAUTIONS

This drone is suitable for experienced RC drone operators aged 14 years and older. It contains small parts, and should be kept out of reach of small children.

Please follow these safety procedures:

(1) Flight Zone
This drone does not require FAA registration or permitting, but FAA rules still apply. Please download the B4UFLY mobile app for the most up-to-date zoning info, and heed all local government ordinances.

(2) Avoid Moisture
Humidity and water can damage your drone, which in turn may cause accidents.

(3) Fly Safely
Please operate your drone as your skill level allows. User fatigue, impairment and improper operation can cause accidents.

(4) Avoid Moving Parts & Hot Motors
Do not touch propellers, motors or other moving parts while your drone is on.

(5) Avoid Heat
Keep your drone away from heat and prolonged exposure to direct sunlight to avoid damage.

LI-PO BATTERY CARE

Avoid Overheating
Your batteries will sometimes be warm/hot to the touch after use. This is normal, but beware that battery components will fail if not allowed to cool down between uses. Also, do not leave batteries exposed to direct sunlight.

Store Properly
Store batteries at room temperature, between 5C°/40°F and 27°C/80°F.

Use Carefully
- Leave time between charging and using the battery
- To extend the lifetime of the battery, always keep about 20% of the power remaining in the drone battery (rather than completely draining it)
- If the battery is pushed beyond its limits, the battery could get hot and the performance will drop
- When using the battery for a long time, the battery will increase in temperature. If it is sealed, the air inside will inflate rapidly causing further heating

Charging
- DO NOT overcharge the battery; never charge batteries unattended, and stop charging as soon as your batteries indicate they are charged
- DO NOT attempt to charge batteries that appear damaged in any way (cracking, swelling, discoloration, etc.)
- If you feel a battery isn't charging properly, try using another charger if possible. If you find your battery or charger is defective, please visit force1rc.com for a replacement, or email us at support@force1rc.com
- To inspect a battery, remove it from the device and examine the battery, battery pins and contacts. If you notice damage, please visit force1rc.com for a replacement, or email us at support@force1rc.com
- Check your battery and connections after every crash
- Please use genuine factory parts and replacements from force1rc.com

7.4V 1800mAh Li-Po Batteries



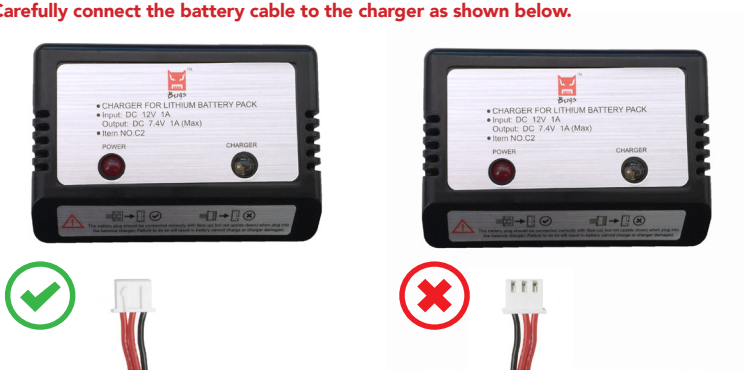
LI-PO BATTERY DISPOSAL & RECYCLING

Do not put lithium-polymer batteries in household trash.
Please contact your local waste management agency or LI-PO battery recycling center for more info.

DRONE BATTERY CHARGING

Follow the steps below to charge your battery (failure to follow instructions precisely may result in damage to your battery charger):

1. Connect the charging cord to the charger.
2. Plug in the charger.
3. **Carefully connect the battery cable to the charger as shown below.**



4. Charger indicator light will turn green when charging is complete.

NOTE

DO NOT plug the battery cable into the battery charger upside down. This will render the charger inoperable.

WARNING:
DO NOT LEAVE BATTERY CHARGING UNSUPERVISED.

BOX CONTENTS


DRONE


TRANSMITTER


7.4V 1800MAH LI-PO BATTERY (2)


PROPELLERS (4)


2 EXTRA COVERS

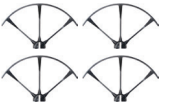

ACTION CAMERA


CAMERA MOUNT

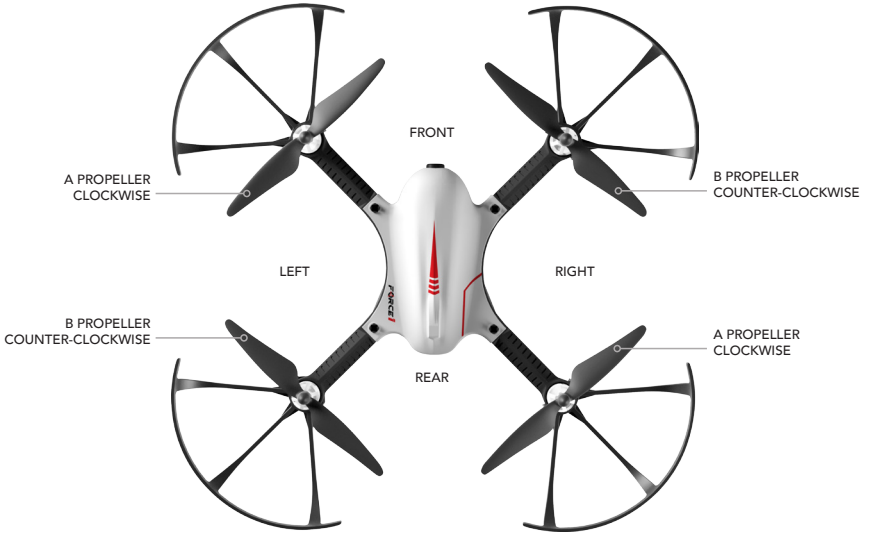

BALANCE CHARGER


HIGH LANDING GEARS

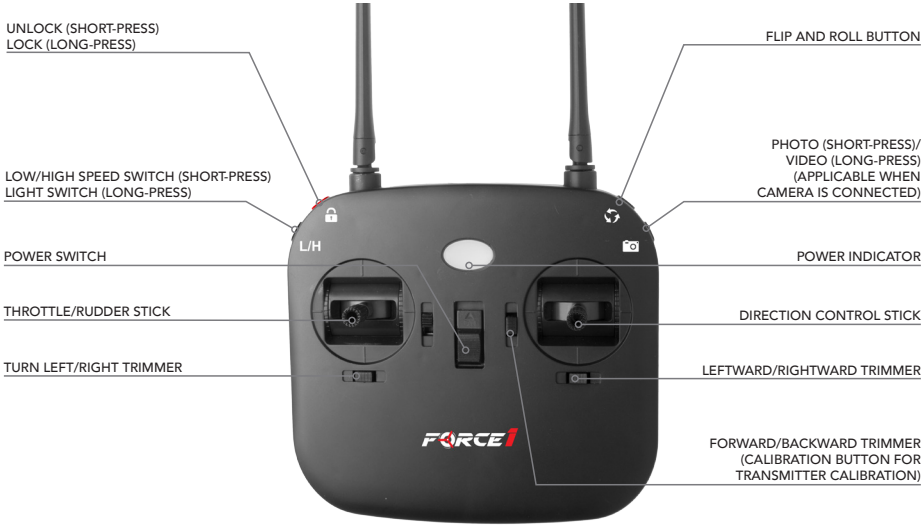

DRONE TOOLS


PROPELLER GUARDS (4)

DRONE OVERVIEW



TRANSMITTER OVERVIEW



TRANSMITTER BATTERY INSTALLATION

Open the battery cover and insert 4 AA batteries as shown below (not included).



CAUTION:

- The transmitter needs 4 AA batteries to work
- Insert batteries in correct polarity (+) and (-)
- Don't mix old and new batteries
- Don't mix alkaline, standard (carbon-zinc) and rechargeable (nickel-cadmium) batteries
- Remove rechargeable batteries before charging
- Only charge batteries under adult supervision
- Remove spent batteries from the transmitter
- Regularly inspect the charging cable, cord, plug, enclose and other parts; if you notice damage, please visit Force1rc.com for a replacement, or email us at support@force1rc.com. Please include your order number when you contact us for fast, friendly service.

DRONE ASSEMBLY

PROPELLERS INSTALLATION/REMOVAL

INSTALLATION

Install propeller A and B on the corresponding motor shaft and fix them tightly by rotating as per the "lock" direction shown on the propellers. Propellers and drone arms are labeled A or B (Fig. 1).

REMOVAL

Hold the brushless motor with the rotor blade changing tool; rotate and remove the propellers as per the "unlock" direction shown on the propellers (Fig. 2).

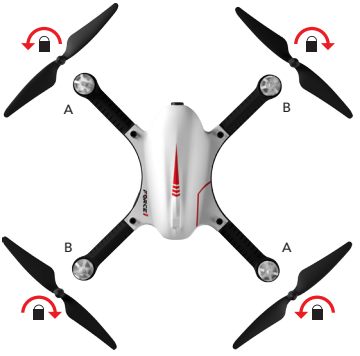


FIGURE 1

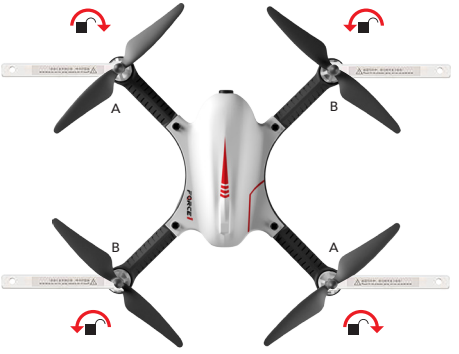


FIGURE 2

NOTE

- Be sure to install the correct propellers matching A and B
- Be careful with the propellers, as they can be sharp
- Purchase extra propellers at Force1rc.com

PROPELLER GUARD INSTALLATION

Unscrew the two screws from the bottom of the motors, install the guard, replace and tighten the screws.



REMOVE SCREWS



SCREW IN PROPELLER GUARD

HIGH LANDING GEAR INSTALLATION

Insert the high-landing gear plug into the socket located at the bottom of the drone, insert and tighten the large headed screws (Fig. 3). Repeat for all high landing gears.



FIGURE 3

BATTERY INSTALLATION

1. Slide the battery into the battery compartment (Fig. 4).
2. Plug the yellow battery wire into the power socket at the rear of the drone (Fig. 5).

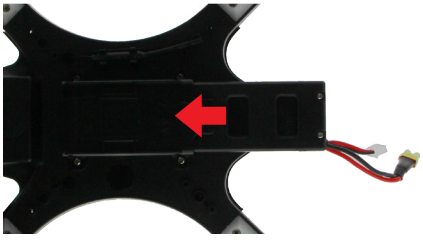


FIGURE 4



FIGURE 5

NOTE

Be sure you're connecting with the correct positive (+) and negative (-) polarity, indicated on the back of the drone, as well as on the sides of the battery wire

QUICK START GUIDE

1. Insert the battery into the drone to power it on (Fig. 6).



FIGURE 6

2. Press the red button on top left of the transmitter while turning on the power (Fig. 7). The green light on the transmitter will start flashing. You will hear a long beep and the green light on the transmitter will stop blinking when the drone and transmitter are paired.



FIGURE 7

3. Unlock the drone by pushing the left stick to the bottom position while pressing the top left red button (Fig. 8). The propellers will start spinning.

4. The drone is ready to fly. See the Preflight Checklist and Basic Flight Controls before operating.



FIGURE 8

NOTE:

Follow the calibration steps on page 11 if your drone doesn't start or isn't performing properly.

PREFLIGHT CHECKLIST

1. Fly in an open area and abide by all local and federal guidelines. Check the FAA's B4UFLY mobile app for up-to-date drone flight info.
2. Make sure your drone and transmitter batteries are fully charged.
3. Put the left stick of the transmitter in the middle position.
4. Follow the Calibration instructions closely. Always turn ON your transmitter first before flying, and turn OFF the drone first when you're finished.
5. Make sure the connection is solid between your battery and motor; vibration may cause loosening.
6. Make sure the propellers are installed correctly and the motors are working normally after unlocking.

CALIBRATION

The drone and transmitter are calibrated when shipped; however, calibration is recommended before every use, after crashing or if the drone isn't operating properly.

PAIR TRANSMITTER WITH THE DRONE

1. Insert the drone battery to power on the drone (see "Battery Installation" on page 9).
2. Press the red button on top left of the transmitter while turning on the power (Fig. 9). The transmitter will emit one beep, and the green light will start flashing. This indicates that the transmitter is in connection mode. The transmitter will send out a long beep sound and the indicator light will turn solid green when the drone is paired.



FIGURE 9

TRANSMITTER CALIBRATION

1. Turn on the drone (Fig. 6), then the transmitter (Fig. 9).
2. Immediately push down the Calibration button and hold for 3 seconds (Fig. 10).
3. Transmitter will beep 3 times, and drone indicator light will start flashing slower.
4. Rotate control sticks in any direction for 2 full rotations (Fig. 11).
5. Push the Calibration button and hold again for 3 seconds (Fig. 12).
6. Transmitter will beep 3 times, and drone indicator light will start flashing indicating calibration completion.

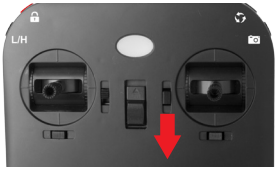


FIGURE 10

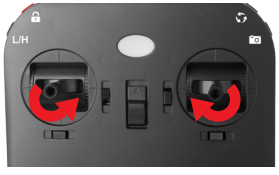


FIGURE 11

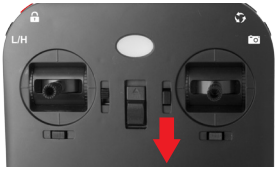


FIGURE 12

NOTE

- Be sure to press the Calibration button while the transmitter is in connection mode (while the transmitter indicator light is blinking)
- Turn off the transmitter and start again if the indicator light turns solid green before you're able to calibrate it

CALIBRATION CONTINUED...

DRONE CALIBRATION

Push both control sticks down and to the right (Fig. 13) – drone lights will flash when calibration is successful.



FIGURE 13

LOCKING AND UNLOCKING THE DRONE

Your drone may be locked or unlocked when you open it. Lock/Unlock is a safety feature that prevents unintentional motor starts.

TO UNLOCK

Your drone is locked when the front lights are on and the back lights are off. Pull the left stick (throttle) to the bottom position, while pressing the red button (Fig. 14). Listen for a long beep, and check that the drone's back lights also come on. The drone is unlocked when the propellers start to rotate.

TO LOCK

Pull the left stick down to the bottom position while pressing and **holding** the red button (Fig. 14). The transmitter will beep, the propellers stop rotating and the rear lights go off.



FIGURE 14

NOTE

The left stick (throttle) must be pulled to the bottom position when pressing the red lock button. Otherwise, the drone won't lock or unlock.

BASIC FLIGHT CONTROLS

HOVER UP AND DOWN

Push the **THROTTLE/RUDDER STICK** up to fly the drone up, and pull the **THROTTLE/RUDDER STICK** down to fly the drone down.

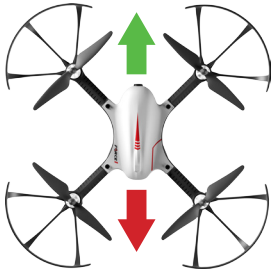




FLY FORWARD OR BACKWARD

Push the **DIRECTION CONTROL STICK** up to fly the drone forward, and pull the **DIRECTION CONTROL STICK** down to fly the drone backward.

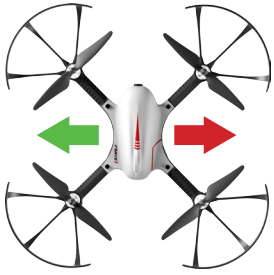




FLY LEFT OR RIGHT

Move the **DIRECTION CONTROL STICK** to the left to fly the drone to the left, and move the **DIRECTION CONTROL STICK** to the right to fly the drone to the right.





ROTATE LEFT OR RIGHT

Move the **THROTTLE/RUDDER STICK** to the left to rotate the drone to the left, and move the **THROTTLE/RUDDER STICK** to the right to rotate the drone to the right.





FLIPS AND ROLLS

FLIP AND ROLL BUTTON

Press and hold the **FLIP AND ROLL BUTTON**, then use the **DIRECTION CONTROL STICK**, to choose the direction that you want your drone to roll. Pressing forward will roll the drone forward, backward to roll back, left or right to roll left or right, respectively.



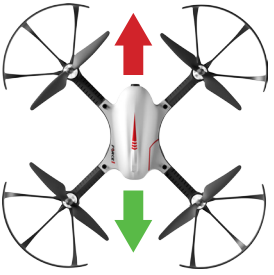


TRIM ADJUSTMENTS

FORWARD/BACKWARD TRIM

Adjust the **FORWARD/BACKWARD TRIMMER** backwards if the drone drifts forward when taking off, and adjust the **FORWARD/ BACKWARD TRIMMER** forwards if drone drifts backwards.





LEFT/RIGHT TRIM

Adjust the **LEFT/RIGHT FLYING TRIMMER** to the right if the drone drifts to the left when taking off, and adjust the **LEFT/RIGHT FLYING TRIMMER** to the left if drone drifts to the right.





LEFT OR RIGHT ROTATION TRIM

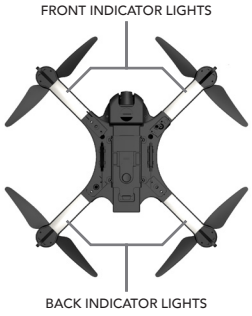
Adjust the **LEFT/RIGHT RUDDER TRIMMER** to the right if the drone rotates to the left when taking off, and adjust the **LEFT/RIGHT RUDDER TRIMMER** to the left if drone rotates to the right.





DRONE INDICATOR LIGHT DESCRIPTION

STATUS	DESCRIPTION
Drone lights flashing quickly	Drone gyro is in signal-detection mode
Front lights flash twice every 2 seconds	Drone not receiving transmitter signal
Front lights flash once every 2 seconds	Transmitter signal getting lost
Front lights flash slowly or front/back lights flash	Low drone battery; transmitter will beep
Front lights on, back lights off	Drone is locked
Front and back lights on	Drone is unlocked



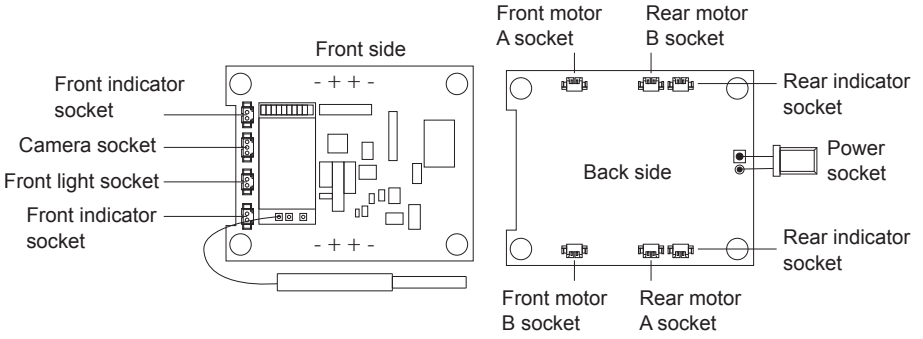
TRANSMITTER POWER INDICATOR LIGHT DESCRIPTION



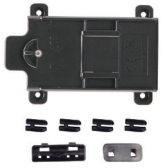
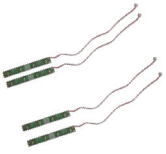
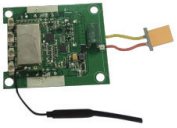
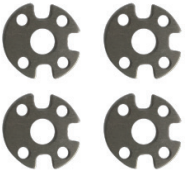
STATUS	POWER INDICATOR	DESCRIPTION
Quick, continuous beeping	On	1. Weak signal – drone is too far away. 2. Drone is powered off after successful signal connection.
Slow, continuous beeping	On	Low Voltage
Long beeping sound	On	Successful transmitter connection
Continuous “beep beep”	Flashing Slowly	Low drone battery
Occasional beep	On	Very weak signal

RECEIVER PCB CONNECTING DIAGRAM

Make sure your Receiver PCB is properly connected to ensure your drone operates normally. Check the installation direction and connections based on the diagram below if needed.



BASIC PARTS

			
Upper Covers 0001	Main Frame 0002	Propeller Guards 0003	Bottom Landing Gear 0004
			
Propellers A/B 0005	High Landing Gear 0006	LED Covers 0007	Battery Compartment 0008
			
ESC 0009	LED Strips 0010	Receiver PCB 0011	Clockwise Motor 0012
			
Counter-Clockwise Motor 0013	Heat Sink 0014	Propeller Changing Tool 0015	7.4V 1800 mAh Battery 0016
			
Camera Mount 0017	Balance Charger 0018	Action Camera 0019	Transmitter 0020

UPGRADES

			
360° Panoramic Camera	5.8G FPV Camera		

TROUBLESHOOTING

NO.	PROBLEM	SOLUTION
1	Lights are flashing quickly	The drone's gyro is in signal-detection mode; set the drone on any flat surface to stabilize before pairing.
2	Drone leans to one side after takeoff	1. Adjust all trimmer buttons to the middle value. 2. Set the drone on a flat surface and repeat calibration instructions.
3	Drone shakes fiercely	The rotor blade is out of shape; replace the propellers.
4	Drone can't be unlocked; front lights flash slowly	Charge the drone battery.
5	Drone can't be locked	Pull the left stick (throttle) down, then press and hold the red button.

FCC INFORMATION

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 residential 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. If this device causes radio or TV interference, which can be determined by turning the device off and on, try to correct the interference using the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on the circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help

FCC WARNING

The equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. Modifications not authorized by the manufacturer may void user's authority to operate this device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. The device does not cause harmful interference, and
2. The device accepts interference, including interference that may cause undesired operation.

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