GALILEO STEALTH™
DRONE WITH CAMERA

INSTRUCTION MANUAL

PROTOCOL®

THANK YOU.

Thank you for your purchase of Protocol's **Galileo Stealth With Camera.** You are about to experience the best of what remote control flight has to offer. We strongly recommend that you take the time to read this manual thoroughly. It contains many tips and instructions on how to get the most out of this aircraft and maintain it for a long life.

As with any aircraft, this is a precision flying machine. Treat it well and enjoy all the fun it has to offer, flight after flight.

HAVE FUN, BUT SAFETY FIRST!

PRECAUTIONARY SAFETY WARNINGS:

- Read and follow instructions on how to synchronize and calibrate electronics before each flight.
- To prevent damage to people or property, always avoid contact with other objects while in flight.
- Inspect aircraft prior to each flight and do not fly if damaged.
- Never expose product or any of its electronic parts to moisture, water or heat sources.
- Charge device in a cool, dry place and under adult supervision.
- Never leave the device unattended while charging.
- To prevent overheating, allow battery a cool-down period before recharging.
- To prolong engine life, allow a cool-down period between flights.
- Use only the charger and/or charging cable that is supplied with this item.
- Do not strike, cut or pierce the internal battery or subject it to hard impacts.
- Do not mix old and new batteries or mix different types of batteries.
- Never attempt to modify function of vehicle or controller or attempt repairs using parts other than those supplied by Protocol. Spare parts are available at www.protocolny.com

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CAUTION: DO NOT FLY INDOORS

THIS DEVICE USES COMPONENTS THAT OPERATE AT HIGH SPEEDS. AS WITH ANY SUCH DEVICE, USE CAUTION TO OPERATE SAFELY.

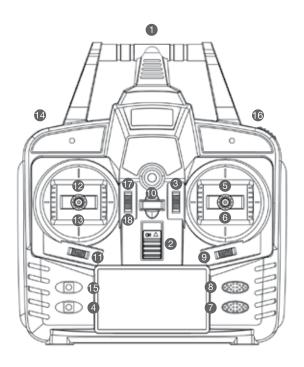**FAILURE TO FOLLOW ANY OF THESE GUIDELINES MAY RESULT IN BODILY INJURY OR DAMAGE TO PERSONAL OR PUBLIC PROPERTY.**

PROTOCOL®

DRONE
1. Canopy
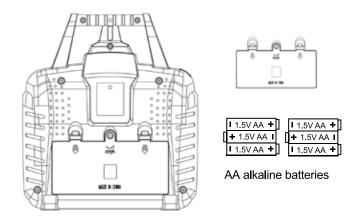2. Blade Guard
3. Blades
4. Battery Compartment
5. Camera
6. Landing Gear

REMOTE
1. 2.4G Antenna
2. Power Switch
3. Trim Forward/Backward
4. Flip Mode
5. Forward/Backward
6. Bank Left/Right
7. Video
8. Photo
9. Trim Bank Left/Right
10. Indicator Light
11. Trim Turn Left/Right
12. Throttle
13. Turn Left/Right
14. Speed Mode Selector
15. Take Off/Landing
16. Camera Angle (Gimbal)
17. LED Lights (push up)
18. Altitude Sensor Calibration (push down)

REMOTE BATTERY INSTALLATION

1.5V AA
1.5V AA
1.5V AA
1.5V AA
1.5V AA
1.5V AA

AA alkaline batteries

Unscrew and remove battery cover from controller. Insert 6 x 'AA' batteries according to indicated polarities. Replace and screw back in battery cover.
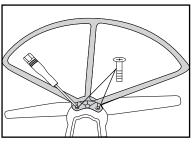
1. Install batteries carefully.
2. Do not mix old and new batteries.
3. Do not mix different types of batteries.

INSTALLING THE BLADE GUARDS, LANDING GEAR, & REPLACEMENT BLADES

Install the included blade guards to every corner and tighten the screws. Make sure the blade guards are secure and snug. (Fig. 1)

NOTE: Loose blade guards may interfere with propeller movement and cause a crash. If the drone crashes, double check to make sure the blade guard is not loose. If it is, re-tighten before flying.

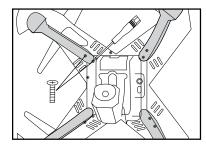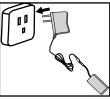Install the included landing gear and tighten the screws. (Fig. 2)

Fig. 1

Fig. 2

If you need to replace a blade, follow the below steps:

1. Unscrew and pull the domed blade cap to remove.
2. Using a screwdriver, unscrew the small screw from the lockstitch (white piece). Do not lose the screw.
3. Lift up the lockstitch and then remove the blade from the axis.
4. Place the included washer into the new blade (see pic).
5. Place the new blade with washer onto the axis.
6. Slide the lockstitch onto the axis and screw back in making sure the hole in the lockstitch aligns with the hole in the axis.
7. Screw and push the domed blade cap back onto the axis.

1. Make sure the drone is turned off.
2. Open the battery cover and remove the battery or make sure the charging jack is accessible.
3. Connect the AC charging cord to the battery charging jack.
4. Plug the charger into a power outlet. The red light will turn while charging and will turn to green once fully charged.
5. If the battery was removed, plug the battery back into the drone and close the battery cover.

Charging time: 200 minutes --- Flying time: approximately 7 minutes
*Battery: Li-Po, 7.4V, 2000mAh. If you purchased extra batteries, allow the engines to cool between flights in order to prolong engine life.
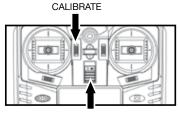
CAUTION WHEN CHARGING

1. When charging, place product on a dry, well-ventilated surface and keep away from heat sources.
2. Always use adult supervision while charging.
3. In order to increase battery longevity, avoid repeat charging and excessive discharging.
4. As battery temperature is high immediately after flight, charge after cooling down for higher efficiency.
5. Do not strike or subject battery to hard impacts or sharp surfaces.
6. Do not use any other charger than that which is supplied with this item.
7. Do not use or leave battery near a heat source such as fire or space heater; exposure to heat may result in reduced performance or in some cases dangerous conditions.
8. If battery is left in charging state for an extended period of time after being fully charged, the battery may automatically discharge.
9. Never leave the battery unattended during charging.
10. Do not disassemble battery.
11. Do not submerge battery in water.

Before flying, the drone and the transmitter must be turned on in sequence and synchronized. Once synchronized, you must press the calibration button so the Altitude Sensor can set properly.

1. Turn on the drone and place it on an even surface. The lights will flash.
2. Turn on the remote control. You will hear a beep indicating power is on. It will automatically search for the transmitter signal and beep again when the transmitter is synchronized.
3. Next, you must calibrate the Altitude Sensor. Press the calibration button down once. Lights will flash quickly and then slowly when finished. Your drone is now synchronized, calibrated, and in stand-by mode awaiting Engine Idle command.

CALIBRATE

POWER ON

NOTE

1. While the drone is in the process of synchronizing or calibrating, the lights will flash quickly. When the process is completed, the lights will flash slowly. This is your indication that the process is completed.
2. If after 30 seconds, it has not recognized the drone, turn off the controller and repeat Power-On procedure.
3. If the Galileo Stealth is unsteady in flight, it may not have been able to calibrate properly. Power down both drone and remote and restart pre-flight procedure, including re-calibration of the altitude sensor.
4. For the Altitude Sensor to calibrate properly, the drone must be synchronized already, but the engines not spinning yet. You cannot calibrate while the propellers are turning. You have to calibrate before you start the engines.

BEFORE STARTING THE ENGINES, CALIBRATE THE ALTITUDE SENSOR. DO THIS BEFORE EACH FLIGHT – EVERY TIME!

TO CALIBRATE ALTITUDE SENSOR

Press the calibration button down once. (Fig.1)
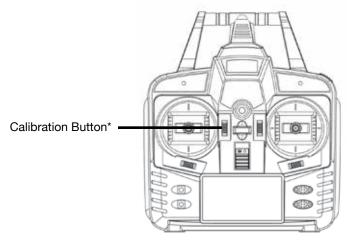
Calibration Button*

Fig. 1

* Press down once to calibrate. Lights will flash quickly during calibration and then flash slowly when completed. Don't worry if you press it again as it will simply recalibrate again.

NOTE:

The Altitude Sensor assists pilots by stabilizing altitude fluctuations. This stabilizing technology reduces, but does not eliminate all fluctuations. The drone may drift upwards or downwards somewhat during flight. This is normal. Manual adjustments to altitude are part of the normal piloting process.

STARTING THE ENGINE; ENGINE IDLE

1. After synchronizing and calibrating the drone, move the throttle and direction sticks to the lower left and lower right corners (blue lines) and release to go into Idle mode. The blades will rotate but the drone will not lift.

*The engines will shut off automatically if the user does not press the take off button within 10 seconds.

TAKE–OFF:

1. Press and hold the take off button until it beeps. Then release the take-off button and the drone will lift off and hover a few feet off the ground. Gently advance the throttle to a desired height and release. The drone will hover at that height.*
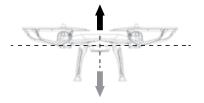
OR

2. From Idle mode, gently advance the throttle up to a desired height and release. The drone will hover at that height.*
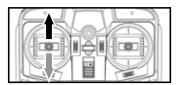
LANDING:

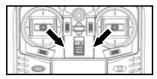1. Press the landing button to lower the drone to the ground.

OR

2. Push down on the throttle until the drone is on the ground.

NOTE:

- The engine will shut off if you choose to hold the throttle down for 3 seconds.

- **Emergency Shut Off: When in flight, pull the throttle and direction stick to the center at the same time (red lines) and the drone will shut off.**
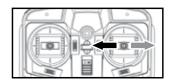
* The drone may drift a bit, especially in the first 30 seconds until the altitude sensor gets a good fix on the position. Some drift is normal.
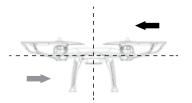
OPERATION: FLYING THE DRONE

FIRST TIME FLYERS: TAKE YOUR TIME! GO SLOW!

Practice hovering until you are comfortable with flight before attempting any other maneuvers. Make small movements letting the stick return to center. If you start to lose control, don't panic. Just press land.
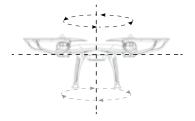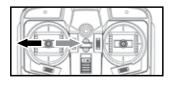
Pull the direction lever to the left or right,
the drone banks to the left or right.

Push the direction lever up or down,
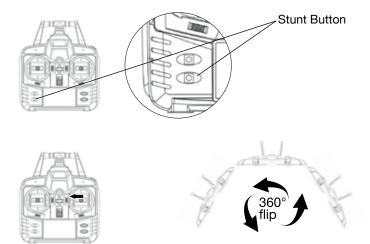the drone flies forward or backward.

Pull the throttle left or right,
the drone turns to the left or right.

TIPS ON 360° FLIPS

Once you become skilled with the basics of drone flight, you can try some advanced maneuvers. At a height of at least 20 feet, press the Flip Mode button and move the direction lever in any desired direction to execute the flip. The remote will beep quickly when you are in stunt mode and will stop beeping once you have executed the flip. We recommend removing the camera to protect it before performing stunt maneuvers. Galileo Stealth is a large drone, so leave a lot of space for the drone to flip and recover.

Stunt Button

360°
flip

LEFT FLIP

Push the direction stick to the left and the drone will perform a 360° flip in that direction.
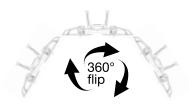
360°
flip

RIGHT FLIP

Push the direction stick to the right and the drone will perform a 360° flip in that direction.

TIPS ON 360° FLIPS

FORWARD FLIP

Push the direction stick forward and the drone will perform a 360° flip in that direction.

BACKWARD FLIP

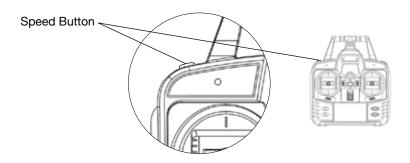Push the direction stick backward and the drone will perform a 360° flip in that direction.

*IMPORTANT:

Make sure you have mastered drone flight before executing flips. Make sure you have plenty of upper and lower clearance and that no people, animals, or objects are in the way.

SPEED MODES

The Galileo Stealth features multiple speed modes. Choose the speed based on flight experience and level of comfort. At higher speeds, the drone will pitch more than at lower speeds. Galileo Stealth is quite fast at its highest speed and requires more piloting skills to fly competently. For safety, take time to develop advanced skills by practicing at lower speeds first.

Press the Speed +/- button to change the speed mode. The remote control indicator will beep once at slowest speed mode and multiple times as speed mode is increased.*

Speed Button

*Some models have up to four speeds. 4 beeps indicates maximum speed. Press again to cycle back to slow speed (1 beep).

TRIM ADJUSTMENT

SIDEWAYS TRIM

When the drone drifts to the left or right side unintentionally, you can correct it by pressing the trim button in the opposite direction until it evens out.
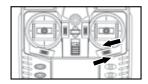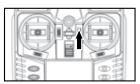

FORWARD/BACKWARD TRIM

When the drone drifts forward/backward unintentionally, you can correct it by pressing the trim button in the opposite direction until it evens out.

LEFT/RIGHT TRIM

When the drone spins left/right unintentionally, you can correct it by pressing the trim button in the opposite direction until it evens out.

* NOTE: Trim adjustments are designed to counter drifts not caused by wind.

TROUBLESHOOTING

*Allow 15 minutes to pass between flights as this will give the motors a chance to cool down. Failure to do so could wear out and shorten the life of the motors.

SYMPTOM	POSSIBLE CAUSE	POTENTIAL SOLUTION
Galileo Stealth does not respond	1. Communication between controller and aircraft was not synchronized during set up 2. Battery power depleted on aircraft, controller or both.	1. To synchronize, turn on aircraft first, place it on level ground, and then turn on controller. 2. Charge aircraft battery and/or replace batteries in controller.
Response to control inputs intermittent or erratic	1. Controller battery power nearly depleted.	1. Replace batteries in controller.
Galileo Stealth will not hover or strafe correctly	1. The aircraft was not on level ground during synchronization. 2. Trim settings are incorrect.	1. Re-synchronize aircraft and controller. 2. Recalibrate the Altitude Sensor. 3. Reset the trim buttons on the controller and re-trim flight controls.

Galileo Stealth is designed to fly only outdoors.

HOW TO PREVENT FLY AWAYS

To prevent "fly-away" situations (where drones seem to fly away out of control) it is important to first test and practice within close range before letting the drone fly too far away.

Each drone is designed to land if the radio signal is lost. (But, this should not be considered a landing procedure or normal flight practice.) It is important to know and test the range of your drone before flying. We recommend turning on and syncing the drone and walking away while testing the engines. Keep walking and testing until it is obvious when you reach the point where the signal is not controlling the drone. This will be the control limit for the conditions in which you are flying. Distance does vary somewhat based on environmental and weather conditions, so testing the limit is advised. Fly in a range that is good for easy visual operation of the drone.
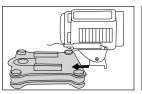
IF YOU CAN'T SEE YOUR DRONE, THEN YOU CAN'T CONTROL YOUR DRONE.

Fly-aways are not covered by warranty as they are overwhelmingly caused by pilot error.

INSTALLING THE CAMERA

1. Install the camera into the stabilizing frame as shown below with camera lens facing forward.
2. Slide the frame with camera onto the tracks on the drone.
3. Plug both cords on the camera into the drone.

CONTROLLING THE GIMBAL:

1. The camera direction can move up and down on a gimbal. Slide your finger on the Camera Angle wheel to control the direction. The remote will beep when you are no longer able to go in that direction.
2. When the remote beeps, back up the camera slightly to keep it comfortably within range. This will help keep the gimbal running smoothly.

SHOOTING PHOTOS AND VIDEO

1. Turn on the drone, synchronize, and calibrate.
2. Photo: Push the Photo button and the camera will take a photo. The remote will beep once as it's taking the picture.
3. Video: Push the Video and the camera will begin to record. The remote will beep once to signal that it has started recording. Push the Video button again, the camera will stop recording, and the remote will beep once.
4. Press the memory card to unlock and remove. Plug it into the USB card reader. Then plug the card reader into the USB port of your computer. If you are using Windows, the USB will come up on the removable drive. If you are using OS, then the USB will come up as "Untitled".
5. Open the drive and then open the Video or Photo folders to access the MP4 or JPEG files.
6. MP4 movies can be played in several different formats including Quicktime, Windows Media Player, and RealPlayer.

WARNING: Never remove the card from the video camera while the drone is turned on.

*The memory card comes pre-inserted into the camera.

Phone Mount
1. Slide the phone mount onto the remote control's antenna.
2. Pull the clamp and insert the smartphone.

Install the App
1. The App is available in both Apple and Android APP stores. Search "Protocol Galileo Stealth" and download the App to your smartphone.

Shooting Video/Photo
1. Turn on the Galileo Stealth and the remote control.
2. Once it is turned on, the Galileo Stealth will blast a Wi-Fi signal, "Galileo Stealth". Make sure your smartphone is connected to that signal.
3. Open the app and press " ⇨ " (Fig. 1).
4. The screen will livestream the camera view.
5. To film video, tap the video icon once. To stop filming, tap the icon again. (Fig. 2)
6. To snap pictures, tap the photo icon once.

Shooting in VR
1. Insert the phone in a VR viewer (not included).
2. Press the VR icon (Fig. 3). The phone will shoot and livestream in VR mode.
3. Press the VR icon again to leave VR mode.

Viewing and Saving Recorded Video/Photo

To see recorded video and images, press the picture icon. There are three subfolders, one for video, one for photos, and one for SD card (Fig. 4). The SD Card folder can only be viewed while the drone is still connected to the app.

FIG. 1

FIG. 2

FIG. 3

FIG. 4

*Please check our website www.ProtocolNY.com for updates and instructions to our Apps.

Apple
1. Photos and low res video will automatically save to the phone's photo album.
2. To load hi res video, access the SD card folder and hit the download icon to save to the phone. Once you do this, you can also view hi-res video in the app's video folder.
3. All videos can be viewed in VR mode through the App. Press the VR button in the lower left corner when viewing the video. You cannot view VR video through the phone's photo album.

Android
1. Photos will automatically save to the phone's photo album.
2. To load video, access the SD card folder and hit the download icon to save to the phone.
3. All videos can be viewed in VR mode through the App. Press the VR button in the lower right corner when viewing the video. You cannot view VR video through the phone's photo album.
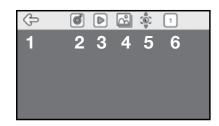
Deleting Content from the App
Apple:
Press the "Delete" button. Then select the images or video you want to delete.

Android:
Open the image or video, and then select the trashcan icon to delete.

Viewing Through Memory Card
1. Remove the memory card by pushing it in until it springs out of the camera.
2. Insert the memory card into the card reader.
3. Place the card reader into the USB port of your computer. The USB will come up on the removable drive.
4. Open the drive and then open the Video or Photo folders to access the MP4 or JPEG files.
5. MP4 movies can be viewed in several different formats including Quicktime, Windows Media Player, and RealPlayer.

1   2 3 4 5 6

Icon Key
1. Return to previous menu
2. Take photo
3. Record video
4. View photos and video
5. Flip screen
6. VR Mode (active or inactive)

REPLACEMENT PARTS

Thank you for your purchase of Protocol's **Galileo Stealth with Camera.** We know that accidents can sometimes happen and that is why we offer spare parts kits on our website: **www.ProtocolNY.com.**

LIMITED WARRANTY

At Protocol, we're dedicated to bringing you innovative and well-designed products that make living fun and easy. We stand behind all of our products and warrant this to be free from defects in workmanship and materials for 30 days from the date of purchase. The warranty does not cover transportation damage, misuse, accident, or similar events. Specific legal rights pertaining to this warranty may vary by state.

For service claims or questions please consult our website **www.ProtocolNY.com.**

FAA DRONE REGISTRATION

This drone must be registered with the FAA.

Visit **www.faa.gov/uas/registration/** to register your drone.