

ARES

GAMMA 370 V2

Instruction Manual



Wingspan	38.60 in. (980mm)
Wing Chord	7.50 in. (190.5mm)
Wing Area	275 sq. in.
Length	30.6 in (775mm)
Flying Weight	16 oz. (455 grams)
Battery	2S 1000mAh w/HCT
Motor	370 Brushed/Geared
ESC	20A Brushed
Prop	9 X 7 Slowflyer

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INTRODUCTION

The Ares [air-eez] Gamma 370 V2 offers a combination of stability and durability perfect for first-time pilots while also delivering smooth and capable flight performance experienced sport flyers will enjoy. The advanced EPO foam airframe design is lightweight, durable, easy to repair, and also arrives factory assembled and nearly ready-to-fly right out of the box so you can be flying in almost no time at all.

Unlike other similar class models that require significant modifications to upgrade to brushless power systems and aileron control, the Gamma 370 V2 is designed so it's ready for both. The very affordable Brushless Power System Upgrade Combo includes an a 20-Amp brushless ESC, a powerful 370 brushless motor and motor mount that install easily in just minutes. Plus, for full 4-channel control and aerobatic capability, the optional aileron-equipped wing set can be mounted in place of the standard wing without any modification.

The Gamma 370 V2 can be upgraded to fly off water with the addition of the optional float kit. The float kit comes complete with everything needed to convert your Gamma 370 V2 for float flying. The Gamma 370 V2 can be flown off the water with either the brushed or brushless motors and with either wing choice. No modification is required to install the float kit as the rear float mount is already installed in the Gamma 370 V2 fuselage.

The Gamma 370 is available in RTF (Ready-To-Fly) and PTF (Pair-to-Fly) versions that include a factory installed 370-motor equipped power system, ESC and 9-gram sub micro servos. The PTF version is supplied complete with a Hitec Red receiver that is compatible with your favorite Hitec aircraft transmitter. The RTF version includes everything needed to fly right out of the box. From the AA batteries for the 6-channel IKONNIK KA-6 2.4GHz transmitter and a 6-channel Hitec Red receiver to the 1000mAh 2S 7.4V LiPo battery, DC balancing charger and AC adapter, there is nothing extra to buy.

So whether you're a first-time pilot looking to get started, or an experienced pilot looking for a fantastic sport flyer, there's no better choice and no better value than the Gamma 370 V2!

SAFETY PRECAUTIONS

Failure to use this product in the intended manner as described in the following instruction can result in damage and/or personal injury. A Radio Controlled (RC) airplane/helicopter/quadcopter is not a toy! If misused it can cause serious bodily harm and damage to property.

Keep items that could become entangled away from the propeller, including loose clothing, tools, etc. Be especially sure to keep your hands, face and other parts of your body away from the propeller.

As the user of this product you are solely and wholly responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

This model is controlled by a radio signal that is subject to possible interference from a variety of sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance from objects and people in all directions around your model as this will help to avoid collisions and/or injury.

GENERAL PRECAUTIONS

- Never operate your model if the voltage of the batteries in the transmitter is too low.
- Always operate your model in an open area away from obstacles, people, vehicles, buildings, etc.
- Carefully follow the directions and warnings for this and any optional support equipment, (chargers, rechargeable batteries, etc.).
- Keep all chemicals, small parts and all electronic components out of the reach of children.
- Moisture causes damage to electronic components. Avoid water exposure to all electronic components, parts, etc. not specifically designed and protected for use in water.

FCC INFORMATION

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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

The associated regulatory agencies of the following countries recognize the noted certifications for this product as authorized for sale and use: USA, UK, AU

GAMMA 370 V2 RTF CONTENTS

Item	Description
Not Available Separately	Gamma 370 V2 RTF Airframe
KNNA1002.....	6-Channel Hitec Red Transmitter, 2.4GHz, Mode 2
Not Available Separately	AA Batteries (8pcs)
AZSB1631.....	1000mAh 2-Cell/2S 8.4V 20C LiPo Battery, T-Connector
AZSC205C	2-Cell/2S 8.4V LiPo, 0.8 DC Balancing Charger
AZSC1205PS	100-120V AC to 13V DC Adapter, 0.8A Power Supply



Gamma 370 V2 PTF CONTENTS

Item	Description
AZSA1601.....	Gamma 370 V2 PTF Airframe W/Hitec Red Receiver

REQUIRED TO COMPLETE PTF

Item	Description
Hitec 2.4GHz Transmitter	5 channel minimum

LiPo BATTERY WARNING

IMPORTANT NOTE: Lithium Polymer batteries are significantly more volatile than the alkaline, NiCd or NiMH batteries also used in RC applications. All instructions and warnings must be followed exactly to prevent property damage and/or personal injury as mishandling of LiPo batteries can result in fire. By handling, charging or using the included LiPo battery you assume all risks associated with LiPo batteries. If you do not agree with these conditions please return the complete product in new, unused condition to the place of purchase immediately.

- You **MUST** charge the LiPo battery in a safe area away from flammable materials.
- **NEVER** charge the LiPo battery unattended at any time. When charging the battery you should **ALWAYS** remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.
- After flying/discharging the battery you must allow it to cool to ambient/room temperature before recharging.
- To charge the LiPo battery you **MUST** use only the included 205C balance charger or suitable LiPo battery charger. Failure to do so may result in a fire causing property damage and/or personal injury. **DO NOT use a NiCd or NiMH charger.**
- If at any time during the charge or discharge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe, open area away from flammable materials to observe for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. A battery that has ballooned or swollen even a small amount must be removed from service completely.
- Store the battery at room temperature, approximately 68–77° Fahrenheit (F), and in a dry area for best results.
- When transporting or temporarily storing the battery, the temperature range should be from approximately 40–100°F. Do not store the battery or model in a hot garage, car or direct sunlight whenever possible. **If stored in a hot garage or car the battery can be damaged or even catch fire!**
- Do not over-discharge the LiPo battery. Discharging the LiPo battery too low can cause damage to the battery resulting in reduced power, flight duration or failure of the battery entirely.

- LiPo cells should not be discharged to below 3.0V each under load. In the case of the 2-Cell/2S 8.4V LiPo battery used to power the Gamma 370 V2, you will not want to allow the battery to fall below 6.0V during flight.
- The electronic speed control (ESC) has low voltage cutoff (LVC) protection. When the flight battery voltage drops below a set point the throttle gradually is reduced. At this point the airplane will need to be landed and the battery recharged.

LiPo BATTERY CHARGING



Plug power supply into 205C charger. Plug power supply into main AC power.



Plug 3-pin balance connector of flight battery into 205C charger.



Maintain correct polarity when plugging in 3-pin balance connector.



Both red and green LEDs will light during charge. Only red LED will remain lit when charge is complete.

Important Charging Notes

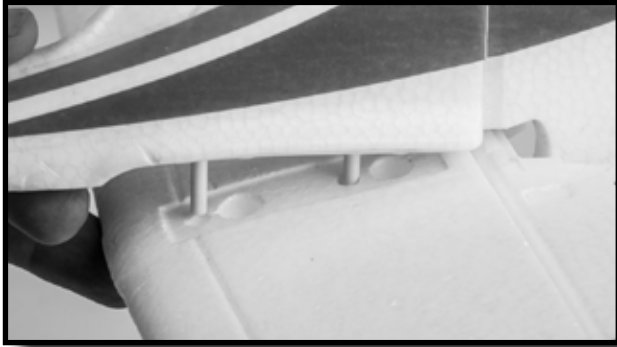
PLACE THE 205C CHARGER ON A FLAT, SMOOTH AND HEAT-RESISTANT SURFACE.

It's important that air is able to circulate through the charger during the charging process in order to keep it from over-heating. It's especially important that the vent openings on the bottom and sides of the charger are not blocked. DO NOT place the charger on carpeted or other similar surfaces that may block the vent openings. Also, DO NOT place the charger in direct sunlight before, during or after use.

It will take approximately 1 to 1-1/2 hours to fully charge a mostly discharged flight battery.

For faster charging see the Radiant Ascend AC-DC charger available at your local Hobby Town store.

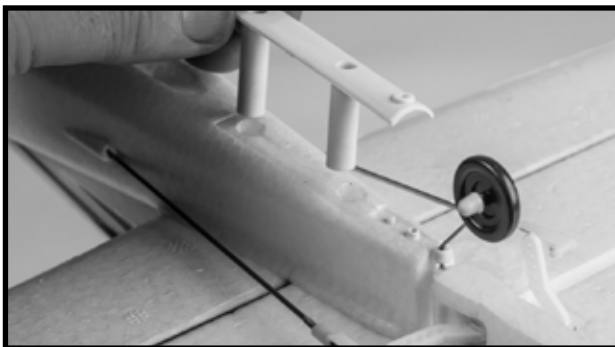
AIRPLANE ASSEMBLY



Assemble the vertical tail to the horizontal tail.



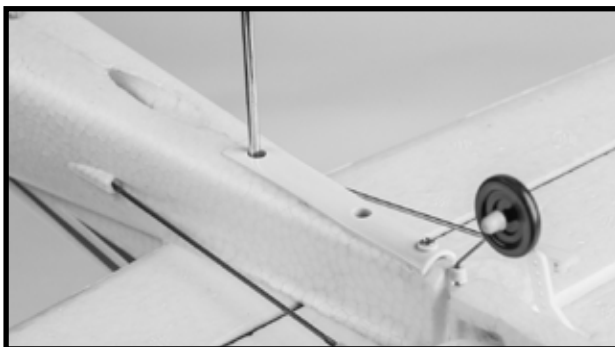
Place the tail assembly into position on the fuselage.



Insert the two 5/16" (8mm) long screws from the tail screw bag into the holes on fuselage bottom and tighten.



Install the tail wheel bracket with two small screws.



Connect the plastic clevis to the rudder control horn in the outermost hole and snap closed. Repeat for elevator clevis.



Slip plastic clevis keeper onto clevis. This is to prohibit the clevis from popping open during flight.



Photo shows clevis connected to the elevator control horn in the outermost hole. The clevis keeper is in correct position.



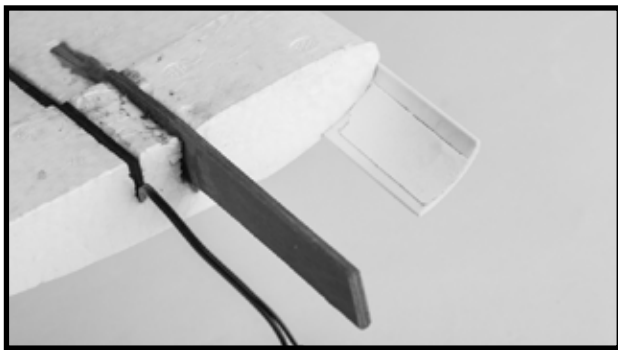
Photo shows clevis connected to the rudder control horn in the outermost hole. The clevis keeper is in correct position.



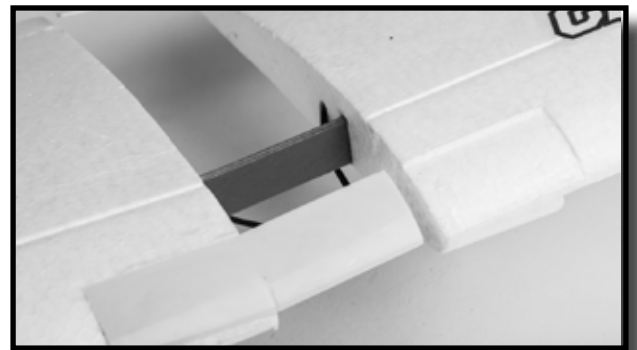
Locate the landing gear assembly and insert into slot at the rear of the battery box.



Using two washer head screws, secure the landing gear to the fuselage.



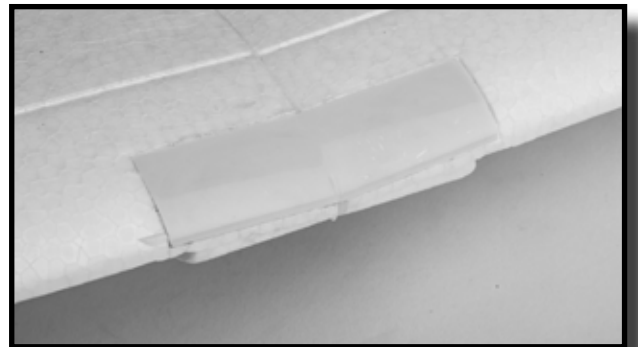
Locate the main wing halves.



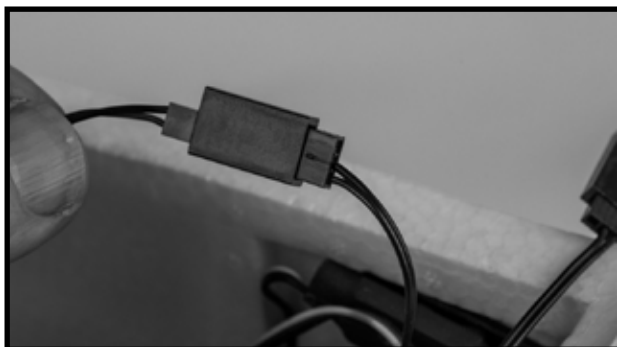
Slide the two halves partially together.



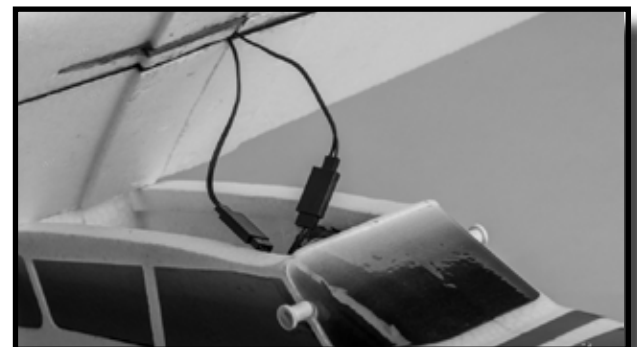
It is not necessary to glue the wing halves together. If you decide to permanently join the wings you can glue or use double stick



tape (not included). Slide the wing halves completely together.



Locate the LED wiring Y-connector and plug in the wing LEDs, making sure to maintain correct orientation of the plugs.



Tuck the wires into the fuselage while fitting the wing into position.



Install 4 of the rubber bands to secure the wing as shown in the photo above.



Then the spinner back plate, 3mm nut, prop, washer, 3mm nut, 3mm nylock nut, spinner nose piece.



The photo above shows the correct order of installation for the propeller. Install 3mm nut on shaft and thread it all the way down.



Completed installation should look like photo above.

INSTALLING FLIGHT BATTERY



The included 1000mAh 2-cell 8.4V LiPo battery is a perfect fit for the battery box located on the bottom of the fuselage. The flight battery installs with the base of the battery facing forward. Plug the balance connector wires into the LED Y-connector to light the LEDs. Plug the female HCT connector from the flight battery into the male HCT connector from the ESC. Once correctly plugged in, the wires can be tucked into the battery box and the battery hatch door can be re-installed and snapped into place. The servos are active at this point but the motor is not armed until the throttle stick is moved to full throttle and back to the off position. Do not arm the motor yet.

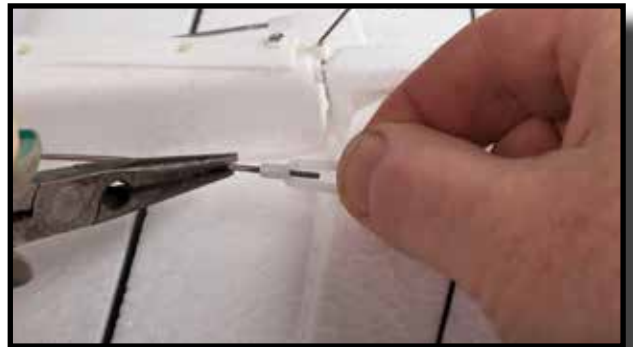


FLIGHT CONTROLS

Before your first flight it is important to center all your control surfaces to their neutral positions. Turn on the transmitter with the throttle stick in the lowest (OFF) position and plug in the flight battery. This will initialize the servos. Center the digital trims, a long beep indicates center. The control surfaces for the elevator and rudder should be in their neutral position and not deflected in any direction. If they are not in their neutral position you will need to adjust the length of the pushrod by screwing the clevis in or out. To open, gently pry the clevis arms apart using a flat blade screwdriver. Disengage the clevis from the control horn and screw in or out as appropriate so that when re-attached to the control horn the control surface is in its neutral position. When satisfied that they are correct, snap the clevises shut and slide the clevis keepers back into position to keep them secure.



Center all digital trims on the transmitter to their neutral positions and lower the throttle stick to off.



Adjust the clevis in or out by screwing until the control surface is at neutral when clevis is attached.

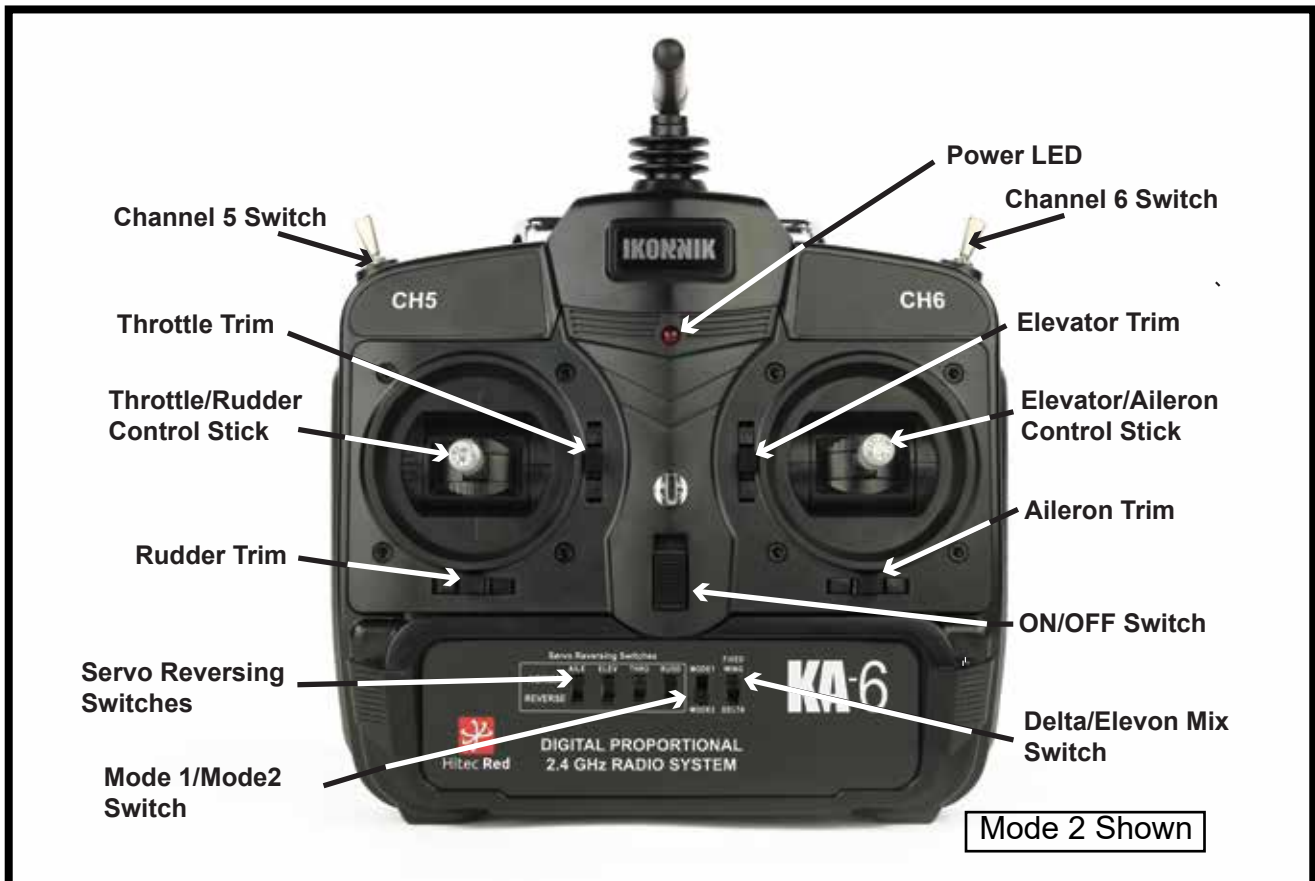


Check that the control surface movement is in the correct direction. When the elevator stick is down the elevator moves up. When the elevator stick is moved up, the elevator moves down.



On this 3 channel airplane the rudder is controlled by the right-hand stick. When the stick is moved right the rudder moves right. When the stick is moved left the rudder moves left. In a 3 channel airplane the rudder controls the roll of the aircraft. When you transition to 4 channel controls, the roll will be controlled by the ailerons and the yaw will be controlled by the rudder. In the 4 channel configuration the rudder function will move to the left stick (in Mode 2) and the ailerons will be on the right stick.

TRANSMITTER DETAILS



The Gamma 370 V2 RTF version includes a KA-6 6-Channel Airplane Transmitter equipped with 2.4GHz Hitec Red technology, trim levers, servo reversing switches and optional use “delta/ elevon” mixing (the PTF Pair-to-Fly) version requires a 5+ channel Hitec transmitter. The KA-6 transmitter makes it possible to upgrade your Gamma 370 V2 to brushless power and four channel operation. Upgrade parts are available at Ares-RC.com.

ESC (ELECTRONIC SPEED CONTROL)

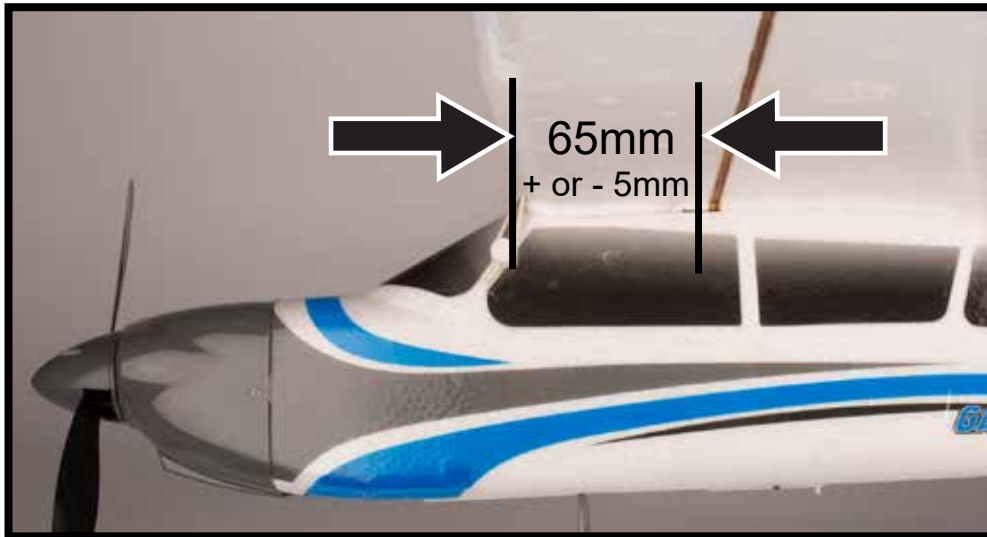
The factory installed 20A brushed motor ESC arms the servos when the flight battery is plugged in and the ESC receives a valid low throttle signal from the receiver. If the throttle is not in its lowest position the ESC will not arm. To arm the motor the throttle stick must be raised to full throttle and back to low throttle. This will activate the throttle, the next time that the throttle is raised the motor will start. Once the throttle is activated please make sure that you keep clear of the prop as a spinning prop can cause serious injury.

The ESC includes a Battery Eliminator Circuit (BEC) that provides electrical power to the receiver and servos. This power is from the flight batteries and no additional receiver batteries are required.

The ESC also has a Low Voltage Cutoff (LVC). When the voltage in the flight batteries reaches a level that is approaching 3V/cell the LVC will reduce the power to the motor gradually. If you feel that the airplane is beginning to lose power, land immediately and change or recharge your flight battery.

Spare flight batteries are available at Ares-RC.com

CENTER OF GRAVITY



The RTF Gamma 370 V2 CG is set just by installing the supplied 1000mAh battery. If you are using a different battery or other components check to see that you have maintained the correct CG. Measured from the leading edge of the wing the CG is 65mm +/- 5mm.

FIRST FLIGHT CHECKLIST

- Airplane assembled and mechanically trimmed
- Flight battery fully charged
- Control surfaces move in correct direction when control stick is moved
- Airplane is facing into the wind
- The flying site is free of people and obstructions and is of suitable size

Congratulations you are now ready for flight!

FLYING

We recommend flying your Gamma 370 V2 in a large enough space for relaxed flying. The area required should be about the size of a ball field and be free of obstructions. We suggest that initial flights be carried out when the wind conditions are light. Once you are familiar with the Gamma 370 V2 you will easily be able to fly in less favorable conditions.

We recommend that an experienced pilot stands with you for the first flights.

To take off, place the airplane on a smooth surface with the nose of the airplane into the wind and smoothly advance the throttle. Ease back on the elevator stick and the Gamma 370 V2 will smoothly climb out. Use the right stick (rudder control) to initiate a turn and continue to climb to a comfortable altitude. Once airborne you can reduce the throttle to 1/2 to 2/3 for a good cruising speed. The first steps are to gain some confidence in controlling the flight of the airplane. Do this by turning the airplane to keep it within easy visual range.

Landing can be intimidating for novice pilots. Land the plane with the nose of the airplane facing into the wind. With the nose into the wind start reducing the power to descend, increase or decrease the power to land the airplane in the location that you desire.

We hope that you enjoy learning to fly the Gamma 370 V2 and have many enjoyable flights.

GAMMA 370 V2 REPLACEMENT PARTS

Ares Gamma 370 V2 Item List

Item Number	Spare Part Description
AZSA1610T	20-Amp Brushed Motor ESC w/ T-connector: Gamma V2
AZSA1613	3-Channel Wing Set w/o decals: Gamma V2
AZSA1615	Fuselage w/o decal: Gamma V2, Gamma Pro V2
AZSA1616	Main Landing Gear: Gamma V2, Gamma Pro V2
AZSA1617	Landing Gear Mount/Battery Hatch Set: Gamma 370 V2, Pro V2
AZSA1618	Tail Wheel Set: Gamma V2, Pro V2
AZSA1621	Painted Cowl: Gamma V2, Gamma Pro V2
AZSA1623	Spinner: Gamma V2
AZSA1624	Decal Set: Gamma V2
AZS1631	1000mAh 2-Cell/2S 7.4V 20C LiPo Battery, T-connector: Gamma V2
KNNA1002	6-Channel Transmitter Only
KNNA1002M1	6-Channel Transmitter Only: Mode 1
KNNA1004	6-Channel Aircraft Receiver
AZS1207	9-Gram Sub-Micro Servo: Gamma 370, Pro, Gamma V2, Pro V2
AZS1207GS	9-Gram Sub-Micro Servo Gear Set: Gamma 370, Pro, Gamma V2, Pro V2
AZS1209	370 Motor w/Pinion Gear: Gamma 370, Gamma V2
AZS1211	370 Gearbox w/Shaft: Gamma 370, Gamma V2
AZS1212	370 Gearbox Propeller Shaft w/Gear: Gamma 370, Gamma V2
AZS1214	Tail Set w/o decal: Gamma 370, Pro, V2, Pro V2
AZS1218	Tail Wheel Set: Gamma 370, Gamma Pro
AZS1219	Pushrod Set: Gamma 370, Pro, V2, Pro V2
AZS1220	Control Horn Set: Gamma 370, Pro, V2, V2 Pro
AZS1225	Rubber Bands: Gamma, V2, Gamma Pro, Pro V2
AZSP0860SF	8 x 6 Slow Flyer Propeller: Gamma 370, V2
AZSP0970SF	9 x 7 Slow Flyer Propeller: Gamma 370, V2
AZSC205C	205C 2-Cell/2S 7.4V LiPo, 0.5A DC Balancing Charger: Gamma 370, V2
AZSC1205PS	1205PS 100-120V AC to 12V DC Adapter, 0.5-Amp Power Supply: Gamma 370, V2
Item Number	Upgrade Part Description
AZSA1640	Float Set: Gamma V2, Pro V2
AZSA1626	Aileron Wing Set: Gamma V2, Pro V2
AZSP8040HS	8 x 4 High Speed Propeller (2): Gamma Pro, Pro V2
AZSA1623P	Spinner: Gamma Pro V2
AZS1629	1250KV, 370 Brushless Motor: Gamma Pro V2
AZS1230	20-Amp Brushless Motor ESC w/T-connector: Gamma 370 Pro, Pro V2
AZSB10003S20D	1000mAh 3-Cell/3S 11.1V 20C LiPo Battery, T-connector: Gamma Pro, Pro V2
AZSC308C	308C 3-Cell/3S 11.1V LiPo, 0.8A DC Balancing Charger: Gamma Pro, Pro V2
AZSC1308PS	100-120V AC to 13V DC Adapter, 0.8-Amp Power Supply: Gamma Pro, P-51D, Pro V2

WARRANTY USA

30-Day Limited Warranty Term Period:

We warranty that the Product(s) purchased (the "Product") will be free from defects in materials and workmanship when the product is new (before being used) for the limited warranty term period, 30 days, from the date of purchase by the Purchaser.

If you believe a defect in material, workmanship, etc. was not apparent when the Product was new and only became evident after the Product was used, take the following steps. If you purchased the Product at a HobbyTown store, please contact your local HobbyTown store for warranty support and/or service. If you purchased the Product from the Firelands website, use the contact information found under the Support heading to contact Firelands directly.

If you contact Firelands, you may be asked to send the product to Firelands, at your cost, for inspection. Provided the warranty conditions have been met within the warranty term period, the components that are found to be defective, incorrectly manufactured or assembled may be repaired or replaced, at the sole discretion of Firelands. Your warranty item will be returned to you at Firelands' expense. In the event your product needs repair or a replacement part that is not covered by this warranty, your local HobbyTown store or Firelands can assist you with support and in obtaining the genuine replacement parts to repair your Product. Firelands will charge \$40.00 per hour plus the cost of replacement parts to service your vehicle if after contacting you, you so authorize such repairs. Your product will be returned to you at your expense.

If you purchased your Product from a HobbyTown Internet site not affiliated with a local store, please consult that site for its support and service policies. You can also find more information at:

www.Hobbytown.com

or by emailing customerservice@firelandsgroup.com

or call [800-205-6773](tel:800-205-6773)

WARRANTY + CONFORMITY



Limited Warranty

Ares products are covered by the currently valid statutory warranty regulations. If you wish to make a claim under the limited warranty, please contact the model shop where you originally purchased the unit.

The limited warranty does not cover:

Damage due to commercial use, negligence, misuse, abuse, accident, or acts of God;

Damage due to improper installation, operation or maintenance;

Normal wear and tear;

Cosmetic damage;

Modifications or repairs not carried out by Ares or by an authorised Ares Service Centre;

Product not purchased from an authorized Ares dealer;

The use of accessories other than original Ares items;

Use of the unit outside the stated specification;

Ares and its authorised representatives accept no liability for loss, damage or costs which are caused by the incorrect or incompetent use of the product.

UK Distribution

Ares is distributed in the UK by:

J Perkins Distribution Ltd. Lenham, Kent, ME17 2DL www.jperkins.com



CE Conformity

J Perkins (Distribution) confirms this product is in compliance with the relevant harmonised European directives relating to its safe operation.

To see a copy of the relevant Declaration of Conformity visit:

<http://www.ares-rc.com/support>



WEEE

This appliance is labelled in accordance with European Directive 2012/19/EU concerning Waste Electrical and Electronic Equipment (WEEE).

The WEEE Directive came into force to reduce the disposal of domestic waste and promote recycling. Any electrical item that carries the crossed out wheeled bin logo must not be disposed of in domestic waste but should be taken to a designated collection facility.

J Perkins (Distribution) are a member of an approved compliance scheme to encourage consumers to recycle unwanted items. Your local authority will be able to provide details of your nearest approved waste disposal site.

ARES

www.Ares-RC.com

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