ARES

# Alpine 1200

## Owner's Manual & Technical Information

### RFR (Ready For Receiver)

## Specification

Wingspan:.....1200mm (47.25in.)

Root Chord:.....140mm (5.5in. )

Wing area:.....1558.5sq.cm (242sq.in)

Fuselage length:.....775mm (30.5in.)

All-up weight: .....500g (17.6oz)

Battery: .....2S 7.4V 1000mAh LiPo (not included)

Motor:.....1050kV brushless

ESC:.....20A brushless

Propeller:.....9x7" folding

## Contents



IMPORTANT! This radio control model is not a toy. It must be operated and flown according to these instructions and may cause serious injury to persons or damage to property if not used responsibly or if operated without due caution. Unsuitable for children under 14 years of age.

## Introduction

Experienced model pilots know a good motor-glider when they see one. The telltale signs are written large, categorised by a useful practicality, a sound design and a healthy performance. The Ares Alpine 1200 is just such a machine, in fact it's so good that, to be fair, the 'motor-glider' designation is something of a misnomer. Here at Ares we like to think of the Alpine as more of a sport glider for within these distinct categories are the features that highlight a great aircraft:

Practicality. As a relatively small model the Alpine is easy to store, easy to carry, simple to launch and, as a result, perfect for the slope, flat field or park. Its EPP foam construction is beneficial too for not only is it durable and light, it's dead easy to repair.

Design. Semi-symmetrical in section, with a reflex trailing edge and drag-reducing winglets there's nothing crude about the design of this 1200mm high aspect ratio wing. It's built for total efficiency, with an eye on duration, and it just works.

Power to weight. Packing a pre-installed 1050Kv brushless motor, 20 Amp ESC, 9 x 7" folding prop and a low all-up weight, a sparkling performance is a mere throttle movement away. Look forward to a positive roll, crisp aerobatics and a rate of climb that'll make you smile.

Of course, that's not the whole story. There's far more to the Ares Alpine 1200 than that, not least its pleasing lines and striking colour scheme. Pick it up and you won't want to put it down. Fly it and you'll fall in love.

## 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 recognise the noted certifications for this product as authorised for sale and use: USA, UK, AU and EU

## Safety Precautions

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

Keep items that could become entangled in the propeller 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's 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.

- 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. that are not specifically designed and protected for use in water.

## LiPo Battery Warnings

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 the mishandling of LiPo batteries can result in fire.

- You MUST charge your LiPo battery in a safe area away from flammable materials.
- NEVER, at any time, leave your LiPo battery unattended when it's being charged.
- When charging your 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 your battery you must allow it to cool to ambient /room temperature before recharging.
- To charge your LiPo battery you MUST use a suitable LiPo 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.
- Always charge your LiPo in a proprietary, fireproof, dedicated LiPo charge bag.

If at any time during the charge or discharge process your 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.

For best results, store the battery at room temperature – approximately 68 – 77° Fahrenheit (F) – and in a dry area.

## Box Contents

Your Ready For Receiver Alpine 1200 box contains the following parts:

- 1 x Factory assembled and decorated fuselage assembly with pre-installed brushless motor, folding propeller, electronic speed controller (ESC) and 2 x 9g servos.
- 1 x Left-hand wing panel with 1 x 9g servo.
- 1 x Right-hand wing panel with 1 x 9g servo.
- 1 x Fin with pre-hinged rudder.
- 1 x Tailplane with pre-hinged elevator.
- 1 x Steel wing spar.
- 1 x Quick-Start Guide.

## Required to Complete

Before you commence the final assembly of your Alpine 1200 you will need the following equipment and tools:

- 4-channel 2.4GHz air transmitter and receiver combo – Hitec compatible IKONNIK KA-6 recommended from J. Perkins stockists (KNNA1000 / Mode 2 or KNNA1000M1 / Mode 1).
- 1000mAh 20C 2S LiPo with HCT plug – Ares pack recommended from J. Perkins stockists (AZSA1631).
- 2S LiPo charger – Radient Primal recommended from J. Perkins stockists (RDNA0042).
- Self-adhesive hook and loop tape.

- EPO foam glue – Multiplex Zacki Elapor Foam recommended from J. Perkins stockists (25592727).
- Phillips screwdriver.
- 10mm box spanner.

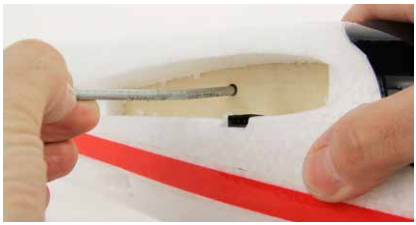
## Airframe Assembly

1. Remove the components from the box and ensure you have the following parts:
   - Fuselage assembly
   - A left- and right-hand wing panel
   - Tailplane, fin and rudder
   - Steel wing spar

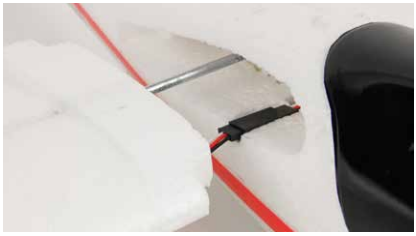

2. Connect the aileron servo plug for the left-hand wing panel into its mating fuselage socket making sure to push it fully home whilst maintaining the correct orientation / polarity.

3. Slide the left-hand wing panel fully into the fuselage, preceded by the aileron servo lead which is sandwiched between wing and fuselage.

4. Take the steel wing spar and with the bend facing upwards forming a shallow V-shape (dihedral), slide it through the fuselage and fully into the left-hand wing panel.



5. Pass the right-hand wing panel partially over the free end of the steel spar and connect the aileron servo plug to its mating fuselage socket ensuring that the correct orientation / polarity is maintained.



6. Push the right-hand wing panel fully into the fuselage, preceded by the aileron servo lead as before. Be sure to maintain the dihedral otherwise some difficulty may be experienced in getting the wing to fit.

7. Turn the Alpine upside-down and tighten the wing fixing screws to lock the panels in position. Give the panels a gentle tug to ensure they're secure.

8. Dry fit the tailplane to the fuselage then, using the wing as a guide, check that the tail sits level. When happy with the fit, apply a generous but even spread of glue to the mating surfaces and glue the tailplane in position using masking tape to hold it level. Leave the adhesive to cure.

9. Dry fit the fin then, using the wing as a guide, check it for vertical alignment. When happy with the fit, apply a generous but even spread of glue to the mating surfaces of both fin and tailplane and glue the fin in position using masking tape to hold it level. Leave the adhesive to cure.

10. Remove the magnetic canopy hatch and locate the rudder, elevator and aileron servo leads, plus the throttle lead from the ESC. Pair your chosen transmitter and receiver, then connect the leads to the respective rudder, elevator, aileron and throttle sockets on the Rx.

11. Use hook and loop tape to attach the receiver beneath the wing seat, far enough back to allow room for the battery which is positioned directly behind the rudder and elevator servos. Stow the servo leads beneath the receiver.

12. To ensure absolute safety during the set-up process it is essential that you now remove the propeller. Using a Phillips screwdriver and a 10mm spanner, remove the spinner cone followed by the propeller hub / blades.

13. Power ON your transmitter, centre all trims, set low throttle, then connect a fully charged 1000mAh 2S LiPo to the ESC's HCT lead. On connection of the battery two short beeps and one long beep will be heard, indicating that the ESC is armed and operational. Secure the battery directly behind the servos using hook and loop tape.

14. Connect the elevator and rudder clevises to the outer hole of e ach control horn noting that you may have to screw the clevis in or out to ensure that the control surface remains in the neutral position.

15. Connect the aileron clevises to the outer hole of each control horn noting that you may have to screw the clevis in or out to ensure that the control surface remains in the neutral position.

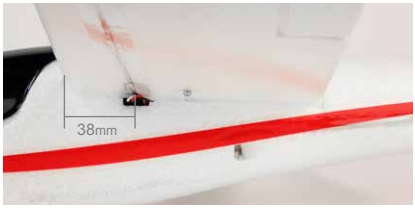
16. Make sure the control surfaces operate in the correct direction noting the following recommended control movements:

| | |
|---|---|
| Aileron: | 6mm each way |
| Elevator: | 8mm each way |
| Rudder: | 15mm each way |

17. With the propeller removed, open the throttle slowly and check that the motor shaft turns in an anticlockwise direction (when viewed from the front).

18. Unplug the LiPo battery and switch OFF the transmitter. Re-assemble the propeller and spinner making sure to tightly secure the propeller nut before refitting the spinner cone.

19. With the LiPo battery inserted and the canopy refitted, check the balance point. This should be 38mm back from the leading edge of the wing, measured at the root.




20. With the throttle stick in the low position, switch ON the transmitter. Remove the canopy and connect the battery to the ESC whilst keeping well clear of the live propeller. Refit the canopy and check again that the control surfaces move in the correct direction.

21. Your Alpine 1200 is now ready to go.

## Flying Your Alpine 1200

Where model flying is concerned it's not possible to have too much space. As such we recommend flying your Alpine in a large enough area to ensure that control is relaxed and that you have time to think. The area required will be free of obstructions and at least the size of a football pitch. We suggest that early flights be carried out when the wind conditions are light, however once you're familiar with your Alpine you will easily be able to fly in less favourable conditions. If you're new to model flying it will be essential to get the help of an experienced model pilot to assist with your first flight and give you valuable guidance.

Existing RC pilots will be able to solo launch the Alpine to get it airborne. Novice pilots, however, should employ the services of a second person and should note the following:

- Always launch your Alpine DIRECTLY INTO WIND
- Smoothly APPLY FULL POWER immediately before launching
- Always launch the model with the WINGS STRAIGHT AND LEVEL
- Launch the model with the NOSE POINTING SLIGHTLY UPWARD, never downward
- Make your launch positive but not javelin-like. The Alpine has power enough to pull away easily so you only need to GIVE IT FLYING SPEED

With the model airborne, ease the elevator stick back to smoothly climb out and when good altitude has been achieved initiate a gentle aileron turn whist continuing to climb. At cruising height you can reduce the throttle and perform some relaxed familiarisation circuits whilst keeping the model well within visual range. Experienced pilots will find the Alpine easy and forgiving to fly in a variety of conditions. On both flat field and slope it's a great all-round sportster, a superb thermal soarer and a capable aerobat.

Landing can be intimidating for novice pilots, however given that the Alpine has a folding propeller and no undercarriage to bend it's perfectly able to look after you. Even so, make sure that your turn onto final approach positions the nose of the aeroplane directly into wind, ease the power back to reduce altitude and keep the wings straight and level all the way down. As the ground approaches, shut the throttle to stop and fold the propeller then apply a final application of elevator to flair for a gentle touchdown.

As you'll find, the Alpine is perfect for pilots of mixed ability and would make a superb choice for single model club competitions involving climb 'n' glide, spot landing, aerobatics and even streamer combat. There's heaps of fun to be had here. Pass the transmitter around and you may struggle to get it back. Enjoy.

## Replacement Parts

| | |
|---|---|
| AZSA3103 | Fin and Tailplane |
| AZSA3104 | Motor Mount |
| AZSA3105 | Fuselage Pushrods |
| AZSA3106 | Main Wing and Hardware |
| AZSA3107 | Fuselage |
| AZSA3108 | Propeller Set |
| AZSA3109 | Motor Shaft |
| AZSA3110 | Spinner Set |
| AZSA3111 | Wing Servo |
| AZSA3112 | Tail Servo |
| AZSA3113 | 20A Brushless ESC |
| AZSA3114 | 2826-1050kV brushless motor |
| AZSA1631 | 7.4V 1000mAh LiPo battery |
| AZSA3102 | Alpine 1200 Glider RFR |

## Warranty, support and service (UK)

This product is covered by the current statutory guarantee regulations. If you wish to make a warranty claim, please contact the model shop where you originally purchased the product from. You should also present your proof of purchase.

- The guarantee does not cover faults or damage caused by:
- Incorrect handling or operation
- The use of incompatible accessories
- Modification or unauthorised repairs
- Accidental or deliberate damage
- Normal wear and tear
- Using the product outside of its stated specification

Firelands Group LLC accepts no liability for loss, damage or costs which are incurred due to the incorrect or incompetent use of the product.

## CE Conformity Declaration

This device has been tested in accordance with the relevant harmonised European directives. This product's design fulfils the protective aims of the European Community relating to the safe operation of this equipment.
For a copy of the Declaration of Conformity, please visit:
*www.ikonnik-rc.com/support*

## Disposal

Electrical equipment marked with the crossed out wheelie bin symbol must not be disposed of in household waste, but must be taken to a specialist disposal or recycling system. In EU member countries, electrical equipment must not be discarded via the normal domestic refuse channels (WEEE - Waste Electrical and Electronic Equipment Directive 2002/96/EG). You should take unwanted electrical equipment to your nearest local authority waste collection point or recycling centre.

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