

INSTRUCTION MANUAL



P-51 'GALLOPING GHOST'

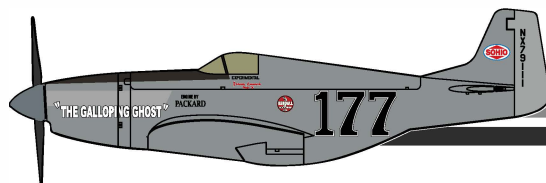
H-KING'S 1016MM SPAN, PLUG & FLY SPORTS-SCALE HOT ROD!

H·KING

Please read this manual carefully before operating this plane.

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WARNING

Read this instruction manual fully so as to become completely familiar with the features of the product before operating. Failure to operate this product correctly could result in damage to the product, personal property and cause serious injury. This is a sophisticated hobby product and is NOT a toy. It must always be operated with caution, common sense and some basic mechanical ability. This manual provides instructions on the assembly, safe operation and maintenance of this hobby product. It is highly recommended that you read and follow fully the instructions and warnings stated in this manual including safety, assembly, set-up and flying guidelines in order to operate this product correctly and avoid damage or serious injury.

SAFETY PRECAUTIONS

As the user of this product you and you alone are responsible for operating it in a manner that does not endanger yourself and others around you or result in damage to the product or property of others. This product is operated via a radio controlled system that in some cases can be subject to interference from sources outside of your control. Interference may result in a momentary loss of control so it is always recommended that this product be used in a suitable open outdoors space.

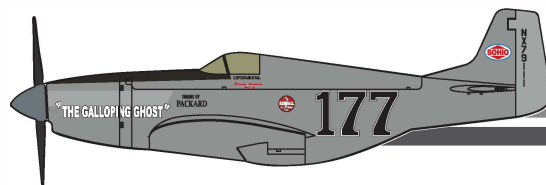
- This is a radio controlled flying model and as such must always be flown with caution, this is NOT a toy.
- The H-King P-51 "Galloping Ghost" brief was to design a plane that is fast, and looks good for intermediate to experienced pilots.
- Always exercise great caution when using the recommended battery to power this product. For full safety notes and operating procedures please read the information provided by your battery supplier.
- Take great care when connecting/disconnecting the battery. Once again see your battery suppliers information for the full safety procedures.
- Never power up the model in a confined space and always keep the propeller clear of obstructions, clothing and parts of your body.
- This product is not a toy, children must be accompanied by an adult at all times when operating this product.
- Only fly this model in an open area away from crowds, people, buildings, trees, power lines, roads, airports and other obstructions.
- Always put safety first when operating this model and consider the warnings stated above.
- The supplier/manufacturer accepts no responsibility for damage or injury caused through the use of this product. A reminder that it is not suitable for children under the age of 14. THIS IS NOT A TOY.

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INTRODUCTION:

The H-King P51 "Galloping Ghost" is the first in a new mini-series from H-King, the "Reno Aces", WW2 fighters dressed to impress at the air races. The P-51 "Galloping Ghost" with the included stock 3108-1070KV brushless motor offers a really quick model straight out of the box with speeds approaching 100mph when using the recommended 2200mah 4S lipo. However, if you are an experienced hand and are looking for 100+ mph speeds then there is the optional drop-in fit 3108-1170KV 'Pro' brushless motor. This will give your great-looking Reno Ace a really ballistic performance on the same prop, ESC, and 4S battery for those that can handle the extra rotational torque on launch..

The P-51 as a design has excellent flying qualities, but the H-King "Galloping Ghost" especially so. Its low drag design and generous wing section results in a model that really grooves and feels locked in at full power, but slow it down and it is a real pussycat too, and just as much fun. The stall is very benign, basically non-existent, the controls remain effective through the complete speed range, and aerobatics, it can do them all. Once you're done with your 6+min flight, fully flared landings are very easy to achieve and make belly landing the P-51 a pure joy.

So to summarize, the H-King P-51 "Galloping Ghost" is fast out of the box with the pre-installed motor (optional 'Pro' motor available for even more speed), it has fantastic flying qualities with good fast and slow speed handling, is strong, and quick to assemble. It is a great contender for use at fun, club pylon racing events with the strength and maneuverability to do "Bank and Yank" pylon turns. A great, fun airplane that is brilliant to fly, looks fantastic in the air, and will have you smiling from ear to ear the whole time you are flying it.

Thank you, and please have an amazing time with your new H-King P-51 Galloping Ghost



FEATURES:

- Up to 100mph on 'Stock' motor. 100+ mph speeds with optional 'Pro' motor.
- Reinforced EPO foam construction, lightweight, strong and stiff.
- Plastic skid plates to streamline and protect the airframe.
- Easy and quick assembly in just a few minutes.
- Easy to hand launch, super easy to belly land.
- Super stable at high and low speeds.
- Optional clear or golden canopy included.

SPECIFICATION:

- Span: 1016mm/40inch
- Weight RTF: 960g/33oz
- Length: 864mm/34inch
- Servo: 4pcs 9g digital
- Prop: 8x6
- ESC: 40A brushless ESC
- Motor: 3108 1070kv 'Stock' motor, 'Pro' 1160kv motor optional
- Battery: 2200mah 4S 30-60C recommended

CONTENTS

1. Fuselage
2. Wing
3. Horizontal Tail
4. Canopies
5. Spinner
6. Prop, Mounting Accessories
7. Prop Adaptor

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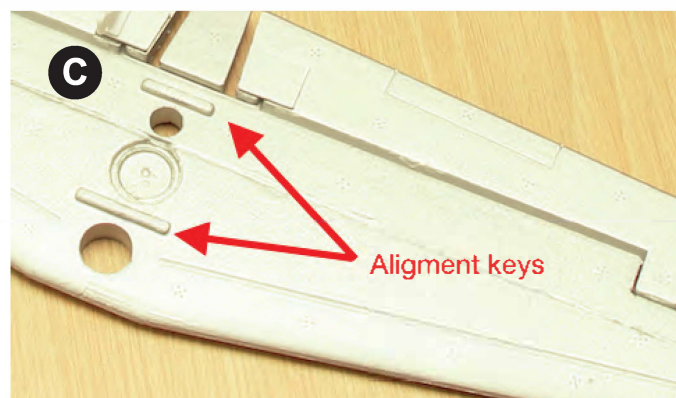


A. Horizontal stabilizer installation.

- 1 Prepare the parts shown below.



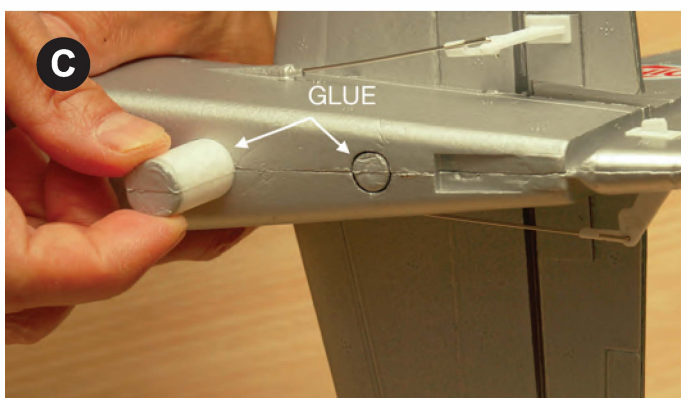
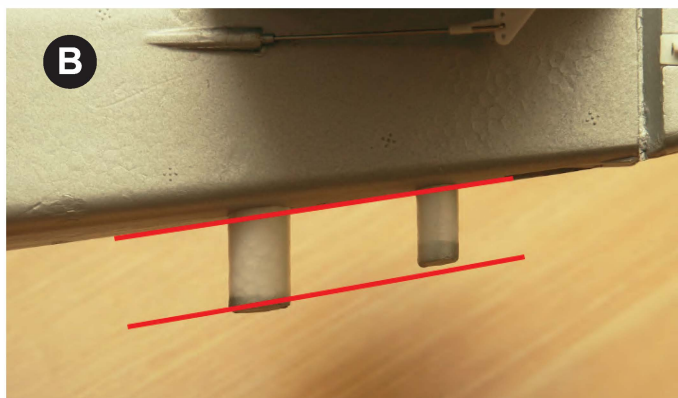
- 2 Slide the horizontal tail into opening at the rear of the fuselage (A) noting to match the alignment keys on the tail with the alignment slots in the fuselage (B). It can be a little tight, so dry fit first and pull the fuselage slot open a little to help if needed (C). Before you push the tail into its final centered position apply a small amount of foam glue to the tail before pushing finally into place (D). With the tail in position, check it is centered to the fuselage, the keys on the tail will ensure its aligned to the wing (E).





- 3** Once satisfied with the tails fit, locate the two foam tail retaining pegs. One is bigger than the other, the bigger one going in the forward hole and the smaller into the rear on the bottom side of the fuselage (A). Note also the ends of these are angled to match the profile of the fuselage so dry fit first to confirm correct orientation (B), then pull out, apply a small amount of foam contact glue and install once more ensuring the base of the pegs are flush with the bottom of the fuselage (C).

NOTE: If you have trouble pushing both foam pegs in, gently wiggle the horizontal stab until the corresponding holes in the tail align with the fuselage. With the pegs pushed into the fuselage fully, this should lock the the stabilizer in place without any issue.

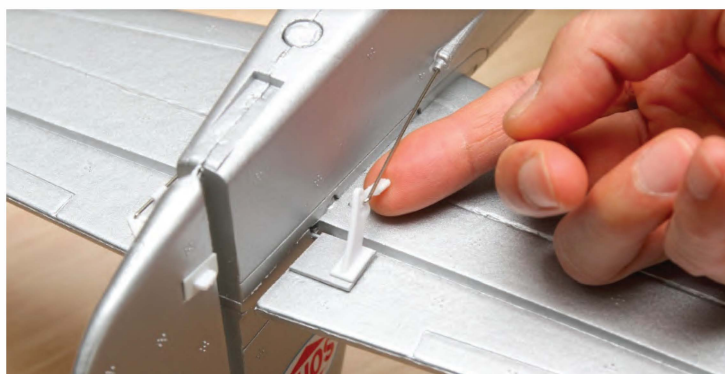


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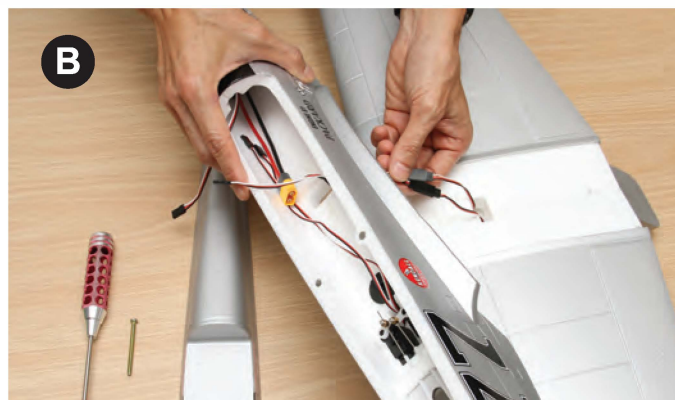
- 4** You can now connect the pushrod to the elevator control horn by removing the plastic rod keeper, inserting the pushrod end into the top hole of the horn and clipping it back into place on the pushrod to secure it to the control horn as shown.



Wing Installation:

- 1** Lift the canopy hatch by pulling up the plastic tape at the rear (A). Now feed through the aileron Y-lead into the fuselage as shown (B), position the wing onto the fuselage by pushing the wing pegs on the leading edge into the wing peg slots on the fuselage (C) and finally secure the wing in place using the supplied 4mm x 50mm wing bolt as shown (D)

Note: Be sure not to over tighten the wing bolt, it should not be so tight that it deforms the foam of the fuselage around the plastic wing bolt washer. If the wing is still a little loose for your liking you can either apply a small amount of contact foam glue or some double sided tape to the wing where it meets the fuselage for added security if desired.



Receiver Installation:

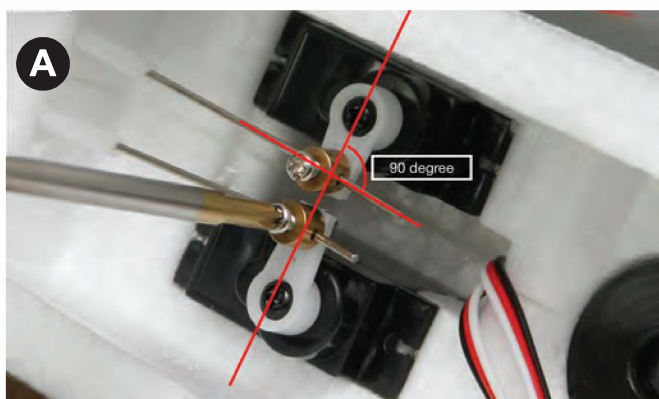
- 1 Use the supplied self adhesive velcro to secure the 4-6ch receiver (Rx) of your choice in the approximate location in the fuselage as shown (A). Connect the ESC (throttle), aileron, elevator and rudder servos to the corresponding channels of your Rx as stated in the manual supplied with it (B). Use clear tape to secure any excess servo leads or Rx aerials if you wish at this point. With your Rx installed you can now move onto the final stage of the electronics set-up.)



Final servo adjustments and set-up:

WARNING: FOR SAFETY REASONS NEVER ATTEMPT TO POWER UP AND SET-UP YOUR MODEL WITH THE PROPELLER ATTACHED. COMPLETE ALL ELECTRONIC SET-UP WITHOUT THE PROPELLER INSTALLED, FAILURE TO DO SO COULD RESULT IN DAMAGE TO YOURSELF, THE MODEL AND PROPERTY.

- 1 With your transmitter (Tx) turned on and bound to your receiver, connect your flight battery the ESC supplied. The model is now powered and you should have control of the servos. You can now center all control surfaces and confirm they are moving in the correct direction. To mechanically center the control surfaces first ensure your trims are neutral on your radio and back on the model the servo horns are 90 degrees to the pushrod (A). Loosen the screw on the push rod quick connector to allow the control surface to move freely (A). Now place the control surface so they are neutral and level and once confirmed, tighten the screw of the push rod quick connector firmly (B)..)



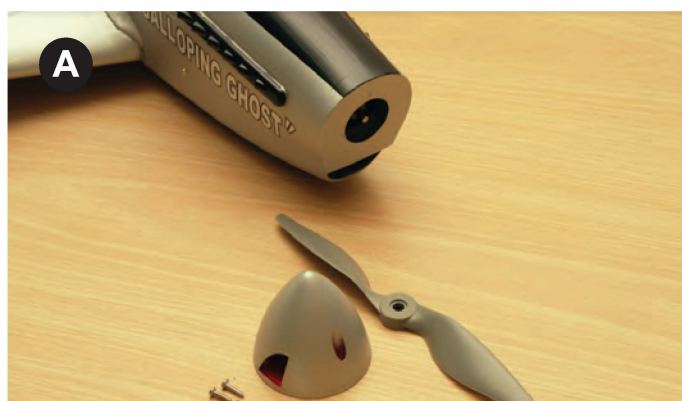
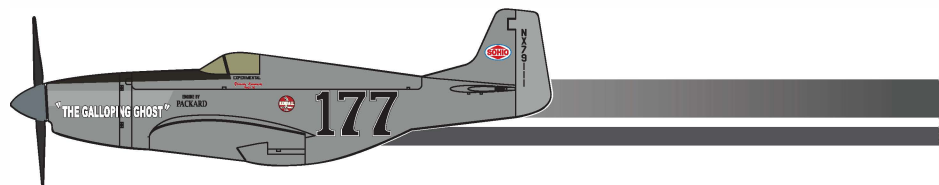
Proppeller and Spinner installation:

NOTE: It is highly reccomended to balance both the prop and the spinner before flight. This will result in less vibration and wear to the airframe and a more efficient set-up in flight

- 1 Locate the prop, spinner and complete prop adaptor as shown (A). First slide the prop adaptor onto the motor shaft followed by the spinner back plate then place the prop onto the prop shaft and tighten with the remaining washer and prop nut as shown (B). Be sure to position the rear edge of the prop just ahead of the small plastic vertical pegs. This will ensure the spinner fits correctly over the prop.

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- 2 With the remaining screws, screw the spinner in place over the prop and onto the backplate. If the spinner screws are not aligning with the screw holes in the back plate, loosen the prop and turn it a fraction until you have a perfect fit as shown below (A).



Canopy installation:

- 1 Your H-King Galloping Ghost comes with a choice of two different canopies to install, either the 'clear' or 'gold' options (A). Dry fit each canopy with the hatch in place on the fuselage to see which you prefer. Once decided remove the hatch and glue your chosen canopy in place using a small amount of foam contact glue around the lower edge of the canopy. Position in place and leave to dry as shown (B).



The basic assembly of your Reno Aces Galloping Ghost is now complete. Please perform a final check on all screws, bolts components, ensuring all are secure and firmly in place before the final set-up stage.



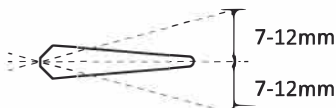
Control set-up and CG:

Please follow the below control throw and Center of Gravity recommendations before attempting to fly your H-King Reno Aces P-51 Galloping Ghost with the recommended 2200mah 4S 30-50C Lipo.

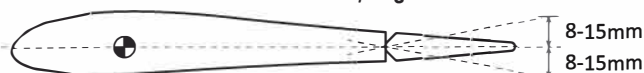
Elevator: low 5mm, high 8mm



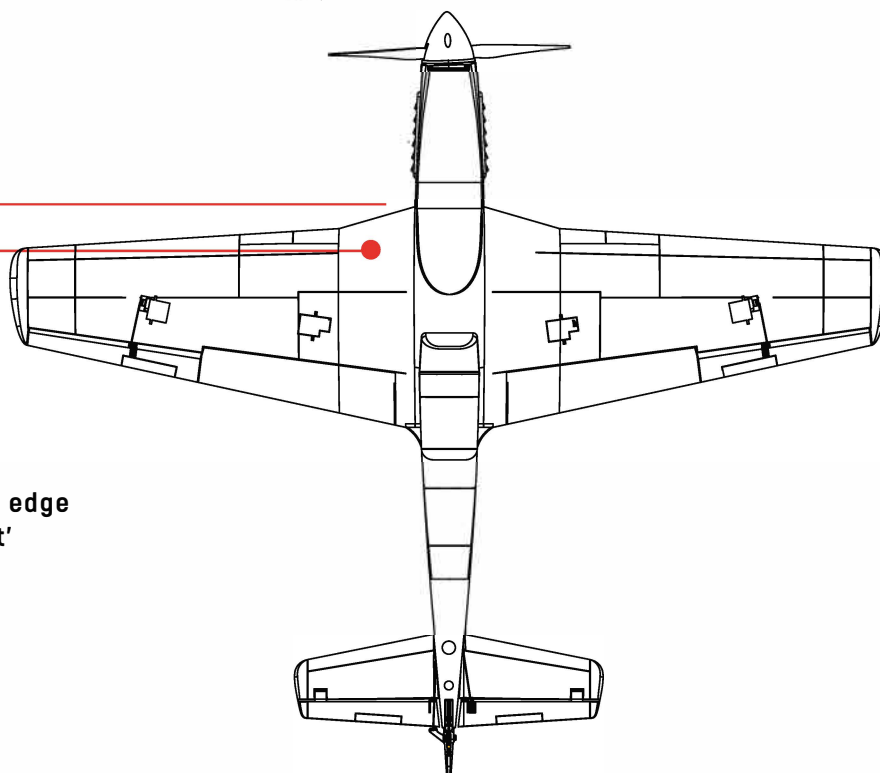
Rudder: low 7mm, high 12mm



Aileron: low 8mm, high 15mm



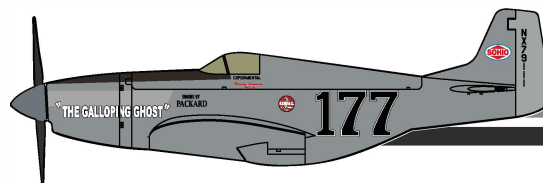
CG 65-70mm



'65-70mm from leading edge
measured at wing root'

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Congratulations you have now fully assembled your H-King Galloping Ghost and are ready for flight. However it is recommended you read and follow the advice and tips given in the following pages before you fly this model.



Pre-Flight Checks:

1. Always check wings and control surfaces for alignment and damage. Check all connections to the control surfaces, check all screws and glue joints.
2. Check the propeller for any damage. If damage is found, replace it with a new one.
3. Ensure the battery is installed in the right location for the correct CG.
4. Always turn your transmitter on before powering up your RC plane.
5. Periodically perform a range check with your transmitter. Make sure your plane is secure to prevent damage to people and property.
6. Check plane responds properly to control inputs and the direction of travel is correct.
7. Visually re-check all your control surfaces, airframe, screws and motor mount are in working order.
8. Check the voltage of your transmitter and flight battery before flying, otherwise it will be a short flight!

Launching:

1. The Galloping Ghost should always be launched with an under arm launch. Hold the model from the top of the fuselage at the approximate location of the CG. This is the best way to hold the P-51 for launching.
2. Holding the model firmly with one hand and the radio in your other, raise the throttle to around 65-70% (your chin is good for doing this), and in a swinging motion, from your side launch the model up with some force holding a bit of right aileron and up elevator in as you do and release once you come to the end your swing at the point at which it has the most energy.
3. Once the model has left your hand continue to hold in some up elevator and right aileron until you can bring your hand back down from the position of release to place it back on the throttle. Once on the throttle increase to full power for a rapid and clean climb out.

Note: If this is your first hand launch model it is recommended you ask a model experienced flyer to launch for you, at least for the maiden. Or if you prefer, you can always ask a fellow club mate to always launch the model.

Flight:

In flight the P-51 Galloping Ghost is well behaved and stable throughout the speed range. With the low rate settings as outlined in this manual the Reno Aces P-51 is smooth to control and at full speed carves effortlessly through the air in turns and graceful maneuvers. In the high rate setting the Galloping ghost is transferred from a scale racer to a aerobatic hotrod capable of snap rolls, knife edges, flat spins and more.

Landing:

With its thick wing section allowing the Galloping Ghost to remain stable even at the slowest of speeds and plastic skid plates at all the major contact points, belly landing your P-51 is both easy and worry free if you follow these basic steps below.

1. Start your final approach into the landing **WITH** throttle. The spinning prop will not only continue to provide airflow (and thus control authority) over your control surfaces, but also actually help to slow the model down when the low end of the throttle is used on approach.
2. As you approach the ground keep the model level and when about 20cm from the ground begin to ease in a little more elevator to begin the flare process (the process of raising the nose to reduce the forward speed of the airframe and touch down with the nose slightly raised) whilst at the same time reducing throttle further.
3. Now that you've entered the flare and as the model gets lower to the ground, cut the motor completely. This will reduce the risk of damage to the prop and stress on the motor.

The Galloping Ghost is in fact a breeze to land and basically effortless too if you keep in mind the above steps.

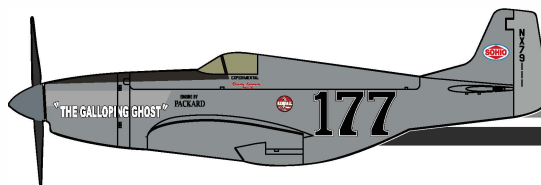


Flying Tips:

1. Always remember to launch holding a little right aileron (to counter the rotational torque of the motor/prop) and up elevator (to maintain a positive attitude of the nose) when launching the Galloping Ghost.
2. A balanced prop will always result in a more efficient power system and reduced stress on the airframe. Always balance the supplied prop and check it after every landing for damage.
3. Use a high C rated battery pack for optimal performance from the power system supplied with the P-51.
4. Explore the slow speed flight of your model. The Galloping Ghost is just as much fun going slow as it is fast.
5. The P-51 has a great glider rate, so be sure to bleed off speed on your approach if flying from a small field.
6. Carry a spare prop in your Tx case, you never want to be without a spare prop when flying a belly lander.
7. Use a silver marker pen to quickly and effectively touch up the paint finish of the Galloping Ghost if it chips.
8. If you are a more experienced pilot buy the optional 'Pro' motor and enjoy speeds of well over 100mph!

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PROBLEM SOLVING:

Phenomenon	Typical error	Problem solving
Motor does not run	1. The battery is not full charged 2. The battery of the transmitter is low on power. 3. Something is disconnected in the plane	1. Charge the battery 2. Replace the battery in the transmitter. 3. Check motor, ESC connections.
Motor runs backwards	1. Motor/ESC connection error	1. Swap around any 2 of the 3 ESC/motor wire connections
Servos not operating properly	1. The servo leads are connected to the Rx incorrectly. 2. The servo is damaged.	1. Make sure the servo leads are connected properly. 2. Replace servo.
Difficult to trim	1. Control surfaces not centered. 2. CoG is not in the correct position.	1. Adjust the trims on the transmitter. 2. Re-position the battery suggested.

SPARE PARTS:

**Propeller Adapter
(Collet Type) 4MM**
SKU: GON-D4T6



Fuselage Set w/Decals
SKU: 9898000031-0



Cowl w/Decals
SKU: 9898000033-0



Hatch Cover w/Golden Canopy
SKU: 9898000035-0



8x6 Propeller
SKU: 9898000052-0



Wing Set w/Decals
SKU: 9898000030-0



Horizontal Stabilizer
SKU: 9898000032-0



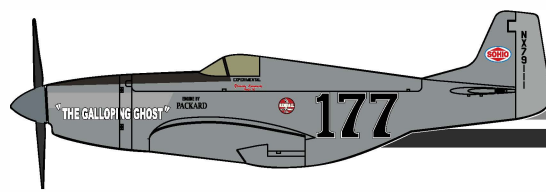
Spinner w/Backplate
SKU: 9898000034-0



3108-1070KV Brushless Motor
SKU: 9898000051-0

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RECOMMENDED ACCESSORIES:



**OrangeRx Tx10i Mode 2
EU Version**
SKU: 9171001399-0



**Turnigy 9X 9Ch Transmitter
w/ Module & iA8 Receiver**
SKU: 9114000070-0



**OrangeRx R720X V3 7Ch
2.4GHz DSMX**
SKU: 9171001395-0



**OrangeRx RSF08SB Futaba
S-FHSS/FHSS-2**
SKU: 9295000020-0



**Turnigy Graphene Panther
2200mAh 3S 75C Battery Pack**
SKU: 9067000371-0



**Turnigy 2200mAh 4S 20C
Lipoly Pack w/ XT60 Connector**
SKU: 9067000234-0



**Turnigy Bolt 2200mAh 3S 11.4V
65~130C High Voltage
Lipoly Pack (LiHV)**
SKU: 9210000171-0



**Optional Pro 3108-1160KV
brushless motor**
SKU: 9898000053-0

RECOMMENDED PARTS:

HXT900 Micro Servo 1.6kg / 0.12sec / 9g
SKU: HXT900



Turnigy TG9e Eco Micro Servo 1.5kg / 0.10sec / 10.1g
SKU: TG9e



Foam-Cure EPP and EPO Foam Glue 4 oz.
SKU: 9117000006-0



UHU POR Glue
SKU: 9934000001-0

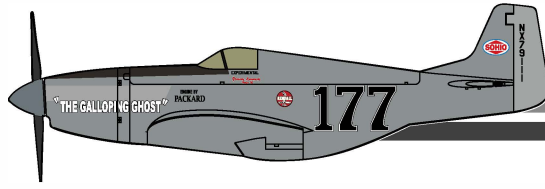


HobbyKing Super Glue CA (50g / 1.7oz) Medium
SKU: HC-50-175C



HobbyKing Super Glue CA (50g / 1.7oz) Thick
SKU: HC-50-1100C

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NOTES:

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