



Congratulations on the purchase of your AirRage R/C Aircraft. These planes are designed to fly great and be easy to "learn how to fly". But remember, these are aircraft, so you must spend a bit of time reading through this manual so you can learn what to do, and what not to do. Look for these **Tip!** symbols for extra help!

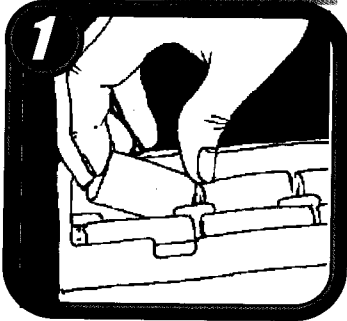
INSTRUCTION MANUAL

NORTHROP GRUMMAN

B-2 SPIRIT

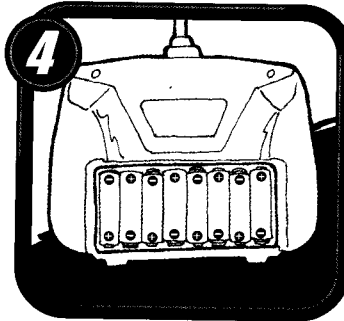


PRE-FLIGHT



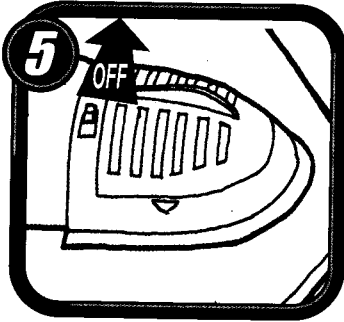
Field Charger Preparation.
- Unscrew the two screws holding the rear cover to the charger body and slide cover off. Install 8 C alkaline batteries ensuring that the polarities are correct, according to the diagram inside the charger.

Tip! Make sure to use new alkaline non-rechargeable batteries for best plane operation.

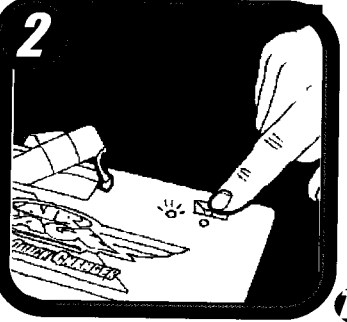


Install Transmitter Batteries.
-Remove the rear cover of the transmitter and install 8 AA alkaline batteries making sure that the polarities are correct.
-Switch to ON, and ensure that the LED light up.

Flight Battery Charging.
- Unscrew the two screws holding the rear cover to the charger body and slide cover off. Install 8 C alkaline batteries ensuring that the polarities are correct.
1. Plug the plane's battery pack into the charge socket in the top of the charger.
2. Switch the charger "ON" by sliding the power-switch to the "ON" position. The power LED will illuminate, the charge LED will blink and battery charging will begin.
3. Charge time is 20 minutes for a fully depleted battery pack. When the battery is fully charged, the "Charging" LED on the charger will turn off and charging will stop.

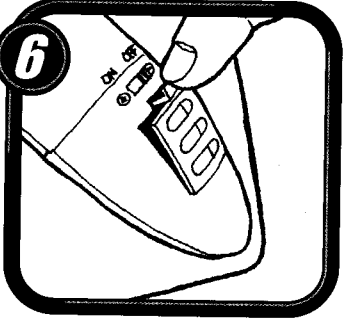


IMPORTANT!
Switch Plane Off!
-Push the power switch on the underside of the plane to the off position.
-Always remember to shut your plane "OFF" whenever it is being charged, or not in use.
CAUTION:
Never turn "ON" the plane when the transmitter is "OFF"!



4. Turn the charger "Off".
5. Note that you can power the charger using AC current if you supply your own AC adapter and plug it into the coaxial input jack on the side of the charger. The adapter should rated with DC 12V, 1A output and central pin positive. The charger operation and charge time will remain unchanged.

Tip! Do not let the battery get too hot. Warm is okay - hot is not.



Battery Installation.
-locate the vertical tab in front of the on/off switch. Press it towards the nose of the plane while gently pulling upwards. The battery hatch will pop off.
-Plug the battery into the plane and insert it into the battery compartment.
-'Click' the hatch closed.

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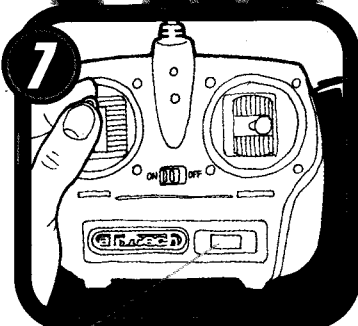
Kit Includes: R/C plane, Quick Charger, Radio Control System, Ni-MH Battery, Wind Ribbon and Instructions.

PLEASE DO NOT RETURN THIS PRODUCT TO ANY RETAIL STORE!

For any questions or problems with this product please call 1-866-214-2220. Visit our website: www.interactivetoy.com or E-mail us at info@interactivetoy.com



PRE-FLIGHT continued



7
Motor Check.
 Hold the left stick in the "off" position (down).
 -While a friend holds the aircraft, test the following:
 •Move the left transmitter stick forward halfway-Both motors should run
 •Move the left transmitter stick backward -both motors should stop.
 •Move the right stick to the right
 -The left motor should run faster.
 •Move the right stick to the left
 -The right motor should run faster.

Note: Transmitter assignment located on the front of the transmitter is not removable or interchangeable.



8
Radio Range-Check.
 -Turn on the transmitter but leave the antenna down, then switch on the plane. Have a friend hold the plane, walk about 20ft. away and with the antenna down, make sure that the plane's motors respond to control inputs from the transmitter.

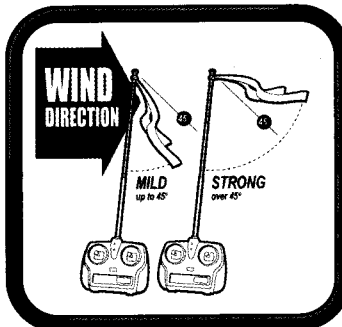
Tip! IMPORTANT!

Never attempt the Motor Check and Radio Range-Check Pre Flight without the help of a friend or parent. Do not try these tests alone as the aircraft propellers could cause injury if they come in contact with your fingers while running. Also the aircraft could actually take off causing damage to the plane's structure.

LAUNCH

-Be sure to operate and fly your aircraft only under adult supervision.
-Keep clear of the propeller blades!

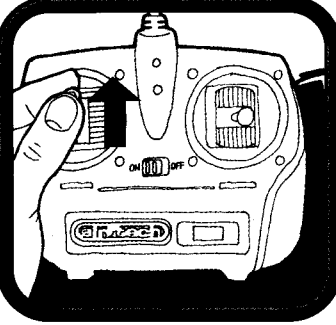
-Do not fly near cars, people, pets, overhead wires, bodies of water, buildings, trees, etc. -Use common sense!
-Fly only in large grassy open areas. -Keep plane away from people, vehicles and any other



Flight Conditions.
 -Wind speed must be below 5mph. (8km/h). The wind-indicator ribbon should be at no more than a 45 degree angle.
 -Humidity and temperature must be comfortable (not too hot) so that the air is fairly dense.
 -Your altitude should be below 2000ft. above sea level.

Tip! IMPORTANT!

When hand launching the plane be careful not to release the plane with the nose pointed downwards!
 It must leave your hand at the recommended 20-30 degrees upwards angle to launch properly. Be sure not to hold onto the plane past these angles when releasing or the plane may crash and damage to the plane structure is possible.



Launch.
 -Hold the controller in your left hand and the plane in your right hand.
 -Turn so that you are facing into the wind.
 -Push the left throttle stick forward all the way so that both motors are running.
 -Gently toss the plane at an upwards angle of about 20-30 degrees. Do not throw the plane too hard or the motors may stall. Use about the same force as you would throwing a dart at a dart board.
 -Keep the throttle on until you reach a safe altitude of about 40ft.

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CONTROL IN FLIGHT

Troubleshooting: General Tips

Slow Motors:

If your electric motors seem to be turning too slowly put a single drop of oil down into the motor, along the shaft that drives the propeller. Do not use more oil – a little bit is enough.

Slow Climb/Ascent:

If your plane will not climb when both motors are running, it's possible that the wings warped a bit during shipping, causing the plane to dive. To fix this, you could try taking a hair dryer and very carefully heating the rear of the wingtips a bit, then twisting them upwards (at the back). Do not overdo it - only a little bit of heat and a little bit of twist is enough. This will cause the aircraft to climb assuming that the props are getting enough power. Note that the tips must be twisted equally or the plane will tend to turn in one direction.

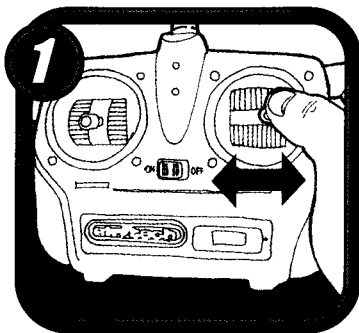
Unwanted Turns/Slow Turns:

A warp in your airframe / wing may also cause the airplane to veer in one direction. You can remove the warp by doing the following: Carefully heat the wings with a hair dryer being very careful not to heat the foam too much and cause it to melt. Keep the hairdryer about a foot away and keep it moving. After a short time the foam will become somewhat pliable and you will be able to gently twist the wing to remove any warping that might have been put into it during shipping. Note that you only need to give it a slight twist – don't overdo it or you'll end up with a plane that turns in the opposite direction from the original direction.

Hold the airplane by the wingtips with the nose pointed away from you.

- If the plane was veering to the left then (slightly) twist the right tip up and the left tip down.

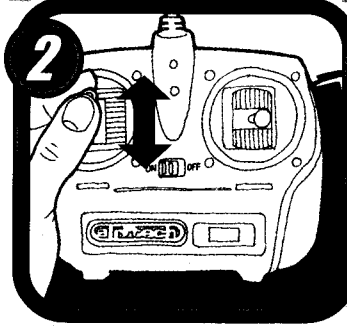
- If the plane was veering to the right then (slightly) twist the left tip up and the right tip down.



Left or Right Turn While the Plane is Flying Away from You.

-Pulse the right stick in the direction of the desired turn. Do not hold the stick without pulsing, or the plane will turn too sharply and stall.

Tip! The pulsing of the stick is the key to great control! Practice this tip the most!



Climb.

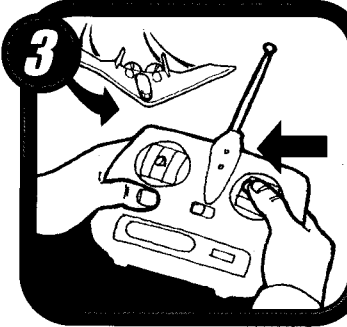
-Push the left stick forward all the way, the plane will start to climb

Glide/Descend.

-Release the left stick, the plane will glide at a gentle angle.

Flying.

-Keep the plane in front of you. Don't let it pass overhead, since this is very disorienting.



Control Reversal.

-When the plane is coming towards you it appears to turn in the "wrong" direction. But if you imagine yourself in the pilots seat, the model is in fact turning correctly. Try turning your back to the aircraft and looking over your shoulder, when it is coming towards you.

Landing.

-Turn the plane into the wind and aim it at the landing area.

-Allow the plane to gently descend by pulsing the power (left stick) on and off to achieve a gentle descent rate.

-If a turn is needed, use only gentle pulsing of the right-hand transmitter stick.

-Try to avoid turning the plane when it is within 10ft. of the ground.

-The plane will essentially land itself once you achieve a smooth descent rate.

-Just before touchdown give the plane a short burst of power to level it out and allow it to land at a flat angle.

CAUTION: When landing the plane be sure to land up-wind (into the wind) and aim for a soft, flat grassy area!

Flying Tips

- If you apply full throttle for too long, the plane may nose up too much and stall. To overcome this, back off the throttle when the plane gets to a greater than 30 degree nose-up angle. Let it glide for a moment then apply throttle again. If the nose goes too high and the plane stalls (stops flying and the nose drops sharply), do not hold the power on – release it immediately. If you hold the throttle on in this case, the plane will accelerate downwards since it is in a nose-down attitude and will dive into the ground. However, if you release the throttle, the plane will straighten out (assuming you have sufficient altitude) and you will regain control.

- If you have held a turn input for too long or the plane has been caught by a crosswind and has started to turn too sharply (into a spiral dive), immediately push the right-hand steering stick in the other direction to force the plane to turn the other way. Do NOT apply power to both motors with the left-hand stick – use the right-hand stick only until you regain control.

- Always try to keep the plane at a safe altitude to allow recovery altitude – 50 feet should be enough to give you and the plane time to react.



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INFORMATION

Replacement Parts.

If you need to, you can order replacement parts directly from us via telephone or email. Please call (416) 444-6873 or send an email to info@interactivetoy.com

Warranty

Interactive Toy Concepts guarantees your R/C plane to be free from manufacturing defects. This warranty does not cover any modifications or parts damaged by the owner. In no case will Interactive Toy Concepts' liability exceed the original cost of the kit. Interactive Toy Concepts reserves the right to change this warranty without notice. Interactive Toy Concepts assumes no liability over final assembly or for any damage resulting from the use of this product. If the buyer is not prepared to accept the liability associated with the use of the aircraft, he/she should return it in unused condition to the place of purchase.

We reserve the right to make improvements to the design of the airplane. Thus, your aircraft and charger may vary slightly from that depicted in the preceding photographs.

Battery Recycling & Disposal.

It may be illegal to dispose of the NiMH battery in your municipal waste. The battery pack contains a chemical known to the State of California to cause birth defects or other reproductive problems. Do not try to open the battery pack!

Battery Care Information.

- 1) Never allow the battery pack to become hot during charging -This will cause permanent irreversible damage. **Warm is OK -HOT IS NOT!**
- 2) Never leave a battery unattended while it is being charged.
- 3) Never leave a battery unattended in the presence of small children.
- 4) Charging time required for a full charge increases with the number of charge cycles due to the gradual draining of the chargers "AA" cells.
- 5) Never recharge a hot battery. Always allow it to cool before charging.
- 6) If you use an after-market charger, never charge the battery at a rate greater than 250mA.
- 7) If the flight battery is not completely discharged before recharging, the charge-time may be less than that of an "empty" battery. Again, do not allow the battery to get too hot!
- 8) If a day or more passes without charging the battery, or if you are unsure whether or not it is fully charged, discharge the battery, then fully recharge it.
- 9) Rechargeable batteries are to be removed from the toy before being charged (if removable).
- 10) Rechargeable batteries are only to be charged under adult supervision (if removable).
- 11) Do not attempt to recharge non-rechargeable battery.
- 12) Exhausted batteries must be removed from the charger after used.
- 13) Do not mix to use old and new batteries.
- 14) The supply terminal are not to be short-circuited.

Troubleshooting.

If you are experiencing any problems with your AirRage aircraft, visit our website. Click on the Customer Service Tab -Troubleshooting Tips. There you will find answers to many of your questions, supplied by our AirRage Flight Technicians.

FCC Note: USA only.

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. 2) This device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: 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 reasonable 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, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Industry Canada Notice: Canada only.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference. 2) This device must accept any interference received, including interference that may cause undesired operation.

This digital apparatus does not exceed the Class B limits for radio emissions from digital apparatus set out in the Radio Interference Regulations of Industry Canada

Field Strength and measurement distance: 27MHz - 78 dB uV/m at 3 meter. 49MHz - 78.2 dB uV/m at 3 meter.

Visit our website: www.interactivetoy.com to see

the complete line of AirRage R/C planes, Helicopters, Snowmobiles, Hotrods and indoor R/C Blimps!



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RETAIL STORE!**

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