TWISTER

MicroTwister **Ninja**

The world's most durable carbon fibre radio controlled helicopter

INSTRUCTION MANUAL

- Virtually no screws for ultra fast maintenance
- Carbon lightweight construction for ultra durability
- Flexible super strong wide track undercarriage
- Lipo cutout to prevent over discharging of battery in flight
- High strength, flexible main rotor blades
- Comfortable, compact infrared remote control transmitter
- 360° directional control, (forward/back/left/right/up/down)
- Super smooth and stable hovering
- 30 minute charge time direct from the transmitter
- Approximately 10 minutes flying time per charge

Please read the instructions carefully before use and retain for future reference.

IMPORTANT!
Radio controlled model
NOT A TOY!

This model must be operated according to the instructions.
May cause injury to persons or property if not used responsibly.
Unsuitable for children under 14 years.

SPECIFICATIONS

Fuselage length 180mm
Main rotor diameter..... 175mm
Weight.....19g
Operational range ..... about 10 meters
Charging time..... approx. 30 minutes
Flying time .....over 10 minutes
On board power.....3.7V LiPo battery

Required

Transmitter batteries .....6 x 1.5V AA batteries

SAFETY PRECAUTIONS

Please read all instructions carefully before using this model.

If any information in this manual is unclear, please contact your retail supplier for help.

DANGER-This product is for indoor use only.

DANGER-Do not use in direct sunlight or strong lighting as it may effect the infra red control system.

Please note especially the potential dangers associated with the rotating parts in this model:

DANGER-Wear protective eye wear when operating model helicopters!

DANGER-Do not wear loose clothing or ties!

DANGER-Keep well clear of rotating blades!

DANGER-Never fly near children or animals!

Always let the battery cool down before recharging.

Always recharge the battery after use, especially if it is going to be stored and not used for a while.

GUARANTEE/WARRANTY

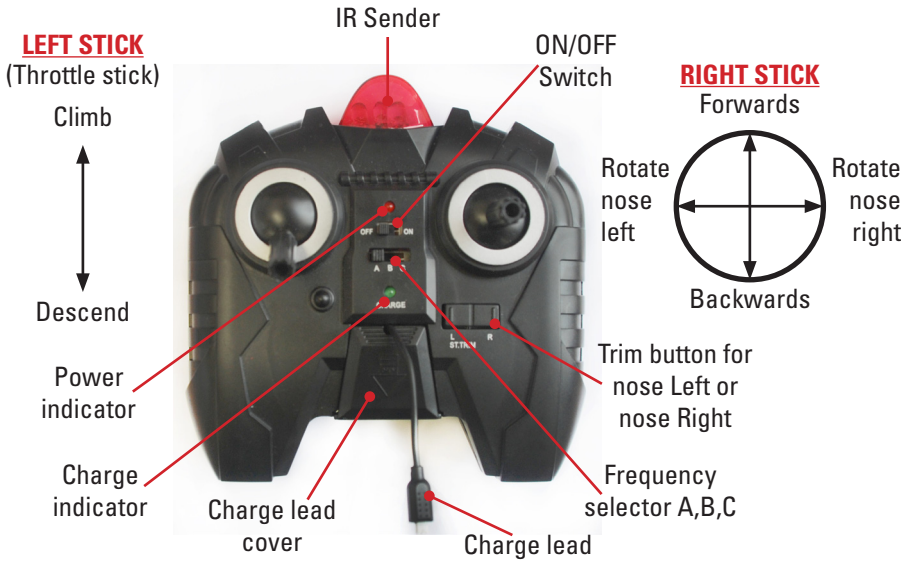
Crash damage is not covered by warranty.

J. Perkins Distribution Ltd. guarantee this product to be free of manufacturing and assembly defects for a period of one year from time of purchase. This does not affect your statutory rights. This warranty is not valid for any damage or subsequent damage arising as a result of a crash, misuse, modification or for damage or consequential damage arising as a result of failure to observe the procedures outlined in this manual. Operation of this model is carried out entirely at the risk of the operator. Please note that, whilst every effort is made to ensure the accuracy of instructions and material included with this product, mistakes can occur and J. Perkins Distribution Ltd nor it's distributors will be held liable for any loss or damage arising from the use of this model or for any loss or damage arising from omissions or inaccuracies in the associated instructions or materials included with this product.

We reserve the right to modify the design of this product, contents and manuals without prior notification.

© 2011 J Perkins Distribution Ltd, Lenham, Kent, UK ME17 2DL.
www.jperkinsdistribution.co.uk
All rights reserved. E&OE.

TRANSMITTER LAYOUT - MODE 2



INSTALL THE BATTERIES IN THE TRANSMITTER

Remove the screw anticlockwise, then depress the tabs to remove the battery cover.

Install six good quality AA alkaline batteries, (purchased separately).
Make sure the "+" and "-" end of the batteries are correct as shown above.

IMPORTANT: To achieve the maximum flight times it is essential to use good quality 1.5V alkaline AA batteries in your transmitter.

Cheap batteries may look like a good option, but with poor quality batteries:

- The helicopter may not charge at all
- The helicopter will take longer to charge
- Your flight times will be less
- The number of recharges will be minimal

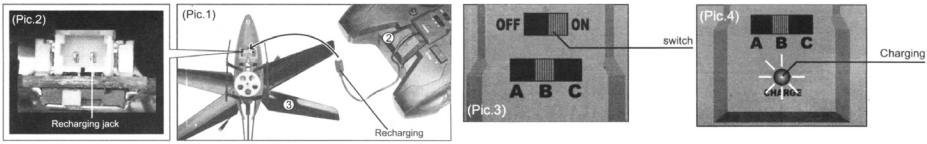
HELICOPTER CHARGING INSTRUCTIONS

Note: Charge the onboard battery before using your Ninja for the first time.

1. Make sure the helicopter and transmitter are both turned off
2. Pull out the charging lead from under the cover on the front of the transmitter. (Pic.1)
3. Carefully insert the plug into the bottom of the helicopter ensuring it is the correct way around. (Pic.2) You should not need to force it.

FORCING THE CHARGE PLUG IN THE WRONG WAY AROUND MAY DAMAGE THE FLIGHT BATTERY OR ELECTRONICS.

4. Set the ON/OFF Switch of the remote control to ON. (Pic.3)
5. The charge indicator on the transmitter will glow GREEN. (Pic.4)
6. The battery is charged when the green charge indicator stops glowing.
7. Set the ON/OFF Switch of the transmitter to OFF.
8. Disconnect the charge lead and stow it away under its cover.



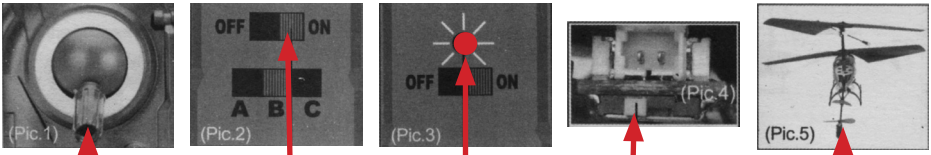
PREPARING FOR FLIGHT

TURNING ON

1. Before setting the ON/OFF switch of the transmitter to ON, make sure the throttle stick is down, in its lowest position, that is towards you. (Pic.1)
2. Set the ON/OFF switch of the transmitter to ON. (Pic.2)

Note: Always turn your transmitter ON first, then your helicopter.

3. The LED above the ON/OFF switch will glow RED. (Pic.3)
4. Set the ON/OFF switch of the helicopter to ON. (Pic.4) The LED spot light on the nose will glow white and the RED LED will initially be solid red, then will begin flashing 3 times in quick succession. When this happens the helicopter is ready to fly.
5. Place the helicopter on the ground with its tail facing towards you. (Pic.5)
6. Make sure you have a clear indoor space of at least 3 metres wide and two metres high when you are learning to fly.

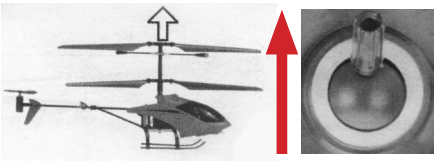


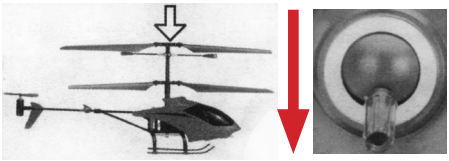
Throttle stick down | ON/OFF switch to ON | LED will glow RED | Heli ON/OFF switch to ON | Heli tail towards you

HELICOPTER FLYING INSTRUCTIONS

TAKING OFF

1. Gently push the throttle stick away from you. The main rotor blades will start to spin.
2. Keep advancing the throttle stick until the helicopter leaves the ground.
3. To begin with, move the throttle stick up and down in very small movements to find the correct amount of throttle to keep the helicopter at a constant height.

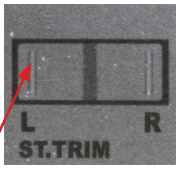




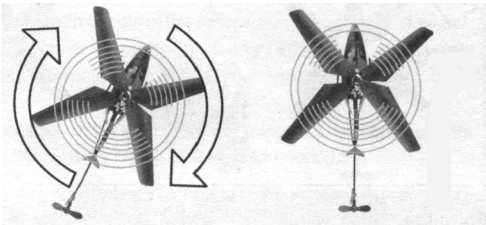
4. If you get into trouble or loose orientation, simply move the throttle stick to its lowest position and the helicopter rotors will stop spinning and the helicopter will land. This is a much better option than allowing the helicopter to crash into something with the rotor blades spinning.

ADJUSTING THE LEFT-RIGHT ROTATION TRIM

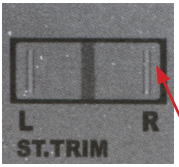
1. Ideally the helicopter needs to be trimmed so that when the helicopter is in a hover, the nose of the helicopter does not move to the left or the right.
2. If the nose moves to the right, press the L. trim button several times until it flies straight.



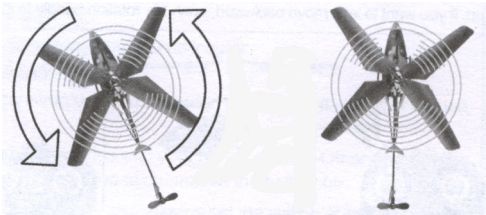
Press left trim until heli flies straight



3. If the nose moves to the left, press the R. trim button several times until it flies straight.



Press right trim until heli flies straight

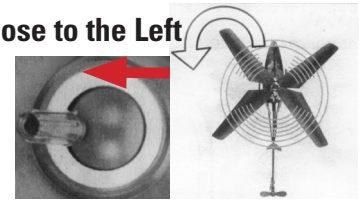


4. Although the trim button can be used to reduce the amount of rotation in either direction during hover, it cannot completely prevent it. So during flight it may be necessary to use the Left/Right rotation stick to adjust it.

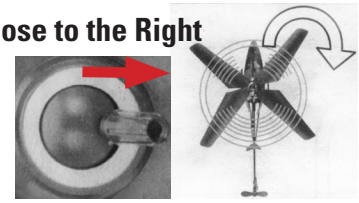
LEFT-RIGHT ROTATION

1. Now that you have the helicopter hovering you can learn to move it around the room by using the stick on the opposite side of the transmitter to the throttle stick.
2. To make the nose turn to the left, move the stick to the left. Centre the stick to stop the helicopter rotating to the left.
3. To make the nose turn to the right, move the stick to the right. Centre the stick to stop the helicopter turning to the right.

Rotate nose to the Left

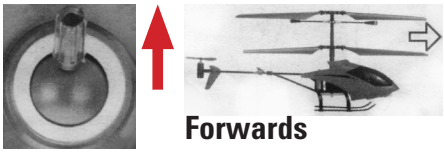


Rotate nose to the Right

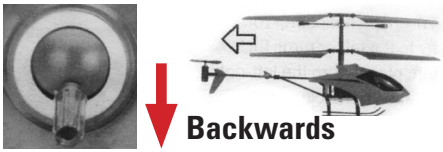


FORWARDS AND BACKWARDS

1. Now using the stick on the opposite side of the transmitter to the throttle stick, move the stick up to make the helicopter move forwards. Centre the stick to stop the helicopter moving forwards.
2. Move the stick down, backwards, or towards you to make the helicopter move backwards. Centre the stick to stop the helicopter moving backwards.



Forwards



Backwards

3. As you get more confident, you can combine movements at the same time to fly circles, figure eights, climbing and descending circles, nose in flying and precision landings on objects. The possibilities are endless. ENJOY!

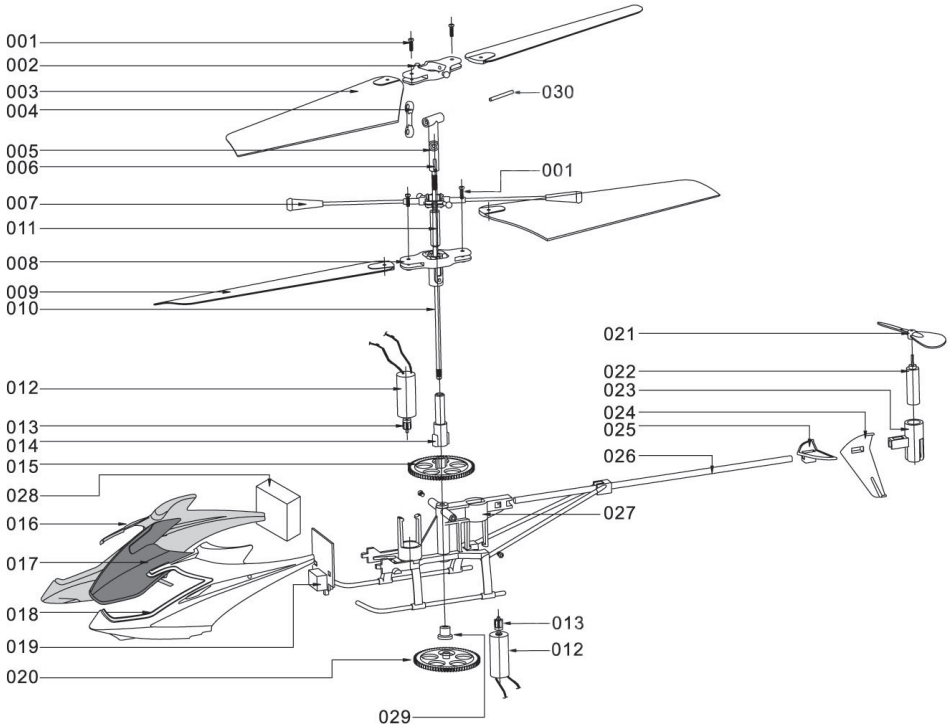
PARTS LIST

JP No	Description	Diagram Number
6605300	Rotor blade set (2A, 2B)	003, 009,
6605310	Rotor head and shaft set complete	001, 002, 004, 005, 006, 007, 008, 010, 011, 014, 030
6605315	Gear set (2 main, 2 pinion)	013, 015, 020
6605320	Tail rotor blades (4 pieces)	021
6605330	Tail boom assembly	022, 023, 024, 025, 026
6605340	Main frame assembly complete	027, 029
6605345	Canopy (Black)	016, 017, 018
6605350	Canopy (Red)	016, 017, 018
6605355	Motor Set (2)	012

EXPLODED DIAGRAM

Diagram Number	Part Description	Quantity
001	Screw 2.0x4.0mm	4
002	Upper blade grip	1
003	Main Rotor Blades B	2
004	Flybar link	1
005	Flybar pin	1
006	Rotor hub	1
007	Flybar set	1
008	Lower blade grip	1
009	Main Rotor Blades A	2
010	Main shaft (inner)	1
011	Upper spacer collar	1
012	Main motor	2
013	Motor gear	2
014	Lower drive collar	1
015	Lower blade main gear	1

Diagram Number	Part Description	Quantity
016	Canopy RHS	1
017	Canopy window	1
018	Canopy LHS	1
019	Receiver	1
020	Upper blade main gear	1
021	Tail rotor blade	1
022	Tail motor	1
023	Tail motor mount	1
024	Vertical fin	1
025	Horizontal fin	1
026	Tail Boom	1
027	Main frame	1
028	3.7V LiPo battery	1
029	Lower bush	1
030	Rotor hub pin	1



European agents: J Perkins Distribution,
Lenham, England

www.jperkinsdistribution.co.uk