Warning! This model is not a toy. It is designed for maximum performance. Please seek advice if one is not familiar with this kind of engine powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.
BEFORE YOU BEGIN

1. Read through the manual before you begin, so you will have an overall idea of what to do.

2. Check all parts. If you find any defective or missing parts contact your local dealer. Please DRY FIT and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.

3. Symbols used throughout this instruction manual comprise of the following:

- **Apply epoxy glue.**
- **Apply instant glue** (C.A.glue, super glue.)
- **Apply threadlocker**
- **Must be purchased separately!**
- **Assemble left and right sides the same way.**
- **Ensure smooth non-binding movement while assembling.**
- **Peel off shaded portion covering film.**
- **Cut off shaded portion.**
- **Drill holes with the specified diameter (here: 3mm).**
- **Pierce the shaded portion covering film.**
- **Pay close attention here!**
- **Warning!** Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair
2. SCREW PB2x20mm -- 4 pcs
   CLEVIS PL4112103 -- 2 pcs
   STRAPER PL4112102 -- 2 pcs
   FUEL TUBE Ø6x5mm -- 4 pcs
   HORN (L) PL4113101 -- 2 sets
   SCREW PWA2x8mm -- 8 pcs
   SERVO MOUNTING PANEL PL5310000 -- 1 pair
   PUSHROD Ø1.8x90mm w/ Threads (For Aileron) -- 2 pcs
3. WING JOINER 9.5x28x120mm -- 1 pc.
4. STABILIZER & ELEVATOR -- 1 set
   FUSELAGE -- 1 pc.
5. TAIL LANDING GEAR PL7100001 -- 1 set
   COLLAR Ø2.1mm w/ set screw -- 1 set
   WHEEL Ø25mm PL311250 -- 1 pc.
   SCREW PA3x12mm -- 2 pcs
6. VERTICAL FIN & RUDDER -- 1 set
7. SCREW PB2x12mm -- 4 pcs
   CLEVIS PL4112103 -- 1 pc
   HORN (L) PL4113101 -- 2 sets
   FUEL TUBE Ø6x5mm -- 2 pcs
   PUSHROD Ø1.8x475mm w/ Threads (For Elevator) -- 2 pcs
8. SCREW PB2x12mm -- 2 pcs
   CLEVIS PL4112103 -- 1 pc
   HORN (L) PL4113101 -- 1 set
   FUEL TUBE Ø6x5mm -- 1 pc.
   PUSHROD Ø1.8x620mm w/ Threads (For Rudder) -- 1 pc.
9. MAIN LANDING GEAR -- 1 pair
   WHEEL PANTS -- 1 pair
   SCREW KA2.3x8mm -- 4 pcs
   SCREW PM4x40mm -- 2 pcs
   SOCKET HEAD SCREW M3x14mm -- 6 pcs
   WASHER d3xD7mm -- 6 pcs
   WASHER d4xD9mm -- 4 pcs
   M4 NUT -- 2 pcs
   WHEEL Ø58mm PL3111580 -- 2 pcs
   COLLAR Ø4.1mm w/ set screw -- 4 sets
   ALUMINUM PLATE 1mm -- 1 pair
   QUICK RELEASE NYLON RIVET PL1208042 -- 4 pcs
10. ENGINE MOUNT PL5111050 -- 1 set
    SOCKET HEAD SCREW M4x25mm -- 4 pcs
    WASHER d4xD9mm -- 4 pcs
11. FUEL TANK 320cc PL1111320 -- 1 set
    DOUBLE SIDE TAPE 40x100mm -- 1 pc.
    CABLE TIE 1.5x4x100mm -- 1 pc.
12. SOCKET HEAD SCREW M3.5x30mm -- 4 pcs
    WASHER d3.5xD8mm -- 8 pcs
    M3.5 NUT -- 8 pcs
    THROTTLE PUSHWIRE Ø1.2x460mm -- 1 set
    PLASTIC TUBE d2xD3x300mm -- 1 pc.
13. LINKAGE CONNECTOR Ø2.1mm HW7111060 -- 1 set
14. STRAPER PL4112102 -- 2 pcs
    FUEL TUBE Ø6x5mm -- 2 pcs
    PUSHROD Ø1.8x65mm (For Elevator) -- 1 pc.
    PUSHROD CONNECTOR PL4410010 (For Elevator) -- 1 set
    SPONGE 70x80x114mm MS7113080 -- 1 pc.
15. SCREW HM4x25mm -- 2 pcs
    WASHER d4xD12mm -- 2 pcs
    PLYWOOD 2x30x114mm (Wing Protection) -- 1 pc.
16. CANOPY -- 1 pc.
    SCREW PWA2.3x8mm -- 4 pcs
    SILICON GROMMET d1.5xD6.5mm PL1265035 -- 4 pcs
17. COWLING -- 1 pc.
    TRANSPARENT 3D TEMPLATE -- 1 pc.
    SCREW PWA2.6x12mm -- 4 pcs
    SILICON GROMMET d1.5xD6.5mm PL1265035 -- 4 pcs
    SPINNER Ø70mm PL2111070 -- 1 set
18. DECALS: A282DEC -- 1 set

COVERING:--
TOUGHLON STL 100 WHITE
LIGHTEX SGX 203 LIGHT GRAY
LIGHTEX SGX 550 PEARL BLUE
1 Main Wing

- Apply instant type CA glue to both sides of each hinge.

Bottom View

PB2x20mm Screw

PWA2x8mm Screw

2 Aileron Servo

- Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

Bottom View

Straper
Fuel Tube Ø6x5mm

PB2x20mm
Clevis
Fuel Tube Ø6x5mm
Pushrod Ø1.8x90mm

TWM PL8210010
CLEVIS WRENCH

L/R

Completed
3 Main Wing

- Please dry fit wing joiner into left and right wing to make sure they fit with the proper dihedral angle, mark the wing joiner if necessary. Apply epoxy glue to both sides of all surfaces in contact. Use a stick to apply the glue to inner side of wing joiner sleeve, and apply the glue to wing joiner before putting them together. Wing joiner not glued properly will lead to wing failure and plane crash.

![Wing Joiner](image)

- Completed

4 Stabilizer & Elevator

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible. *Also refer to step 18 Wing Setting.

![Stabilizer & Elevator](image)

- Apply instant type CA glue to both sides of each hinge.

- Completed
5 Tail Landing Gear

PA3x12mm Screw
- 2
2.1mm Collar
- 1

6 Vertical Fin & Rudder

Apply instant type CA glue to both sides of each hinge.

7 Elevator Pushrod

Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.
8 Rudder Pushrod

- Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

 PB2x12mm Screw 2

 ≈75mm

 ≈36mm

 Bottom View

9 Main Landing Gear

 PM4x40mm Screw 2
 KA2.3x8mm Screw 4
 M3x14mm Socket Head Screw 6
 M4 Nut 2
 d4xD9mm Washer 4
 d3xD7mm Washer 6
 4.1mm Wheel Collar 4
 Quick Release Nylon Rivet d2xD8mm 4

 PM4x40mm

 d4xD9mm Washer 3mm Set Screw 3mm Set Screw 4.1mm Collar 4.1mm Collar 1mm Plate M4 Nut

 Wheel Pant

 Quick Release Nylon Rivet KA2.3x8mm

 Wheel Ø58mm

 Wheel Collar

 Wheel Collar

 M4 Nut

 Completed

 Front

 d3xD7mm Washer M3x14mm

 Completed
10 Engine Mount

M4x25mm Socket Head Screw 4
D4xD9mm Washer 4

Engine Mount, PL5111050

Blind nuts are off-centered to keep the spinner at the fuselage axis.

11 Fuel Tank

Fuel Tank 320cc

Cable Tie 1.5x4x400mm

Double side Tape 40x100mm

Fuel Tank 320cc

UP
12 Engine

M3.5x30mm
Socket Head Screw
M3.5 Nut
4
8
d3.5xD8mm Washer
8

M3.5 Nut
Dotted Line
Throttle Pushrod Ø1.2x460mm
N.I.
Plastic Tube d2xD3x300mm

Installed Engine Position

115 mm
4.53 in.
**13 Servo Set**

- 3x3mm Set Screw 1
- Linkage Connector 1
- M2 Nut 1
- 2mm Washer 2

Included with the radio set.

Please refer to the attached sheet for linkage connector installation.

**14 Radio Equipment**

- Install and arrange the servos as shown in the diagram.

Front View:

- Pushrod Connector
- Elevator Servo

Diagram:

- Throttle Pushrod Ø1.2x460mm
- Elevator Pushrod Ø1.8x65mm
- Rudder Servo
- Fuel Tube Ø6x5mm
- Elevator Pushrod
- Throttle Servo
- Receiver
- Sponge
- Battery

Completed
15 Main Wing

- Materials:
  - HM4x25mm Screw (2)
  - d4xD12mm Washer (2)
  - Plywood (2x30x114mm)
  - HM4x25mm Socket Head Screw
  - d4xD12mm Washer

- Assembly:
  - First insert the grommet to the canopy then apply screw.

16 Cockpit

- Materials:
  - PWA2.3x8mm Screw (4)
  - d1.5x6.5mm Silicon Grommet (4)

- Assembly:
  - First insert the grommet to the canopy then apply screw.
17 Cowling & Spinner

- Please refer to the attached sheet for usage of the transparent 3D template. First insert the grommet to the cowling then apply screw.

18 Wing Setting

- Adjust the wing and fuselage configuration as shown in the diagrams.
19 Control Throws

- Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.

![Diagram of control throws]

20 C.G.

- The ideal C.G. position is 85mm (3.35 in) behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. before flying.

![Diagram of C.G. position]

Warning!

Important Safety Precautions

- First time flyer should never fly by himself/herself. Assistance from experienced flyer is absolutely necessary.

- Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.

- **NEMESIS 52** is specially designed to be powered by 4C 0.52-0.56 engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause structural damage and injuries.

- Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller.

- If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering. Don’t use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.

- Check and re-tighten up all factory assembled screws, use thread locker if necessary.
After fastening the round nut, make sure that the linkage connector can rotate freely.

Drill 2mm hole at servo horn.

Insert linkage connector into servo horn.

Make sure shoulder of screw is cleared from servo horn. Add washer to reduce play if necessary.

Shoulder

Tighten up the round nut against the shoulder. Apply CA or permanent thread locker.

After fastening the round nut, make sure that the linkage connector can rotate freely.

Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K, Bennett Drive, Livermore, CA 94551 USA.

1. Name:______________________________________________
2. Address:____________________________________________
3. Phone #:____________________ E-mail:__________________
4. Model:______________________________________________
   Wing QC#__________ Fuselage QC# _______________________
   (QC numbers are stamped on wing and fuselage)
5. Date of Purchase:_____________________________________
6. Store Name: _________________________________________

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

1. Simply cut the transparent 3D template to fit your engine and exhaust pipe, then slide onto the actual cowling and use as template to mark the openings required for final cutting.

2. 

3. 

4. 

A282PO25351012