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.
34% VELOX REV II

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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 thread locker
- 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. SERVO MOUNTING PANEL (For Aileron) -- 2 pairs
   HEAVY DUTY CLEVIS PL4112200 -- 8 sets
   SCREW PM4x60mm -- 4 pcs
   SCREW PWA2x8mm -- 16 pcs
   M4 NYLON INSERT LOCK NUT -- 4 pcs
   HEAVY DUTY HORN BRACKET PL4112400 -- 4 sets
   HEAVY DUTY SERVO HORN PL4120300 -- 4 sets
   PUSHROD M3x55x83mm w/ Threads (For Aileron) -- 4 pcs
   SWIVEL CLEVIS HORN FAIRING PL4610010 -- 4 sets

3. Fuselage -- 1 pc.
   STABILIZER & ELEVATOR -- 1 set
   SCREW PA3x12mm -- 2 pcs
   WASHER Ø3x7mm -- 2 pcs
   STABILIZER TUBE D16x50mm -- 1 pc.

4. VERTICAL FIN & RUDDER -- 1 set

5. TAIL GEAR ASSEMBLY (PL3410022) -- 1 set
   SCREW PA3.5x16mm -- 3 pcs
   SCREW PWA2.5x12mm -- 3 pcs

6. MAIN LANDING GEAR -- 1 set
   AXLE SHAFT Ø5x50mm -- 2 pcs
   SCREW PM3x15mm -- 4 pcs
   SOCKET HEAD SCREW M6x20mm -- 4 pcs
   M8 NYLON INSERT LOCK NUT -- 2 pcs
   WASHER Ø5x7mm -- 4 pcs
   COLLAR Ø5.2mm w/ set screw -- 4 sets
   WHEEL Ø102mm -- 2 pcs
   WHEEL PANTS -- 1 pair

7. SERVO MOUNTING PANEL (For Rudder) -- 1 pair
   HEAVY DUTY CLEVIS PL4112200 -- 8 sets
   HEAVY DUTY HORN BRACKET PL4112400 -- 2 sets
   HEAVY DUTY SERVO HORN PL4120300 -- 1 set
   HEAVY DUTY SERVO HORN PL4120800BB -- 1 set
   PUSHROD M3x5x137mm w/ Threads (For Rudder) -- 2 pcs
   SWIVEL CLEVIS HORN FAIRING PL4610020 -- 1 set
   SCREW M4x128mm -- 1 pc.
   SCREW M3x35mm -- 2 pcs
   M4 NYLON INSERT LOCK NUT -- 2 pcs
   EYE SCREW M2.5x8x25mm -- 4 pcs
   WIRE Ø1x1100mm (For Rudder) -- 2 pcs
   COPPER TUBE d2.5x2.8x4mm -- 4 pcs
   COPPER CLEVIS HORN SUPPORT -- 1 set
   SCREW PM2.5x35mm -- 1 pc.
   M2.5 NYLON INSERT LOCK NUT -- 1 pc.
   SCREW PWA2x8mm -- 8 pcs

8. SERVO MOUNTING PANEL (For Elevator) -- 1 pair
   HEAVY DUTY CLEVIS PL4112200 -- 4 sets
   HEAVY DUTY HORN BRACKET PL4112400 -- 2 sets
   HEAVY DUTY SERVO HORN PL4120300 -- 2 sets
   PUSHROD M3x40mm w/ Threads (For Elevator) -- 2 pcs
   SWIVEL CLEVIS HORN FAIRING PL4610010 -- 2 sets
   SCREW PWA6x8mm -- 4 pcs
   M4 NYLON INSERT LOCK NUT -- 2 pcs
   SCREW PWA2x8mm -- 8 pcs

9. FUEL TANK 1500cc (PL1121500G-gasoline) -- 1 set
   CABLE TIE (For Fuel Tank) -- 2 pcs

10. BLIND NUT M6 -- 4 pcs
    WASHER Ø6x15mm -- 4 pcs
    SOCKET HEAD SCREW M6x30mm -- 4 pcs
    SCREW PWA2x12mm -- 4 pcs
    SCREW PWA2.5x12mm -- 4 pcs
    SCREW PWA1.5x12mm -- 4 pcs
    M5 NYLON INSERT LOCK NUT -- 2 pcs
    M5 NYLON INSERT LOCK NUT -- 2 pcs
    WIRE Ø1x450mm -- 1 pc.
    PLASTIC TUBE d2x3x350mm -- 1 pc.
    LINKAGE CONNECTOR Ø2.1mm -- 1 set

11. SPONGE 10x80x200mm -- 2 pcs

12. WING TUBE D38x1064mm -- 1 pc.
    SCREW PA3x12mm -- 1 pc.
    SCREW PA3x35mm -- 1 pc.
    WASHER Ø3x7mm -- 2 pcs

13. CANOPY -- 1 pc.
    SCREW PA3x18mm -- 4 pcs
    WASHER Ø3x7mm -- 2 pcs
    SILICON GROMMET D1.5xD6.5mm -- 7 pcs
    SILICON GROMMET d2.5xD8.5mm -- 6 pcs
    SPINNER (with. aluminum. back plate) Ø102mm -- 1 set

14. COWLNG -- 1 pc.
    TRANSPARENT 3D TEMPLATE -- 1 pc.
    SCREW PA3x12mm -- 6 pcs
    WASHER D3x7mm -- 6 pcs
    SILICON GROMMET d2.5xD8.5mm -- 6 pcs
    SPINNER (with. aluminum. back plate) Ø102mm -- 1 set

15. DECALS A181DEC -- 1 set

COVERING:
- TOUGHOLON STL100 WHITE
- TOUGHOLON STL 300 BLUE
- TOUGHOLON STL 312 BRIGHT RED
- TOUGHOLON STL 331 CUB YELLOW
1 Main Wing

- Aileron Servo Lead

Bottom View

2 Aileron Servos

- PM4x60mm Screw: 4
- M4 Nylon Insert Lock Nut: 4
- PWA2x8mm Screw: 16

M2x10mm Socket Head Screw

Heavy Duty Clevis

M2 Nylon Insert Lock Nut

Heavy Duty Horn Bracket

M2x10mm Socket Head Screw

M4 Nylon Insert Lock Nut

Pushrod M3xD5x83mm

Pushrod M3xD5x83mm

PWA2x8mm

Bottom View

P.3
3 Stabilizer & Elevator

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

![Stabilizer & Elevator Diagram]

4 Vertical Fin & Rudder

Apply AB glue to both sides of each hinge.

![Vertical Fin & Rudder Diagram]
### Tail Landing Gear

- **PA3.5x16mm Screw**
- **PWA2.5x12mm Screw**

- **Bottom View**

### Main Landing Gear

- **Ø5x50mm Axle Shaft**
- **PM3x15mm Screw**
- **M5x20mm Socket Head Screw**
- **M8 Nylon Insert Lock Nut**
- **d5xD12mm Washer**
- **d3xD7mm Washer**
- **Ø5.2mm Wheel Collar**

- **Completed**

- **Bottom View**
7 Rudder Pushrod / Pushwire

A. Pushrod

1. M4x128mm Screw
   1. M4 Nylon Insert Lock Nut
   2. PM2.5x35mm Screw
   3. M2.5 Nylon Insert Lock Nut
   4. PWA2x8mm Screw

2. M2x10mm Socket Head Screw
   1. Heavy Duty Clevis

B. Pushwire

1. M4x128mm Screw
   1. PA1.7x8mm
   2. M4 Nylon Insert Lock Nut

2. PM2.5x35mm Screw
   1. M2.5 Nylon Insert Lock Nut
   2. Heavy Duty Horn Bracket
   3. M2x10mm
   4. Heavy Duty Clevis

Bottom View

Press down the center 1/3 portion

Heavy Duty Clevis

Bottom View

Rudder Servo

Heavy Duty Clevis

PWA2x8mm

PL4120800BB

M3x35mm

PL4120600
8 Elevator Pushrod

- **PM4x60mm Screw** (x4)
- **M4 Nylon Insert Lock Nut** (x4)
- **PWA2x8mm Screw** (x8)

![Elevator Pushrod Diagram]

- **M2x10mm Socket Head Screw**
- **M2 Nylon Insert Lock Nut**

![Bottom View Diagram]

9 Fuel Tank

- **Cable Tie**
- **Fuel Tank 1500cc**
10 Engine

- M6x50mm Socket Head Screw: 4
- d6xD15mm Washer: 4
- PWA2x12mm Screw: 4
- PWA2.6x12mm Screw: 4
- M6 Blind Nut: 4

Bottom View

- M5 Blind Nut
- M6x50mm Socket Head Screw
- d6xD15mm Washer
- N.I.

- Linkage Connector Ø2.1mm

- PWA2.6x12mm
- Plywood 3x106x156mm

Bottom View

- PWA2x12mm
- Plywood 2x106x155mm
- 194mm: 7.60 in.

11 Radio Equipment

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

Front

- N.I. Throttle Servo
- Throttle Pushrod Ø1.2x450mm
- Sponge
- N.I. Receiver
- N.I. Battery

P.8
Step 1. Insert the aluminum wing tube with the pre-drilled hole end into the right wing. Align the lines marked at the wing root and wing tube, then apply the PM3x35mm machine screw through the pre-drilled hole on top of the wing. (please confirm the alignment of the hole by putting a 2.5mm diameter rod through the pre-drilled wing hole before applying the screw) The hole on the wing tube is pre-threaded, do not over tighten the PM3 screw, the set up is for future removal of the wing.

Step 2. Install the right wing to the fuselage by inserting the wing tube (now attached to the right wing) through the fuselage, then install the left wing.

Step 3. Make sure the wings are resting against the fuselage tightly. Locate the pre-drilled 2.5mm hole at top of left wing, and drill along with 2.5mm drill bit until it passes through the wing tube. Apply the PA3x35mm self-tapping screw.

Note: It is recommended that the wing tube stays with the left wing. Removal of the wings could be achieved by removing the right wing machine screw, the right wing then the left wing with wing tube. If removal of wing tube from left wing is also required, it is recommended that instead of applying self-tapping screw in step 3, you pre-tap with M3 thread cutter and apply M3 machine screw.

Main Wing Setting
13 Canopy

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

- Please refer to the attached sheet for usage of the transparent 3D template.

14 Cowling & Spinner

- First insert the grommet to the cowling then apply screw.

- Please refer to the attached sheet for usage of the transparent 3D template.
Wing Setting

Adjust the wing and fuselage configuration as shown in the diagrams.

A=A'  B=B'  C=C'

A=A'  B=B'  C=C'
16 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.

- Elevator: 45mm, 45mm
- Rudder: 80mm, 80mm
- Ailerons: 30mm, 30mm

17 C.G.

The ideal C.G. position is 190mm (7.5 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.

190mm
7.5 in

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.

# 34% VELOX REV II is specially designed to be powered by 100 c.c. gasoline 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.

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, 2403 Research Drive, Livermore, CA 94550 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. 
2. 
3. 
4. 

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.
Ducted Fan

Warbirds

Scale

Sports

Trainer

Glider

Boat

Accessories

Covering
(Lightex/Toughlon)