1.20 cu.in. displacement 2-cycle
Radio required: 4 channels, 5 servos airplane radio

Specifications

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>69.0in / 1745mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>845 sq in / 54.5 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>10.0 lbs / 4546g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>61.4 in / 1560mm</td>
</tr>
</tbody>
</table>

*Specifications are subject to change without notice.*

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.

THE WORLD MODELS
MANUFACTURING CO., LTD.
FACTORY PRE-FABRICATED
ALMOST-READY-TO-FLY (ARF) SERIES
MADE IN CHINA
www.theworldmodels.com
EXTRA 300 - 120S
INDEX

BEFORE YOU BEGIN ---------------------------------------- P. 1
PARTS LIST ----------------------------------------------- P. 2
ASSEMBLY ----------------------------------------------- P. 3 - 11
SAFETY PRECAUTIONS ------------------------------------ P. 11

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 Epoxi 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 be difficult to extend to the good parts that are good before gluing to defective parts during assembly.

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

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

1. FUSELAGE – 1 pc
2. MAIN WING – 1 pair
3. STABILIZER & ELEVATOR – 1 set
4. VERTICAL FIN & RUDDER – 1 set
5. CANOPY – 1 pc
6. PILOT (#PC00102) – 1 pc
7. COWLNG – 1 pc:  
   TRANSPARENT DUMMY COWLING – 1 pc
8. SPINNER Ø76mm – 1 pc
9. ENGINE MOUNT PL5000-070 – 1 set
10. FUEL TANK 450cc – 1 set
11. SPONGE 10x80x200mm (For Radio Equipment) – 2 pcs
12. MAIN LANDING GEAR (4x45x560mm) – 1 pc
13. TAIL LANDING GEAR – 1 set
14. MAIN WHEEL COVER – 1 pair
15. MAIN WHEEL Ø76mm – 2 pcs
16. TAIL WHEEL Ø30mm – 1 pc
17. PUSHROD: –
   WOODEN ROD Ø8x550mm (For Elevator & Rudder Servo) – 2 pcs  
   METAL ROD Ø2x145mm (For Elevator & Rudder Servo) – 2 pcs  
   METAL ROD Ø2x150mm w/Threads (For Elevator & Rudder Servo) – 2 pcs  
   METAL ROD Ø2x250mm w/Threads (For Elevator & Rudder Servo) – 2 pcs
18. THROTTLE PUSHWIRE Ø1.2x350mm  
   with Plastic tube Ø2x200mm – 1 set
19. WOODEN PARTS: –
   BALS 8x10x211mm (For Aileron Servo) – 4 pcs  
   COCKPIT – 1 set
20. PLASTIC PARTS: –
   Clevis – 5 pcs  
   COLLAR 5.1mm – 4 pcs  
   FIBER GLASS – 2 pcs  
   STRAPER – 4 pcs  
   TRI-HORN 3x9mm(L) – 2 sets  
   TRI-HORN 3x14mm(L) – 3 sets
21. METAL PARTS: –
   ADJUSTER 2.1mm – 1 set  
   COLLAR 2.1mm w/set screw – 1 set  
   COLLAR 5.1mm w/set screw – 2 sets  
   NUT 4mm – 6 pcs  
   NUT 5mm – 2 pcs  
   SCREW PA3x8mm – 6 pcs  
   SCREW PA3x10mm – 2 pcs  
   SCREW PM2x16mm – 3 pcs  
   SCREW PM2x20mm – 12 pcs  
   SCREW PM4x25mm – 6 pcs  
   SCREW PM4x30mm – 4 pcs  
   SCREW PM5x45mm – 2 pcs  
   SCREW PM6x35mm – 2 pcs  
   SCREW PH2.6x12mm – 8 pcs  
   SCREW PH2.3x8mm – 4 pcs  
   SCREW PH2.3x12mm – 10 pcs  
   WASHER 4mm – 10 pcs  
   WASHER 5mm – 2 pcs  
   WASHER Ø3x27mm – 4 pcs
22. FUEL TUBE Ø6x5mm – 9 pcs  
   HEAT-SHRINK TUBE Ø6x40mm – 4 pcs
23. FUSELAGE STICKER & LOGO – 1 set  
   P/N:ST200 005
24. COVERED WITH HAND IRON-ON COVERING FILM – 2 pcs
1 Main Wing

- Peel off sanded portion covering film

2 Main Wing

- Please apply glue to all surfaces of wing joiner

- Reinforced with Fiber glass on both sides (Glued by epoxy)

3 Aileron Servo

- PWA2.3X12mm Screw: 8

- PWA2.3X12mm

- Balsa Wood: 8x18x21mm

- Aileron Servo Cover: 2x70x90mm
4 Aileron Servo

PM2 x 20mm Screw

Clevis
Fuel Tube Ø6x5mm
Tri-horn 3x8mm

Straper
Fuel Tube Ø6x5mm

5 Stabilizer

Step 1

Step 2

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.
6 Vertical Fin/Rudder

PA3 x 8mm Screw
3 x 3mm Set Screw
2.1mm Collar

7 Fuel Tank

PWA2.3x 12mm Screw
Fuel Tank 450cc

Install Plywood 3x15x145mm
(For fixing fuel tank)

Completed
8 Engine Mount

PM4 x 25mm Screw 4
4mm Washer 4

Engine Mount PL5111-070

PM4 x 25mm

4mm

9 Engine

PM4 x 30mm Screw 4
4mm Washer 4
4mm Nut 8

Install Engine position

Spinner Ø76mm
Fire Wall

150mm 5.9 in.

Throttle Pushwire w/plastic tube 2x3x200mm

PM4 x 30mm

10 Cowling

PWA2.6X 12mm Screw 8

Trim the cowling so it will match your engine

PWA2.6X 12mm
11 Rudder Pushrod

- Straper Ø2x145mm
- Heat-shrink Tube Ø6x40mm
- Fuel Tube Ø6x5mm
- Be careful not to scorch thr heat-shrink tube!

N.I. Rudder Servo
Completed

12 Elevator Pushrod

- Straper Ø2x145mm
- Heat-shrink Tube Ø6x40mm
- Fuel Tube Ø6x5mm
- Be careful not to scorch thr heat-shrink tube!

N.I. Elevator Servo
Completed

13 Servo Set

- Adjuster 3 X 3mm Set Screw 1
- Linkage Connector 1
- 2mm Nut 1
- 2mm Washer 2
- Throttle Pushwire Ø1.2x350mm
- Plastic Tube d2xØ3x200mm
- N.I. Included with the radio Set.
- N.I. Throttle Servo.
14 Radio Equipment

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

15 Linkage

- PM2 x 16mm Screw: 3
- PM2 x 20mm Screw: 6

16 Landing Gear

- PM4 x 25mm Screw: 4
19 Cockpit

PA3 x 8mm Screw
3mm Washer

20 Canopy

PWA2.3 X 8mm Screw

Pilot #PC001102

21 Wing Setting

Adjust the wing and fuselage configuration as in the diagrams.

Installation of flying wires is recommended should you find excessive vibration being transmitted from the engine to the horizontal stabilizer.
22 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.

---

23 C.G.

The ideal C.G. position is 120-130mm 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.

---

! 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.

# EXTRA 300 - 120S is specially designed to be powered by 4C 1.20 engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause severe 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.

# Check and re-tighten up all factory assembled screws, use thread locker if applicable.
Usage of the transparent 3D template

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

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.