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.

Specifications

<table>
<thead>
<tr>
<th>Wing Span</th>
<th>56 in / 1420 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Area</td>
<td>552 sq in / 35.6 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>5.7 lbs / 2600 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>47.5 in / 1210 mm</td>
</tr>
</tbody>
</table>

*Specifications are subject to change without notice.*
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. PUSHROD Ø1.8x100mm w/ Threads (For Aileron) -- 2 pcs
   TRI-HORN PL4111221 -- 2 sets
   SCREW PB2x25mm -- 4 pcs
   SCREW PB2x22mm -- 2 pcs
   SCREW PWA2x8mm -- 16 pcs
   CLEVIS PL4112103 -- 2 pcs
   FUEL TUBE D6x5mm -- 4 pcs
   STRAPER PL4112102 -- 2 pcs
   SERVO MOUNTING PANEL PL5310000 -- 1 pair
   MAIN LANDING GEAR COVERS -- 1 pair
   RETRACTABLE LANDING GEAR COVERS -- 1 set
   WING JOINER 8x24x149mm -- 1 pc.
   180mm Y-CORD KW0021800 -- 1 pc.

3. STABILIZER & ELEVATOR -- 1 set
   FUเซลAGE -- 1 pc.

4. VERTICAL FIN & RUDDER -- 1 set

5. PUSHROD Ø1.8x570mm w/ Threads (For Elevator) -- 2 pcs
   SCREW PB2x12mm -- 6 pcs
   CLEVIS PL4112103 -- 1 pc.
   TRI-HORN PL4111221 -- 2 sets
   FUEL TUBE D6x5mm -- 2 pcs

6. PUSHROD Ø1.8x640mm w/ Threads (For Rudder) -- 1 pc.
   CLEVIS PL4112103 -- 1 pc.
   SCREW PB2x12mm -- 3 pcs
   TRI-HORN PL4111221 -- 1 set
   FUEL TUBE D6x5mm -- 1 pc.

7. TAIL LANDING GEAR -- 1 set
   TAIL WHEEL Ø26mm -- 1 pc.
   COLLAR Ø2.1mm w/ Set Screw -- 1 set
   SCREW PA3x12mm -- 2 pcs
   SCREW PM2x10mm -- 1 pc.
   ALUMINIUM PLATE 0.3mm -- 1 pc.
   M2 NUT -- 1 pc.

8. FUEL TANK 450cc -- 1 set
   CABLE TIE 1.5x5x400mm -- 1 pc.
   DOUBLE-SIDE TAPE 40x120mm -- 1 pc.

9. ENGINE MOUNT PL5111050 -- 1 set
   SOCKET HEAD SCREW M4x30mm -- 4 pcs
   WASHER d4x9mm -- 4 pcs

10. THROTTLE PUSHWIRE Ø1.2x350mm -- 1 pc.
    PLASTIC TUBE d2xD3x150mm -- 1 pc.
    SOCKET HEAD SCREW M3x25mm -- 4 pcs
    WASHER d3xD7mm -- 8 pcs
    M3 NUT -- 8 pcs

11. SILICON GROMMETS PL1265035 -- 4 pcs
    SPINNER Ø82mm PL2111082 -- 1 set
    SCREW PWA2.6x12mm -- 4 pcs
    COWLING -- 1 pc.
    TRANSPARENT 3D TEMPLATE -- 1 pc.

12. LINKAGE CONNECTOR Ø2.1mm w/ set screw -- 1 set

13. STRAPER PL4112102 -- 2 pcs
    FUEL TUBE D6x5mm -- 2 pcs
    PUSHROD CONNECTOR PL4410010 -- 1 set
    PUSHROD Ø1.8x85mm (For Elevator) -- 1 pc.
    SPONGE 10x80x200mm -- 2 pcs
    PLYWOOD 6x42x87.5mm -- 2 pcs
    BALSA 6x6x42mm -- 2 pcs

14. BUTTON HEAD SCREW HM4x35mm -- 2 pcs
    BUTTON HEAD SCREW HM4x60mm -- 2 pcs
    WASHER d4.2xD14.5mm -- 4 pcs

15. CANOPY -- 1 pc.
    SCREW PWA2.3x8mm -- 4 pcs
    SILICON GROMMETS PL1265035 d1.5xD6.5mm -- 4 pcs
    PILOT PC001063A -- 1 pc.
    DOUBLE-SIDE TAPE 8x800mm -- 1 pc.

16. DECALS: A339 DEC -- 1 set

### COVERING:

- TOUGHLON STL 340 OLIVE DRAB
- TOUGHLON STL 203 LIGHT GRAY
- TOUGHLON STL 311 FERRARI RED
- TOUGHLON STL 331 CUB YELLOW
- TOUGHLON STL 100 WHITE
- LIGHTEX SGX 351 DARK BLUE
1. Main Wing

- Electric retract wire

L/R

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

2. Aileron Pushrod & Retractable Landing Gear

- 4.8V - 6.0V operation only, higher voltage will burn out the retract motor.

PB2x25mm Screw 4
PB2x22mm Screw 2
PWA2x8mm Screw 16

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

Straper
Fuel Tube D6x5mm

- 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.
3 Stabilizer & Elevator

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

4 Vertical Fin & Rudder

- Remove coverings for all surfaces in contact before applying A/B epoxy glue.

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

PB2x12mm Screw 6

Fuel Tube D6x5mm

PB2x12mm

Tri-horn M3 x 14mm

Clevis

Pushrod Ø1.8x470mm

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

6 Rudder Pushrod

PB2x12mm Screw 3

Fuel Tube D6x5mm

Clevis

Pushrod Ø1.8x470mm

PB2x12mm

Trip-horn M3 x 14mm

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

7 Tail Landing Gear

PA3x12mm Screw 2

PM2x10mm Screw 1

2.1mm Collar 1

M2 Nut 1

PA3x12mm 2.1mm Collar

PM2x10mm 3mm setscrew M2 Nut Aluminium Plate

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**Fuel Tank**

8 Fuel Tank

- Fuel Tank 450CC
- Cable Tie 1.5x5x400mm
- Double-sided Tape 40x120mm

**Engine Mount**

9 Engine Mount

- M4x30mm Socket Head Screw x4
- d4xD9mm Washer x4

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

- Apply thread locker to screws
**10 Engine**

- **M3x25mm Socket Head Screw**: 4
- **d3xD7mm Washer**: 8
- **M3 Nut**: 8

Illustration is for inverted mounting. You can mount the engine upright or side ways simply by rotation the engine mount. Thrust angles will not be affected.

- **Illustration**: 120 mm (4.7 in.)

**More powerful engine for racing**

- **PWA2.6x12mm Screw**: 4
- **d1.5xD6.5mm Silicon Grommets**: 4

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

**11 Cowling**

- **PWA2.6x12mm Screw**: 4
- **d1.5xD6.5mm Silicon Grommets**: 4

- **Cowling**: d1.5xD6.5mm Grommet
- **Fuselage**: PWA2.6x12mm

- **Spinner**: Silicon Grommets
- **PWA2.6x12mm**:

A339PO30731501 P.7
12 Servo Set

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

Please refer to the attached sheet for linkage connector installation.

13 Servos Setting

- Install and arrange the servo as shown in the diagram.
# 14 Main wing

- **HM4x35mm Button Head Screw**: 2
- **HM4x60mm Button Head Screw**: 2
- **d4.2x14.5mm Washer**: 4

# 15 Canopy & Pilot

- **PWA2.3x8mm Screw**: 4
- **d1.5x6.5mm Silicon Grommet**: 4

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A339PO30731501  P.9
**17 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: 15mm, 15mm
- Rudder: 30mm, 30mm
- Ailerons: 10mm, 10mm

**18 C.G.**

- The ideal C.G. position is 90mm (3.5 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.

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.

# SPITFIRE 40 is specially designed to be powered by 2-stroke 0.40-0.46 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. 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.

Should you require to bend the landing gear wire, please dismantle the retract assembly from the wings and use a vise to clamp the wire for bending. Bending the wire directly with the retract still in the wings will damage the mounting block structure.
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.

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.

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.