Super Sports Senior- 90

0.91 cubic inch displacement 4-stroke (glow)
Radio required: 4-channel radio w/ 5 servos

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>81 in / 2050mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>1020 sq in / 65.8 sq dm</td>
</tr>
<tr>
<td>Flying Length</td>
<td>9 lbs / 4100 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>61 in / 1560mm</td>
</tr>
</tbody>
</table>

Warning! This model is not a toy.
It is designed for precision model. Please seek advice if one familiar 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 are subject to change without notice. *
Super Sports Senior - 90

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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.)**
- **Ensure smooth non-binding movement while assembling.**
- **Cut off shaded portion.**
- **Must be purchased separately!**
- **Pay close attention here!**
- **Warning!**

   Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair

2. SCREW PM2 X 20mm -- 2 pcs
   SCREW PM2 X 25mm -- 4 pcs
   PUSHER ROD Ø1.8 x 106mm w/ Threads (For Aileron) -- 2 pcs
   TRI-HORN M3 X 14mm (L) -- 2 sets
   CLEVIS -- 2 pcs
   STRAPER -- 2 pcs
   FUEL TUBE Ø6 X 5mm -- 4 pcs

3. MAIN LANDING GEAR -- 1 pair
   MAIN LANDING GEAR COVER -- 1 set
   MOUNTING PLATE 12 X 20mm -- 4 pcs
   SCREW PA3 X 14mm -- 8 pcs
   SCREW PM2 X 8mm -- 8 pcs
   WASHER d2 X D5mm -- 16 pcs
   M2 NUT -- 8 pcs
   M2 NUT -- 8 pcs
   M3 NYLON INSERT LOCK NUT -- 8 pcs
   M4 NYLON INSERT LOCK NUT -- 4 pcs

4. SCREW PA3 X 12mm -- 4 pcs
   COLLAR Ø5.1mm w/ Set screw -- 4 sets
   MAIN WHEEL Ø90mm -- 2 pcs
   WHEEL PANTS -- 1 pair
   MOUNTING PLATE 12 X 20mm -- 2 pcs

5. WING TUBER Ø18 X 701mm -- 1 pc.

6. STABILIZER & ELEVATOR -- 1 set
   SCREW PM3 X 25mm -- 1 pc.
   WASHER d3 X D7mm -- 1 pc.
   FUSELAGE -- 1 pc.

7. VERTICAL FIN & RUDDER -- 1 set
   COLLAR Ø2.1mm -- 1 pc.
   FUEL TUBE Ø6 X 5mm -- 2 pcs
   CLEVIS -- 2 pcs

8. TAIL LANDING GEAR -- 1 set
   TAIL WHEEL Ø25mm -- 1 pc.
   SCREW PA3 X 12mm -- 2 pcs
   COLLAR Ø2.1mm w/ Set screw -- 1 set
   SCREW PM2 X 14mm -- 1 pc.
   WASHER d2 X D5mm -- 2 pcs
   M2 NUT -- 1 pc.
   ALUMINUM PLATE 0.3mm -- 1 pc.

9. FUEL TANK 450CC -- 1 set
   BALSA 6 x 10 x 116mm (For fixing fuel tank) -- 1 pc.

10. ENGINE MOUNT (PLS91120) -- 1 set
    SOCKET HEAD SCREW M6 X 30mm -- 4 pcs
    WASHER d6 X D15mm -- 4 pcs

11. THROTTLE PUSHWIRE Ø1.2 x 340mm
    w/Plastic tube d2 x D3 x 185mm -- 1 set
    ALUMINUM PLATE (For Engine Mount) -- 1 pc.
    ANTI - VIBRATION MOUNT -- 1 set
    INCLUDE: SCREW M4 X 25mm -- 4 pcs
    SCREW KM3 X 20mm -- 8 pcs
    WASHER d4 X D12mm -- 8 pcs
    M3 NYLON INSERT LOCK NUT -- 8 pcs
    M4 NYLON INSERT LOCK NUT -- 4 pcs

12. COWLING -- 1 set
    TRANSPARENT DUMMY COWLING -- 1 set
    PWA2.6 X 12x12mm -- 5 pcs
    SILICON GROMMET d1.5 X D6.5mm -- 5 pcs
    SPINNER Ø70mm -- 1 set

13. WIRE Ø1 x 900mm (For Ruddler) -- 2 pcs
    COPPER TUBE d2.5 X D3.2 X 8mm -- 2 pcs
    RIGGING COUPLER Ø1.8 X 27mm w/ Threads (For Ruddler) -- 2 pcs
    SCREW PM2 X 16mm -- 3 pcs
    M2 NUT -- 3 pcs
    TRI-HORN M3 X 14mm (L) (w/o - Base For Ruddler) -- 2 sets
    FUEL TUBE Ø6 X 5mm -- 2 pcs
    CLEVIS -- 2 pcs

14. PUSHROD Ø1.8 x 660mm w/ Threads (For Elevator) -- 2 pcs
    TRI-HORN M3 X 4mm (L) -- 2 sets
    SCREW PM2 X 14mm -- 6 pcs
    FUEL TUBE Ø6 X 5mm -- 2 pcs
    CLEVIS -- 2 pcs

15. LINKAGE CONNECTOR Ø2.1mm -- 1 set

16. SPONGE 60 X 70 X 115mm -- 1 pc.
    RIGGING Z BEND Ø1.8 x 27mm (For Ruddler) -- 2 pcs
    PUSHROD Ø1.8 x 170mm (For Elevator) -- 1 pc.
    COPPER TUBE d2.5 X d3.2 X 8mm -- 2 pcs
    STRAPER -- 1 pc.
    FUEL TUBE Ø6 X 5mm -- 1 pc.
    PLYWOOD 120 X 35 X 6mm (For Throttle Servo) -- 1 pc.
    BALSAL 6 x 6 x 35 (For Throttle Servo Stand) -- 2 pcs
    PLYWOOD CONNECTOR 8 X 9 X 20mm -- 1 set

17. CANOPY -- 1 set
    SCREW PWA2.3 X 8mm -- 8 pcs
    SILICON GROMMET d1.5 X D6.5mm -- 8 pcs
    PILOT PL001085A/B -- 1 pc.

18. SCREW PM4 X 35mm -- 2 pcs
    WASHER d4 X D15mm -- 2 pcs
    PLYWOOD 2 x 30 x 120mm (Wing Protection) -- 1 pc.

19. DECALS -- 1 set
    COVERING:
    ● COVERING:
      RED COLOR SCHEME:
      TOUCHLON STL 312 BRIGHT RED
      TOUCHLON STL 320 ORANGE
      TOUCHLON STL 330 CADMIUM YELLOW
      TOUCHLON STL 351 DARK BLUE
      TOUCHLON STL 100 WHITE
      PURPLE COLOR SCHEME:
      TOUCHLON STL 351 DARK BLUE
      TOUCHLON STL 380 VIOLET
      TOUCHLON STL 381 PURPLE
      TOUCHLON STL 241 TURQUOISE
      TOUCHLON STL 100 WHITE

P. 2
1 Main Wing

Pre-glued

PM2 x 20mm Screw
PM2 x 25mm Screw

2 Aileron Servo

PM2 x 20mm Screw
PM2 x 25mm Screw

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

PM2 x 20mm
PM2 x 25mm

Fuel Tube Ø6 x 5mm

Tri-horn M3 x 14mm

PM2 x 8mm

3 Main Landing Gear

PA3 x 14mm Screw
PM2 x 8mm Screw
d2 x 5mm Washer
M2 Nut

PA3 x 14mm
d2 x D5mm Washer
PM2 x 8mm

M2 NUT

Plate

Bottom View
4 Main Landing Gear

PA 3 x 12mm Screw 4
3mm Set Screw 4
5.1mm Collar 4

PA 3 x 12mm

3mm Set Screw

Ø5.1mm Collar

Wheel Ø90mm

Completed

5 Main Wing

Peel off shaded portion covering film for lead to another aileron servo.

Wing Tuber Ø18 x 701mm

Peel off shaded portion covering film

Lead to aileron Servo.

6 Stabilizer / Elevator

PM3 x 25mm Screw 1
PM3 x 25mm Washer 1

PM3 x 25mm
d3 x D7mm

Apply thread locker to screws.

Bottom View

Pre-glued

P. 4
7 Vertical Fin / Rudder

8 Tail Landing Gear

PA 3 x 12mm Screw  
3mm Set Screw  
2.1mm Wheel Collar  
PM2 x 14mm Screw  
d2 x D5mm Washer  
M2 Nut

9 Fuel Tank

Fuel Tank 450cc

Install Balsa 8 x 10 x 116mm (For fixing fuel tank)
Apply thread locker to screws.

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

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

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

13 Rudder Pullwire

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

14 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.
15 Servo Set

<table>
<thead>
<tr>
<th>LINKAGE CONNECTOR</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 x 3mm Set Screw</td>
<td>1</td>
</tr>
<tr>
<td>Linkage Connector</td>
<td>1</td>
</tr>
<tr>
<td>2mm Nut</td>
<td>1</td>
</tr>
<tr>
<td>2mm Washer</td>
<td>2</td>
</tr>
</tbody>
</table>

![Diagram of linkage connector installation](image)

- Please refer to attached sheet for linkage connector installation.

16 Radio Equipment

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

![Diagram of radio equipment setup](image)

- Bottom View
17 Canopy

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

PWA2.3 x 8mm Screw

Pilot

Silicon Grommet d1.5 x 6.5mm

18 Main Wing

PM4 x 35mm Screw

PM4 x 35mm

d4 x D15mm

Washer

d4 x D15mm

Bottom View

19 Wing Setting

Adjust the wing and fuselage configuration as in the diagrams.

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

0° 2.5° 1.5°
The ideal C.G. Position is 108mm (4.25 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.

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.

Super Sports Senior - 90 is specially designed to be powered by 0.91 4 stroke glow 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.

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

Warbirds Funfly

Scale Electric

Sports Glider

Trainer Boat

Accessories

Covering (Lightex /oughlon)