Before commencing assembly, please read these instructions thoroughly.

Specifications

Wing Span: 48.8 in / 1240 mm
Wing Area: 338 sq in / 21.8 sq dm
Flying Weight: 25.8 oz / 730 g
Fuselage Length: 33.8 in / 858 mm
Requires: 4-channel radio w/ 5 mini servos
Outrunner Motor KM28251025 w/ Propeller Adaptor
HW2340100 20A Brushless ESC, 9x6 Propeller,
3 cells 11.1V 1800 mAh Li-Po battery & charger.

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 electric 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.*
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. For pre-assembled kits, please check proper functions of all servos on the ground before flying. Servo gears could be damaged when control surfaces are hit during transportation of models. The manufacturer will replace any servos due to manufacturer’s defect, but will not cover plane crashes due to damaged servos not detected before flying.

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. DECALS: GM082XM DEC -- 1 set
   MAIN WING -- 1 pair
   STABILIZER -- 1 set
   FUSELAGE -- 1 set

2. STABILIZER & ELEVATOR -- 1 set
   HINGES PL4115050 -- 4 pcs

3. VERTICAL FIN & RUDDER -- 1 set
   HINGES PLL4115050 -- 3 pcs

4. DECALS FOR RUDDER -- 1 set

5. HORN PL4113103 -- 1 pc.
   PLASTIC BRACKET -- 2 pcs

6. FUEL TUBE D2xD4x4mm -- 2 pcs
   CLEVIS PL4112105 -- 1 pc.
   STRAPER PL4112106 -- 1 pc.
   PUSHROD Ø1.4x45mm w/ Threads (For Rudder) -- 1 pc.

7. HORN PL4113103 -- 1 pc.
   PLASTIC BRACKET -- 2 pcs

8. FUEL TUBE D2xD4x4mm -- 2 pcs
   CLEVIS PL4112105 -- 1 pc.
   STRAPER PL4112106 -- 1 pc.
   PUSHROD Ø1.4x60mm w/ Threads (For Elevator) -- 1 pc.

9. TAIL LANDING GEAR PL3410030 -- 1 set
   SCREW PA2x8mm -- 2 pcs
   TAIL WHEEL Ø23mm PL3510230 -- 1 pc.

10. MAIN LANDING GEAR Ø2.5mm -- 1 set
    COLLAR Ø2.6mm w/ Set Screw -- 2 sets
    MAIN WHEEL Ø40mm PL3116040 -- 2 pcs
    SCREW PA2.3x8mm -- 1 pc.
    PLYWOOD 21x26x2.5mm (For Main Landing Gear) -- 1 pc.

11. SOCKET HEAD SCREW M3x8mm -- 4 pcs
    WASHER d3xD7mm -- 4 pcs

12. HORN PL4113103 -- 2 pcs
    HINGES PLL4115050 -- 8 pcs
    PLASTIC BRACKET -- 4 pcs

13. FUEL TUBE D2xD4x4mm -- 4 pcs
    CLEVIS PL4112105 -- 2 pcs
    STRAPER PL4112106 -- 2 pcs
    PUSHROD Ø1.4x65mm w/ Threads (For Aileron) -- 2 pcs

14. WING TUBE Ø6x715mm -- 1 pc.
    NYLON BOLT M3x20mm -- 2 pcs

15. RECEIVER TIE 130mm -- 1 pc.

16. BATTERY TIE 200mm -- 1 pc.
    BATTERY MAT 2x50x150mm -- 2 pcs

17. SPINNER Ø36mm SP27036FR0 -- 1 set
    9x6 PROPELLERS PL6314050 -- 1 set
    SCREW PM2x12mm -- 2 pcs
    SCREW PA1.7x8mm -- 2 pcs

18. BATTERY COVER -- 1 pc.

GM082XMPO30231403
Cut out decal sheet, peel off backing sheet and apply on fuselage, stabilizer and wings.

Main wings

Stabilizer

Fuselage
2 Stabilizer & Elevator

- For pre-assembled version, the hinges are factory glued.

3 Vertical Fin & Rudder

- For pre-assembled version, the hinges are factory glued.

4 Decals for Rudder

- Apply decal sheets on both sides to fasten rudder. Make sure no decal sheet cover the hinge gap. Check free movement of rudder before hooking up with rudder pushrod.
5 Rudder Servo & Horn

- For pre-assembled version, the horn is factory glued and servo installed.

6 Rudder Pushrod

- For pre-assembled version, the horn is factory glued and servo installed.

7 Elevator Servo & Horn

- For pre-assembled version, the horn is factory glued and servo installed.
**8 Elevator Pushrod**

- **Elevator Pushrod**
- **Plastic Stand**
- **Clevis**
- **Fuel Tube Ø2x44mm**

**9 Tail Landing Gear**

- **PA2x8mm Screw**
- **Wheel Ø25mm**
- **PA2x8mm Screw**

**10 Main Landing Gear**

- **PA2.3x8mm Screw**
- **3.1mm Collar**
- **Wheel Ø40mm**
- **M3x3mm Set Screw**
- **Plywood 21x26x2.5mm**

**Bottom View**
11 Motor & ESC

- M3x8mm Socket Head Screw 4
- d3xD7mm Washer 4

- M3x8mm
- d3xD7mm Washer
- EZ Connector N.I.
- Brushless ESC N.I.
- 2-Pin EZ Connector N.I.

12 Aileron Servo & Horn

- Hinge Setting
- Plastic Bracket
- Servo wire
- Horn

For pre-assembled version, the hinges and horn are pre-glued, and servo installed.
13 Aileron Pushrod

Insert carbon fiber wing tube into right wing, align the anchor holes and apply the nylon bolt.

Nylon Bolt M3x20mm

14 Main Wing

Insert carbon fiber wing tube into right wing, align the anchor holes and apply the nylon bolt.

Wing Tube Ø6x715mm

Servo wire

Nylon Bolt M3x20mm

Insert the right wing into the Fuselage. Inset the left wing onto the carbon wing tube, press the wings against the fuselage align the anchor holes and apply the nylon bolt.
15 Radio

- Plug in the Aileron Servos wire to channel 1
- Plug in the Elevator Servo wire to channel 2
- Plug in the ESC Throttle wire to channel 3
- Plug in the Rudder Servo wire to channel 4

16 Radio

Switch on radio
The power LED should turn on

- Mode 1
  - Elevator
  - Throttle
  - Rudder
  - Aileron

- Mode 2
  - Elevator
  - Throttle
  - Rudder
  - Aileron
17 Battery & Motor Setting

1. Pull throttle stick all the way back.

2. Plug in battery wait a few seconds for the transmitter and receiver to bind.

3. Advance throttle stick, the motor should start running, check motor shaft for rotating direction. The motor should be turning counter-clock wise. If rotating direction is not correct, unplug the 3-pin plug connecting the motor and ESC, swivel 180° and plug back, the rotation will be reversed.

Battery Tie 200mm

Plug in with red+ / black- reversed will damage the ESC.

18 Servos Setting

- Please move the servo reverse switch for Aileron, AIL up to the REV position, and check the following.

Mode 1
Move aileron stick to right side

Mode 2
Move aileron stick to right side

The left aileron should move down, and the right aileron should move up, the plane will bank right when flying.

Mode 1
Move aileron stick to left side

Mode 2
Move aileron stick to left side

The left aileron should move up, and the right aileron should move down, the plane will bank left when flying.

(For WMT6 radio only. Please refer to respective instruction manual if you are using other radio system.)
Servos Setting

Mode 1: Pull back Elevator stick
- Elevator should move up, plane will pull up when flying.

Mode 2: Pull back Elevator stick

Mode 1: Push forward Elevator stick
- Elevator should move down, plane will dive down when flying.

Mode 2: Push forward Elevator stick

Mode 1: Move Rudder stick to right side
- The rudder should move to right, the plane will turn to right when flying.

Mode 2: Move Rudder stick to right side

Mode 1: Move Rudder stick to left side
- The rudder should move to left, the plane will turn to left when flying.

Mode 2: Move Rudder stick to left side
Propeller

1. Unplug battery

2. Switch off transmitter

3. Charge battery

The battery is ready for use when all the lights turn from red to green.

4. Install the propeller

- 9x6 Propeller PL6314050
- Propeller Adaptor (d3xD5) HW2340100
- M5 Nut
- Ø36mm Spinner
- PA1.7x8mm
- PM2x12mm
- EZ Connector Puller

* Make sure you have unplugged the battery before working on the propeller.
Install battery onto the battery tray. Don’t plug in the battery yet. Put on the battery check C.G. mark underneath wings.

Support the model by two fingers on the C.G. mark, move battery position if necessary to balance the model on the C.G. marks.
Get Ready to fly

1. Turn on transmitter, throttle stick at low position.

2. Plug in battery.

3. Wait a few seconds for the receiver to bind with transmitter.

4. Make sure the propeller is cleared of any object.

5. Advance throttle stick slowly to check rotation of propeller.

6. Check movement of Ailerons, Elevator and Rudder by moving the sticks as shown in Step 18 and Step 19.
Try to get an experienced flyer to check through your installation before flying. Ask him/her to do the first flight for you. He/she can trim out the control surfaces for you so the model can fly straight and level with control sticks in neutral positions and throttle stick about half throttle. You will get a much higher successful rate with the help from an experienced flyer.

Before you fly, try to fine tune the control surfaces with Sub-trim tab.

1. Fine tune Elevator and Rudder with sub-trim tab.

   ![Mode 1](image1)
   ![Mode 2](image2)

   Move Elevator Sub-trim tab up or down to bring elevator in a straight line with horizontal stabilizer.

   ![Mode 1](image3)
   ![Mode 2](image4)

   Move Rudder Sub-trim tab left or right to bring rudder in a straight line with vertical stabilizer.

2. Fine tune Ailerons with sub-trim tab.

   ![Mode 1](image5)
   ![Mode 2](image6)

   Move Aileron Sub-trim tab to bring Ailerons in a straight line with Wings.
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.

# SkyNova 2 is specially designed to be powered by KM28251025 Outrunner Motor.

# Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller. Extreme caution should be exercised when working with electric powered models. Make sure the propeller is cleared of all objects, especially your hands before connecting the battery to the model. Make sure you understand the operation of the ESC (Electronic Speed Control) by studying the ESC manual. Once you plug in the battery for electric powered model, always treat the propeller as a rotating one, as accidental movement of the throttle stick will spin the propeller and could cause injuries.

# Check and re-tighten up all factory assembled screws, use thread locker if necessary.
Optional Parts

(DWM ACCESSORIES)

3 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

2 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011210</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

Propeller Adaptor Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW3111400</td>
<td></td>
<td>1 pc</td>
</tr>
</tbody>
</table>

Ez Connector Puller

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL8210030</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>

Clevis Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL8210010</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>

Special tool for clevis installation. Suitable for standard and small (EP) clevis.

Outrunner Motor

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM28251025</td>
<td></td>
<td>1 pc</td>
</tr>
</tbody>
</table>

- K_v (rpm/V): 1025
- Operating Power: 110W
- Operating Voltage: 2-3S Li-Po
- Operating Current: 10A
- Peak Current: 15A (max. 15 sec.)
- Internal Resistance: 50 m ohms
- Diameter: 27.6mm
- Length: 25mm
- Weight: 40g
- Shaft Diameter: 3mm
- Shaft Length: 14 mm
- Mounting Screw: M3 (Front)
- Distance of Mounting Holes: 16mm and 19mm