

# 1 Power Supply System

## 1.1 Introduction of Power Supply System

The DB-PS30 Tethered System is M30 knapsack system, and the console of the tethered box is equipped with LED lighting system, with built-in mosquito repellent lamp; The tethered box provides a folding function that can be used when the ground is unfurled protect the tethered box by avoiding contact with the harsh ground environment;The box can be designed as a backpack. The material of the box is made of environment-friendly materials. The joint with the back of the body conforms to ergonomic design and is comfortable durable, suitable for individual long distance carrying. While high integration provides portability, the automatic take-up and pay-off function of 55m cable can also ensure the rapid deployment and return of the tethering system.It is an effective device to protect cables by reducing the impact and bending of cables.

## 1.2 Technical Parameters

Item	Technical Parameters
Airborne module size	100mm*80mm*40mm
Weight	200g
Output power	1000w
Box size	480mm*380mm*200mm (back frame excluded)
	480mm*380mm*220mm (back frame included)
Full load weight	10Kg
Output power	1.5Kw
Cable length	50m
Operation temperature	-20°C-+50°C

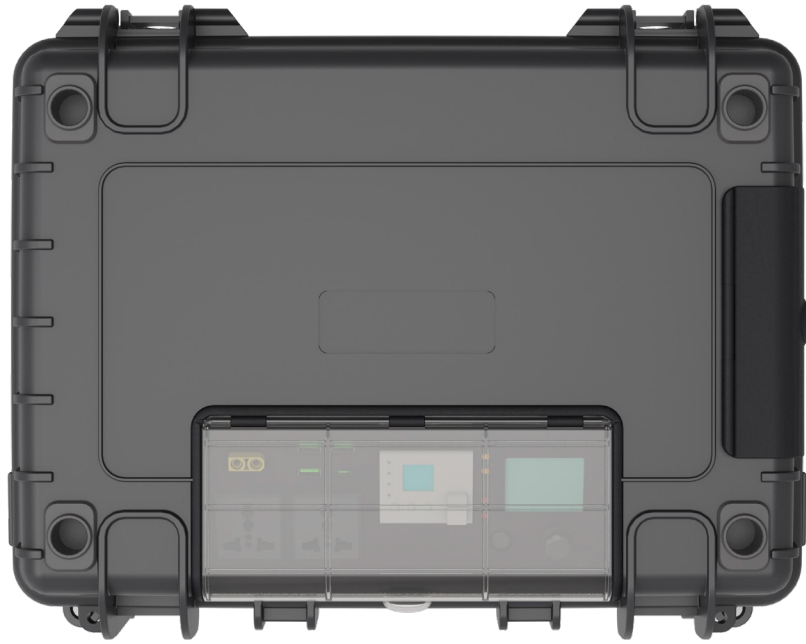


Figure 1. Communication Box Component Diagram

# 1.3 Instruction For Use

## 1.3.1 Airborne and lighting installation steps:

1).Install the lights on the bottom of the drone;



Press this button



Hearing a 'click' sound indicates that the installation is in place

2).Install the airborne on the drone battery, and then install to the drone;

3).Then plug the light power supply into the airborne;



4) Then insert the light PSDK cable into the drone PSDK socket and organize the PSDK cable to avoid contact with light radiator.

5) Connect the tethered plug to the airborne socket.



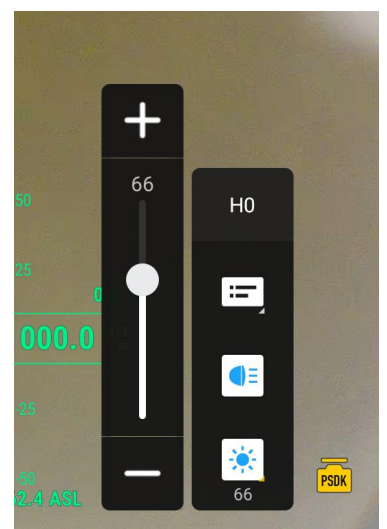
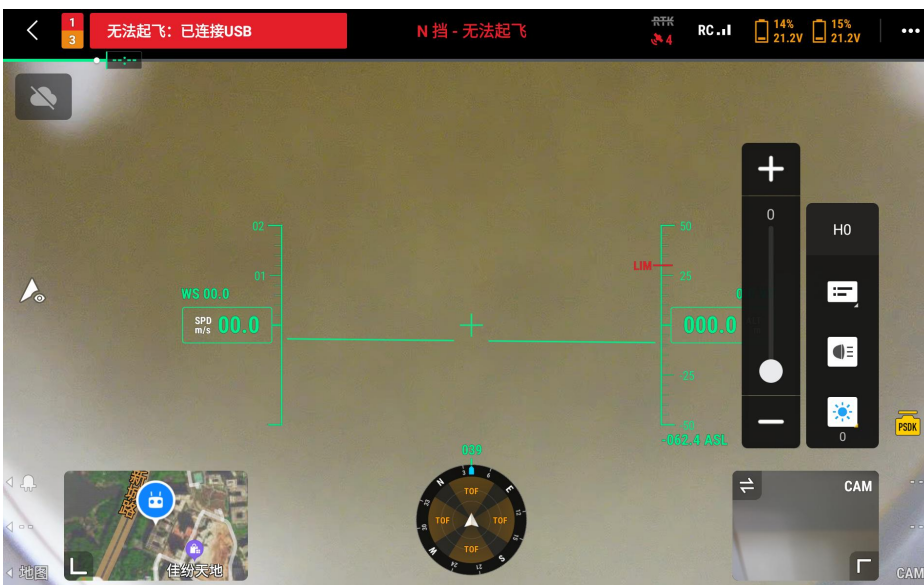
6) Finally, install the cable safety buckle and buckle up the lock catch onto the metal ring on the light.



7) Adjust the lighting pitch angle according to on-site needs.  
(Side lighting for safer lighting)

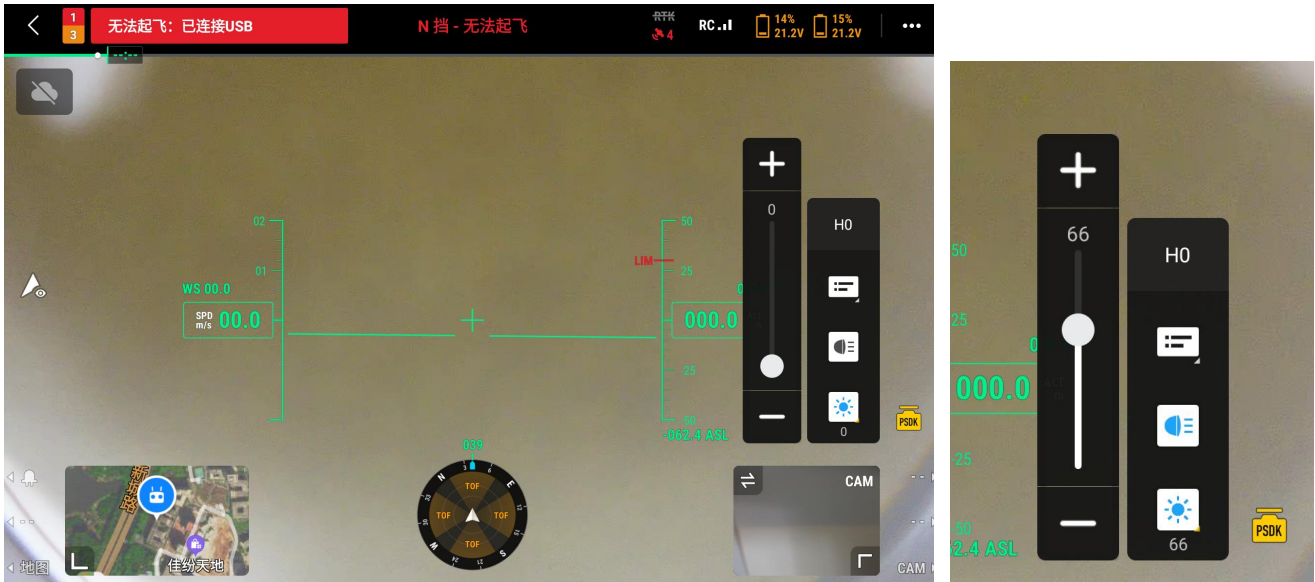


8) Turn on the drone and remote control, and the light device that has been correctly recognized by the drone will execute the hover button, hovering on the right side of the Pilot flight interface, as shown in the following figure.  
 The three hovering buttons from top to bottom are: device version information viewing, light activation, and light brightness adjustment.



Click the "Light Start" button, the lights on the drone will light up, and then click again to turn off the lights. The default brightness of the lights is 10%;  
 Click on the "Light Brightness Adjustment" button, and a stretching bar will appear on the left. Pull to adjust the light, and the light brightness can be adjusted by 0-100%.

- 9) Fly the drone to a height of 2 meters and then turn on the high voltage. (The flight time on the remote control begins to increase, indicating that the tether has started working)
- 10) At this point, the aircraft can slowly ascend and fly to the required altitude for operation.
- 11) The lights can be turned on and off through the DJI remote control, and the brightness of the lights can be adjusted in real-time.



### 1.3.2 Instructions for withdrawal of use

- 1) Lower the drone to a height of 2 meters and hover, first turn off the lights, and then turn off the high voltage;
- 2) Then slowly descend to the ground;

**Note: When landing, be careful to avoid the drone blades hitting the tethered cable**

- 3) Turn off the drone, first unplug the PSDK cable, then unplug the light power cable;
- 4) Remove the cable socket and click the automatic cable take-up of the master control platform
- 5) Removing the drone battery;
- 6) Press and hold the light quick installation button to gently lift and remove the light;
- 7) Click the cable "take-up" button to collect the cable;
- 8) Finally, turn off the power supply of the tethered box and complete the storage.

### 1.3.3 Panel Operation Instructions



- 1) Turn the knob to the high voltage position, press the knob then confirm, then power on, the power light is on;
- 2) Turn the knob to AC220V position, press the knob then confirm, the left two AC plugs have electric output;
- 3) Turn the knob to the position of the take-up, press the knob then confirm, the automatic wire take-up is turn on , and the light of take-up light up
- 4) Turn the knob to the lighting position, press the knob then confirm, the UAV light will light up;
- 5) Turn the knob to the setting position, press the knob then confirm, enter the interior to modify the parameters;
- 6) First short press and then long press the return key to power on and power off.

#### **NOTE: Use of Manual Take-up Reel**

Pull the handle outward and push it up  
Do not use brute force to push the handle.

