

# SWIWIN SW800Pro-Y Technical specifications



## SWIWIN SW800Pro-Y List of engine accessories

Serial number	Name	Picture specification	Quantity
1	Engine		one
2	GSU		one
3	Fixture	 Hexagon socket head cap screws (M4×14) Hexagon socket lock nut (M4)	one
4	Power plug		one
5	Signal plug		one
6	Power Cable		one
7	Tubing		2m

8	Upgrade tool		one
9	Connector		one
10	RS232Serial port tool		one
11	Certificate		one

## Technical parameter

Model	SW800Pro-Y
Thrust	80kg
Diameter	207mm
Length	455mm
Engine weight	9500g
Total weight (including accessories)	10030g
Usage temperature	-40°C~50°C
Supply voltage	16V-32V
Starting system	One-button electronic start
Rpm Range	25000-65000
Exhaust Temperature	750°C
Fuel Consumption	1850g/min
Fuel	kerosene
Lube oil	3%~5%
Maintenance Interval	25H



## Engine start parameters

Pump Voltage	0.7-0.9V
RPM Start Up Ramp	100%
Pump Start Up Ramp	3
Glow Plug	6.6V
Valve	40
Ignition RPM	1300
Preheat RPM	3000
RPM Off Starter	13000

## Engine operating parameters

RPM ACC	10
RPM DEC	10
Max RPM	65000
Idle RPM	25000
Minimum speed	20000
Max Temp	1000
Low Volt	10V
Restart	close
Restart Glow Plug	Consistent with the voltage of the burner
Pump Limit	28V

## Engine cooling parameters

cool	2000rpm
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## Starting motor parameters

Pop-up time	0.8S
Ejection voltage	5V
Run Voltage	2.5V

Note: All data are measured at standard air pressure.

When the ambient temperature is too high or the oxygen content in the air is low, too fast acceleration and deceleration will easily lead to flameout failure.

## Control

### 1、Throttle signal

The throttle adopts the pulse width (PWM) control mode, the pulse width is 1ms~2ms, 1ms corresponds to the minimum throttle (0%), 2ms corresponds to the maximum throttle (100%), the pulse high level is 3.3V and 5V(3.3V and 5V are available on average), and the pulse low level is 0V.

### 2、Start switch

The start switch adopts the pulse width (PWM) control mode, the pulse width is 1ms~2ms, 1ms corresponds to off, 2ms corresponds to on, the pulse high level is 3.3V and 5V(3.3V and 5V can be used equally), and the pulse low level is 0V.

### 3、Telemetry data

① The engine has telemetry function, and data is transmitted through the 232 standard serial port, and the baud rate of the serial port can range from 9600 bps to 57600 bps.

② The data to be measured include but not limited to engine speed, engine throttle, oil pump voltage, engine state and error information.

③ The communication protocol of the data to be measured is open, and detailed communication protocol description documents are provided.

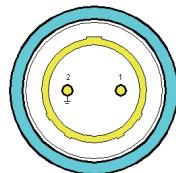
### 4、Data record

① The engine has the data recording function, which can record the data 1 hours before the engine failure.

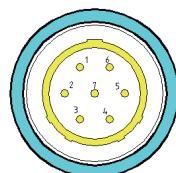
② Data records include but are not limited to engine speed, engine throttle, oil pump voltage, engine status and error information.

③ Provide engine data analysis software to facilitate data analysis after flight.

## Definition

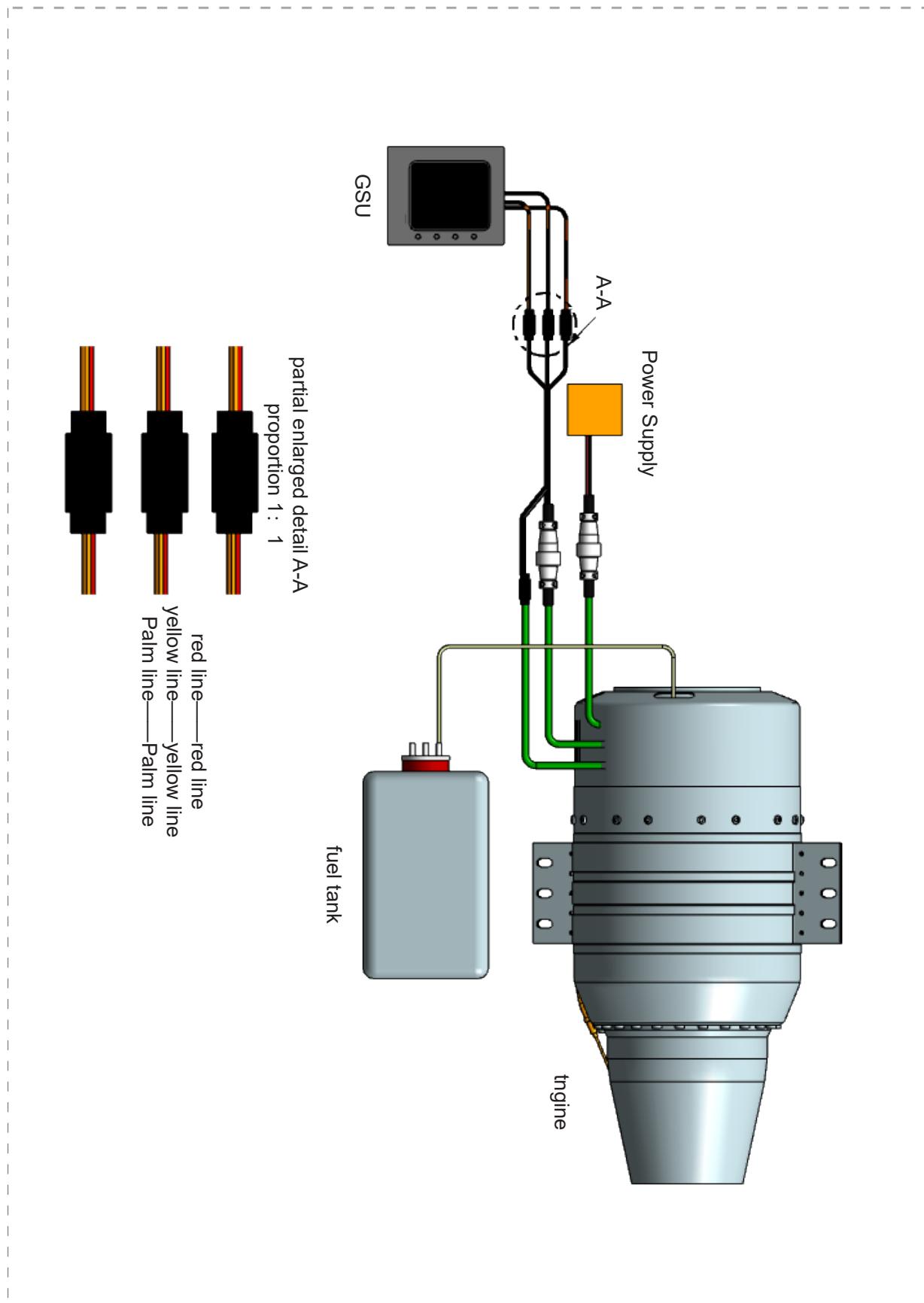


A: ECU power supply  
1: Positive power supply (16.8-24V)  
2: Power supply negative pole

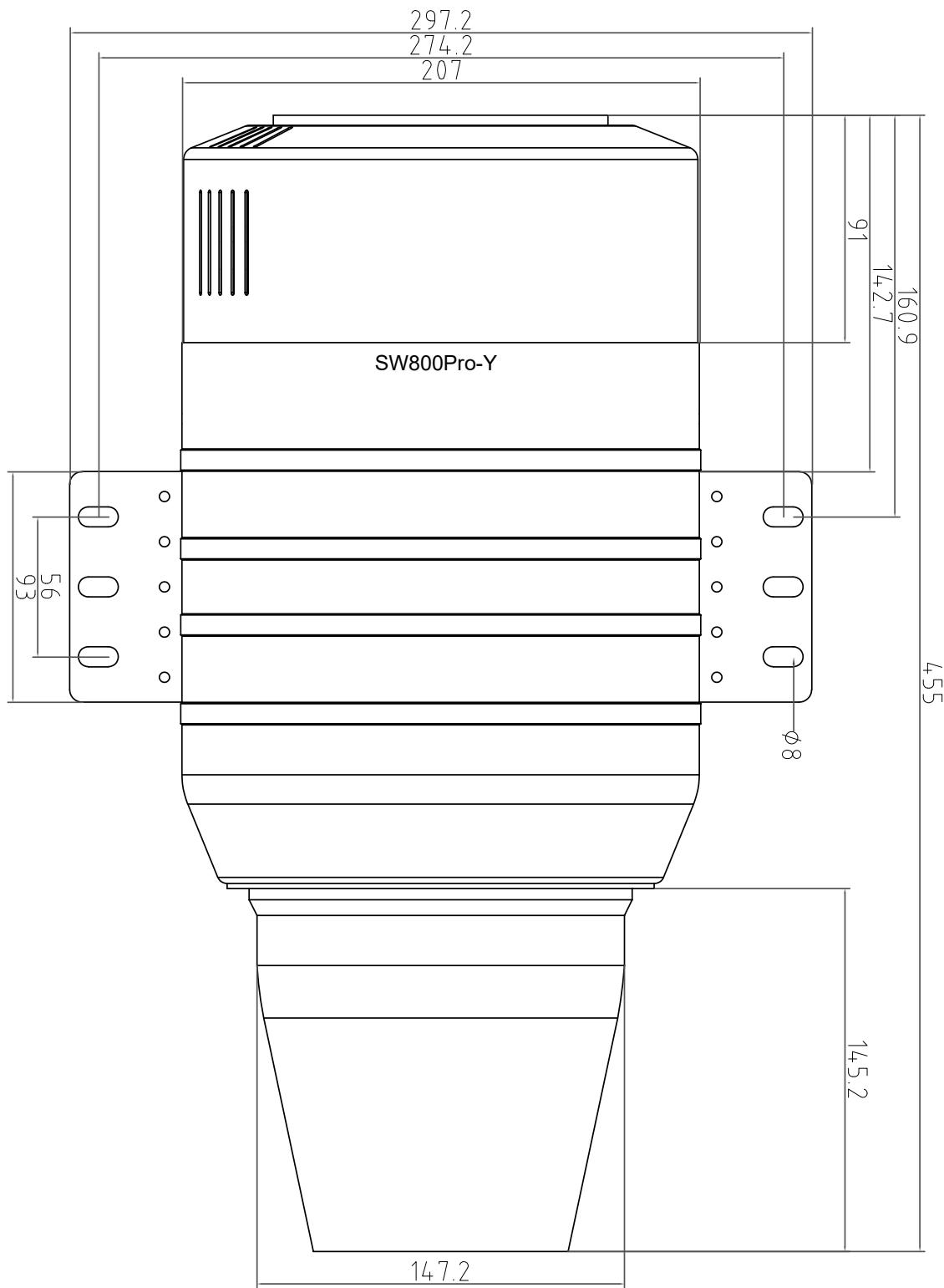


B: ECU data connection  
1: Three-stage switch, data  
2: Throttle, three-stage switch, common positive electrode 6V  
3: RX232、TX  
4: RX232、GND  
5: RX232、RX  
6: Throttle, data  
7: Throttle, three-section switch, common negative electrode

## System connection diagram



## Product dimension diagram





## Disclaimer

This product is limited to use in entertainment and civil fields such as aerial model toy flying, competitions, performances, firefighting, road drying and cleaning.

Please strictly follow the provisions of the Export Control Law of People's Republic of China (PRC). It is strictly forbidden to modify the product for illegal use. It is strictly prohibited to resell the product to the export restriction country under the law in China.

Otherwise, all consequences will be at your own risk.