HSDJETS®

MFC-2085

MULTI-FUNCTION

FLIGHT CONTROLLER SYSTEM

ENGLISH MENU

INTRODUCTION &

QUICK ENTRANCE

Want to learn more about the productvideo, pictures, and other matters of attention Please log in: www.hsdrc.com

Product Guarantee Condition

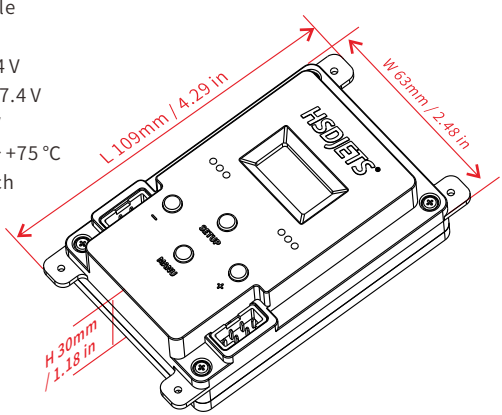
During the production process, HSDJETS has conducted a series of rigorous tests on each MFC 2085 Multi-function Flight Controller System. We always attach great importance to the maintenance of the highest quality standards, which is reason we can give all our MFC-2085 products 3 months of assurance and the effective from the initial date of purchase. The warranty covers the material failure, which will be replaced by us free of charge. We wish to emphasize in particular that we reserve the right to replace if economic reasons can not be repaired. The purchase receipt and invoice is the proof of after-sales service. Free maintenance is limited to the warranty period only. Misuse and damage, such as antipolarity, overvoltage and humidity effects, which apply to failures due to server wear or excessive vibration, are not in the services options. Product quality assurance and after-sales service does not include any additional claims. HSDJETS only warrants that the MFC-2085 is repaired or replaced and will not be liable for any other loss or damage.

Product Features

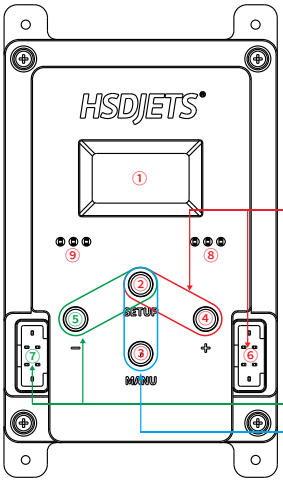
01. Two-way power management system 2S, 7.4 V input voltage design, single way 20A maximum electric current output, can meet the requirements of most aircraft in the today's market, and it has a function that the battery automatically seamless switches.
02. 0.96 inch OLED display screen, scroll menu preview internal settings. The main interface can display battery voltage value, power on time and other information.
03. The intelligent landing gear timing sequence system, can adjust the operating current of the landing gear and can set one key to retractable cover plate and landing gear.
04. Supporting electric brake control function and slow start brake, which make the aircraft taxiing more stable
05. With lighting control system, it can be turned on and off through the setting of remote control system programming, and five lighting flashing mode are arbitrarily called.
06. With the landing gear cover control system, it can extend or shorten the closing or opening time of the cover plate, it can also set the secondary action of the cover plate, and it can also adjust the servo stroke of the cover plate.
07. Can set the positive and negative reversals of the servo, includes ailerons, elevator, directions, flaps, and covers.
08. With the function of adjusting the neutral position of the servo, includes ailerons, elevator, directions and flaps.
09. The stroke of ailerons, elevator, directions and flaps can be adjusted by MFC-1085 multi-function flight controller.
10. With flight trajectory offset system. According to the characteristics of the aircraft, can set the elevator offset of the accelerator and flap to offset the curve and let it adjust arbitrarily.
11. Supporting tail lighting system, with the adjusted of the accelerator the lighting effect can be changed.
12. Supporting S-UBS bus(lines) functions, arbitrarily set 8 function channels, one signal line to complete the required functions.
13. The back line design. The line from the bottom of the installation position, the upper surface only two UBEC power input socket, no see other signal lines in surface, easy to install, simple and beautiful.
14. The output voltage of the receiver can be adjusted by programming. Two types of voltage choices can be used. The receiver and the steering gear can adjust the voltage range separately.
15. Simultaneously compatible with electric landing gear system and pneumatic landing gear system.

Product Specification

* Working voltage : 7.4 V，2S for DC. (battery input)
* Navigation lights/Landing gear lights voltage：3.2 V
* Receiver Output voltage：6～7.4 V adjustable
* Servo voltage：6～7.4 V adjustable
* Electric air valve voltage：6 V
* Electric landing gear voltage：7.4 V
* Electromagnetic Brake voltage：7.4 V
* Combustible lamp voltage：7.4 V
* Working temperature range: -5 ～ +75 ℃
* Size : L 4.29 × W 2.48 × H 1.18 inch
* Weight : 106 g / 3.74 oz



Panel and operation instructions



① OLED Display
② Enter key
③ Exit / One key retractable
④ Selection (down)
⑤ Selection (up)
⑥ Battery input port (for 2S Li-Po only)
⑦ Battery input port (for 2S Li-Po only)
⑧ Electric indicator lamp
⑨ Electric indicator lamp

Operation tips:

When the ⑥ interface connected to the battery: Press the ② and ④ combination button for 3 secondsat the same time to start up.

When the ⑦ interface connected to the battery: Press the ② and ⑤ combination button for 3 secondsat the same time to start up.

Note: the combination button is only applicable to the corresponding unilateral battery.

Long press the button ② and ③ for 3 seconds to shut down.

Long press the button ② for 3 seconds to enter the menu.

Long press the button ③ for 3 seconds to One key retractable.

Press the button ② exit one key retractable .

Manual Test	
Mode	Elec. LG: M1
Status	Ready

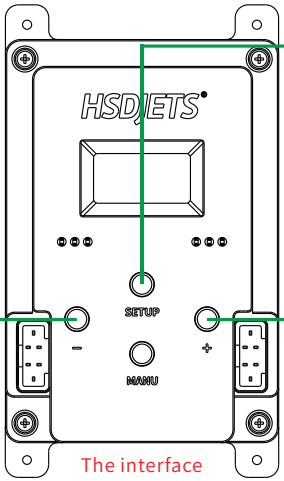
Manual Test	
Mode	Elec. LG: M1
Status	Gear Up

Manual Test	
Mode	Elec. LG: M1
Status	Gear Down

Screen instructions

BAT 1	BAT 2
7.6V	7.6V

Dual battery voltage and quantity display



The interface displays shortcut key

Runtime	01:20:13

Press this button to display the system running time

Receiver	6.0V
AUX	6.0V
Nav.Light	7.4V
Throttle CP	OFF

Click this button will display

Flap CP	OFF
LG	Disable
Wh.Brake	Use Elec. Brake
Nav.Light	Alway On

Click this button will display

Output & Input port Description

L01: Afterburner light
L02: Afterburner light
L03: Navigation light
L04: Navigation light
L05: Navigation light
L06: Navigation light
L07: Navigation light
L08: Navigation light
L09: Navigation light
L10: Navigation light
L11: Navigation light
L12: Navigation light
L13: Landing gear light
L14: Landing gear light
L15: Landing gear light

EB-02: Electronics Brake 2
EB-01: Electronics Brake 1
EG-03: Electronics Landing gear 3
EG-02: Electronics Landing gear 2
EG-01: Electronics Landing gear 1

AE-05: Gear Lock 2 (Air + Electronics)
AE-04: Gear Lock 1 (Air + Electronics)
AE-03: Door 3 (Air + Electronics)
AE-02: Door 2 (Air + Electronics)
AE-01: Door 1 (Air + Electronics)
AV-02: Brake valve (Air)
AV-01: Landing gear valve (Air)

AUX1-1: Aileron
AUX1-2: Aileron
AUX2-1: Elevator
AUX2-2: Elevator
AUX3-1: Rudder
AUX3-2: Rudder

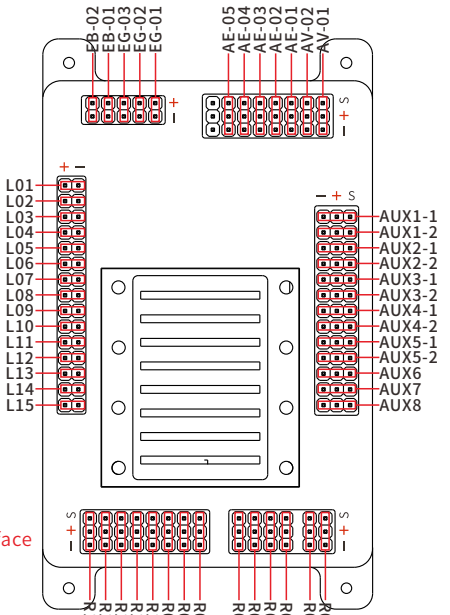
AUX4-1: Flap
AUX4-2: Flap
AUX5-1: Spare
AUX5-2: Spare
AUX6: Throttle
AUX7: Spare
AUX8: Spare

R-01: S-BUS *
R-02: S-BUS *
R-03: Landing gear signal input
R-04: Brake signal input
R-05: Navigation light signal input
R-06: Afterburner light signal input

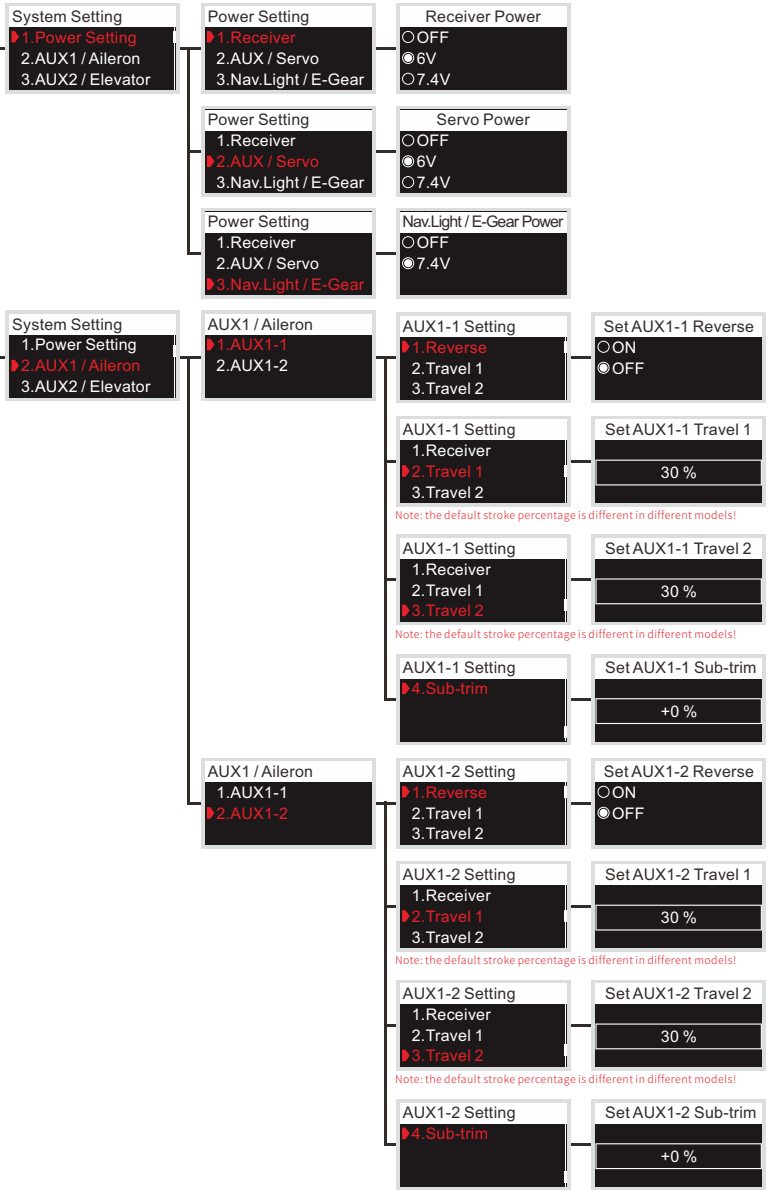
R-07: AUX-1 Aileron Signal Input
R-08: AUX-2 Elevator Signal Input
R-09: AUX-3 Rudder Signal Input
R-10: AUX-4 Flap Signal Input
R-11: AUX-5 Spare Signal Input
R-12: AUX-6 Throttle Signal Input
R-13: AUX-7 Spare Signal Input
R-14: AUX-8 Spare Signal Input

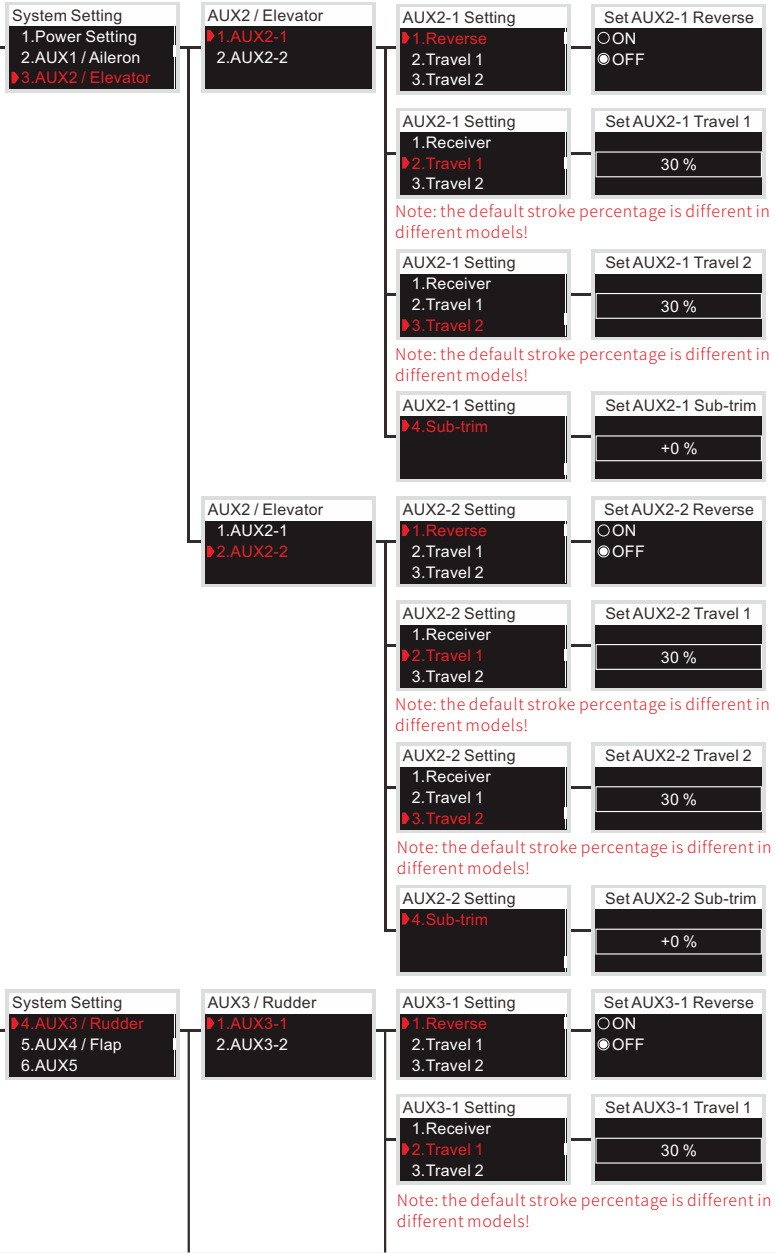
*R01 & R02 is S-Bus signal parallel interface

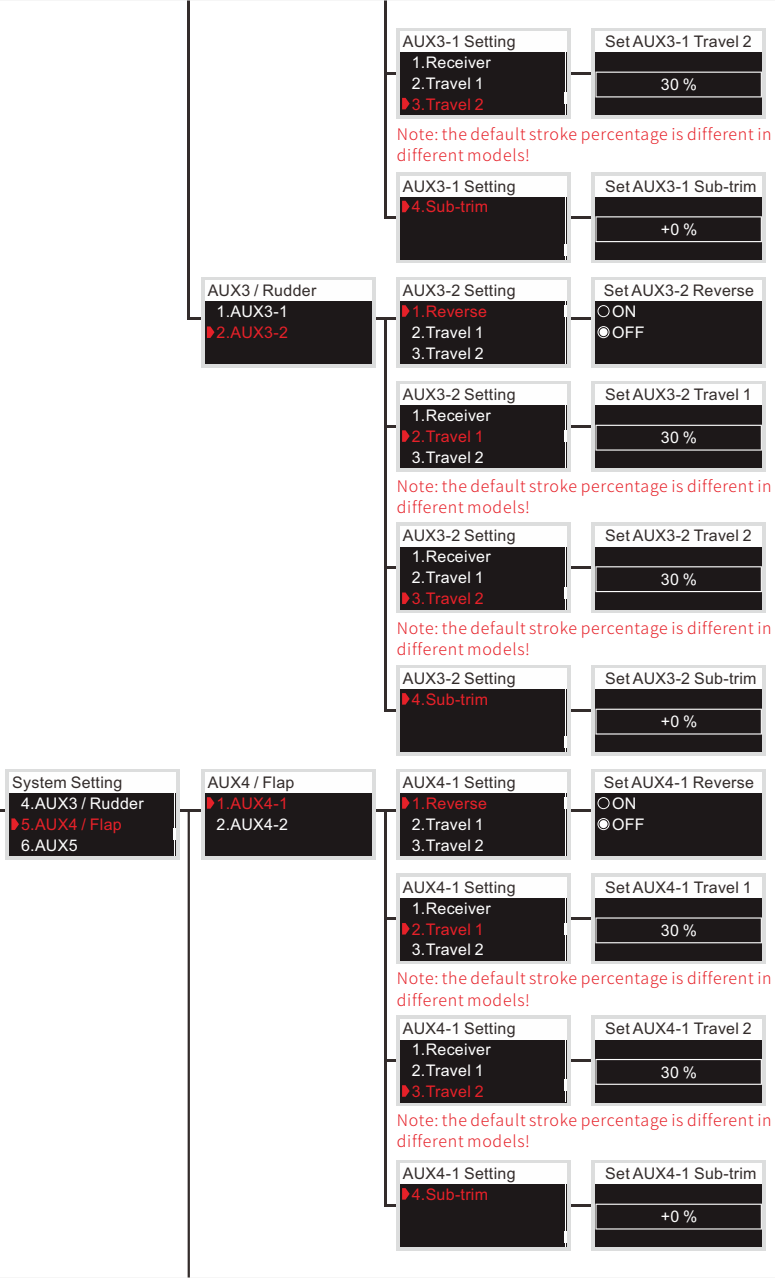
*This patch cord includes conventional patch cord and S-BUS patch cord

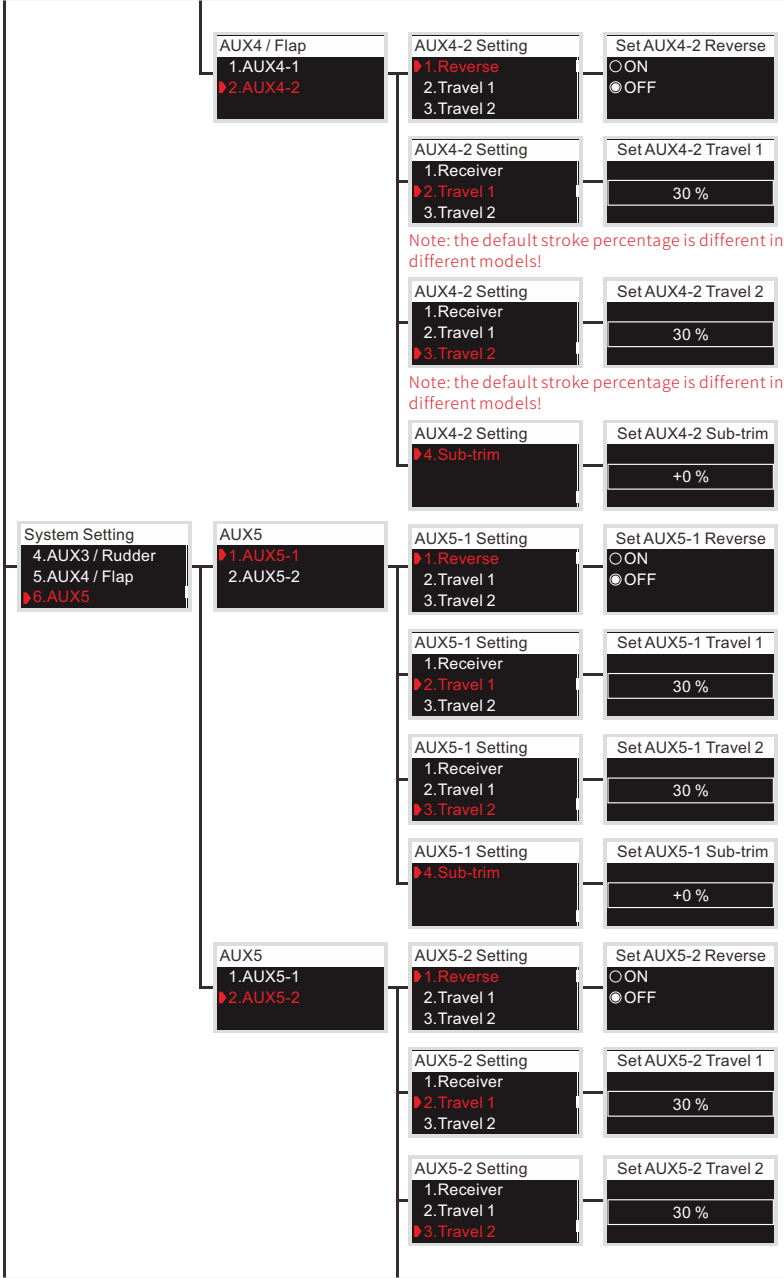


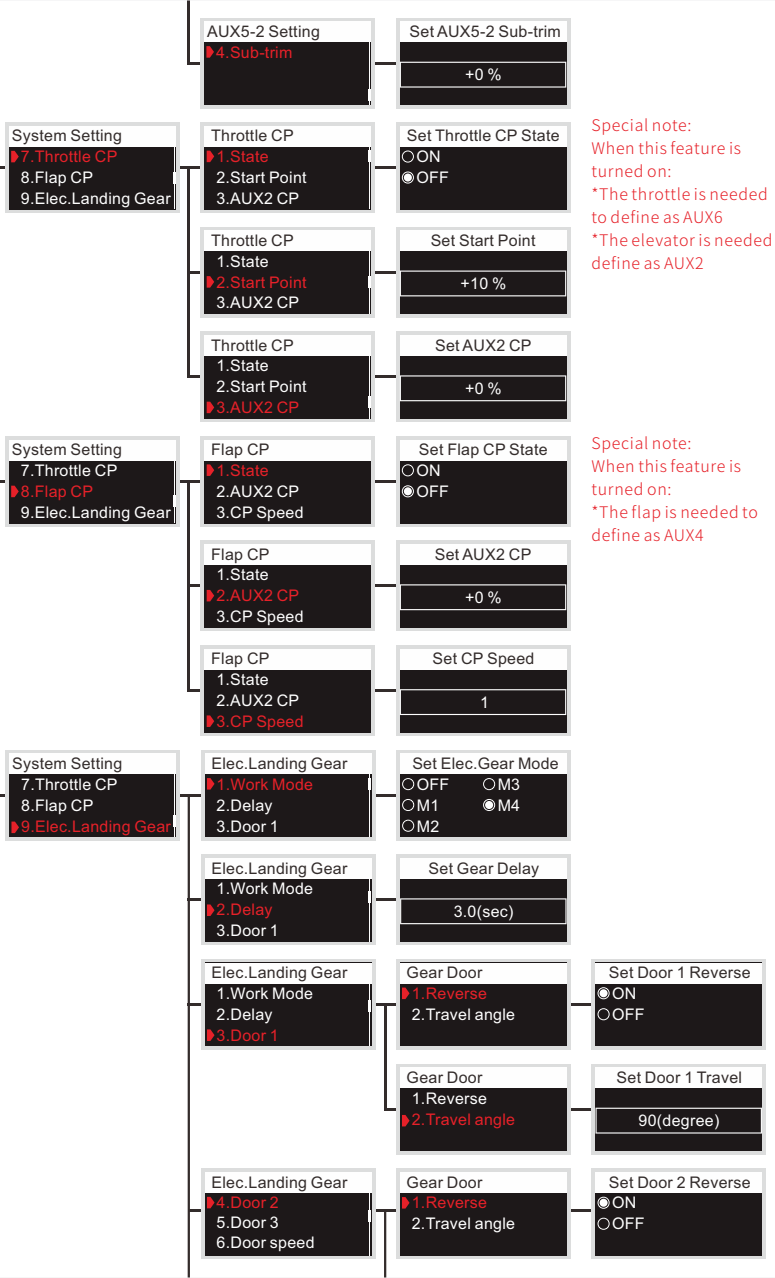
Menu

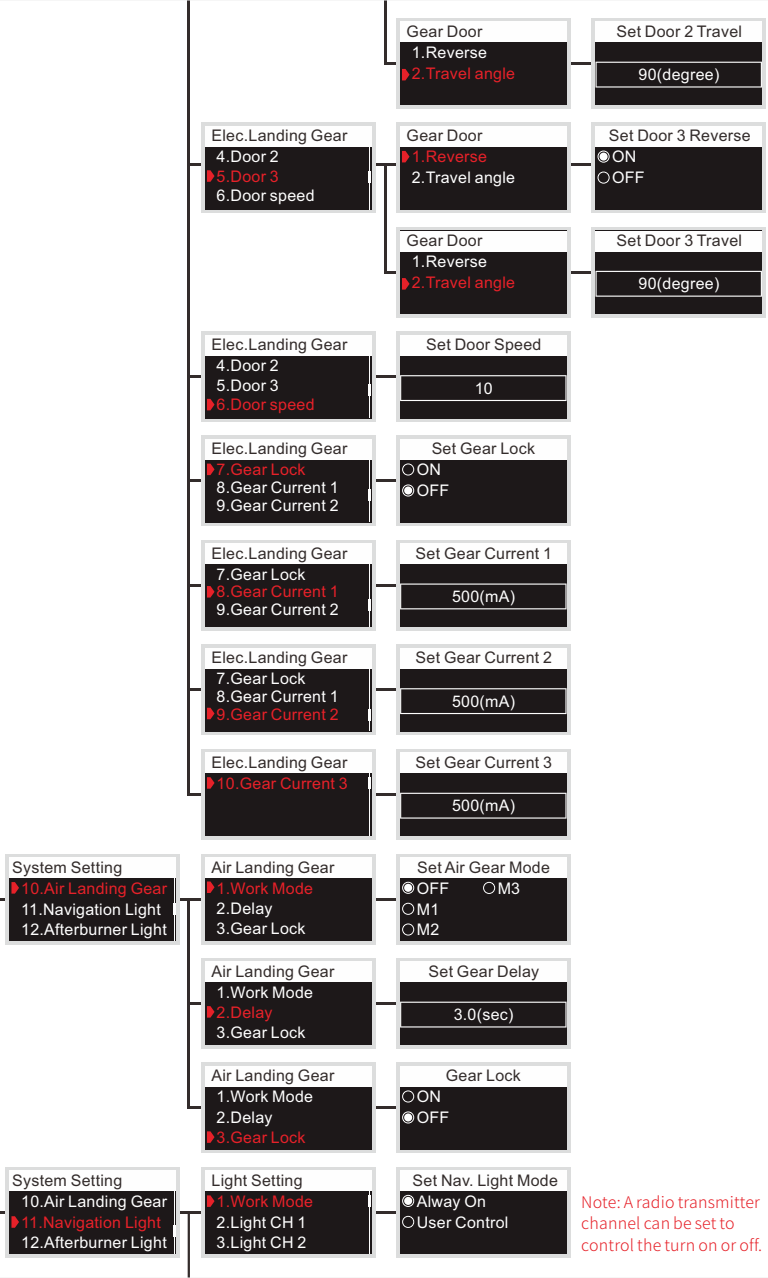

System Setting
1.Power Setting
2.AUX1 / Aileron
3.AUX2 / Elevator
Power Setting
1.Receiver
2.AUX / Servo
3.Nav.Light / E-Gear
Receiver Power
OFF
6V
7.4V
Power Setting
1.Receiver
2.AUX / Servo
3.Nav.Light / E-Gear
Servo Power
OFF
6V
7.4V
Power Setting
1.Receiver
2.AUX / Servo
3.Nav.Light / E-Gear
Nav.Light / E-Gear Power
OFF
7.4V
System Setting
1.Power Setting
2.AUX1 / Aileron
3.AUX2 / Elevator
AUX1 / Aileron
1.AUX1-1
2.AUX1-2
AUX1-1 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX1-1 Reverse
ON
OFF
AUX1-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX1-1 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX1-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX1-1 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX1-1 Setting
4.Sub-trim
Set AUX1-1 Sub-trim
+0 %
AUX1 / Aileron
1.AUX1-1
2.AUX1-2
AUX1-2 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX1-2 Reverse
ON
OFF
AUX1-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX1-2 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX1-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX1-2 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX1-2 Setting
4.Sub-trim
Set AUX1-2 Sub-trim
+0 %


System Setting
1.Power Setting
2.AUX1 / Aileron
3.AUX2 / Elevator
AUX2 / Elevator
1.AUX2-1
2.AUX2-2
AUX2-1 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX2-1 Reverse
ON
OFF
AUX2-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX2-1 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX2-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX2-1 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX2-1 Setting
4.Sub-trim
Set AUX2-1 Sub-trim
+0 %
AUX2 / Elevator
1.AUX2-1
2.AUX2-2
AUX2-2 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX2-2 Reverse
ON
OFF
AUX2-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX2-2 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX2-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX2-2 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX2-2 Setting
4.Sub-trim
Set AUX2-2 Sub-trim
+0 %
System Setting
4.AUX3 / Rudder
5.AUX4 / Flap
6.AUX5
AUX3 / Rudder
1.AUX3-1
2.AUX3-2
AUX3-1 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX3-1 Reverse
ON
OFF
AUX3-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX3-1 Travel 1
30 %
Note: the default stroke percentage is different in different models!

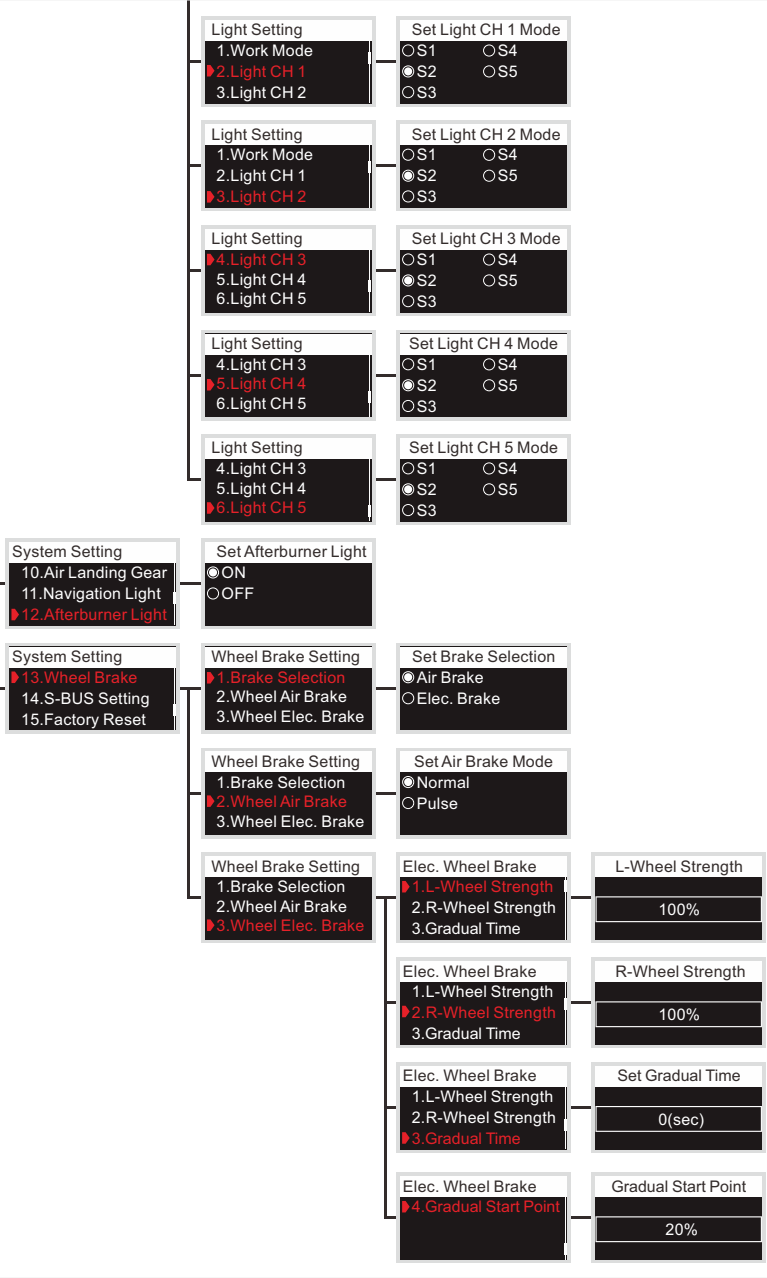

AUX3-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX3-1 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX3-1 Setting
4.Sub-trim
Set AUX3-1 Sub-trim
+0 %
AUX3 / Rudder
1.AUX3-1
2.AUX3-2
AUX3-2 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX3-2 Reverse
ON
OFF
AUX3-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX3-2 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX3-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX3-2 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX3-2 Setting
4.Sub-trim
Set AUX3-2 Sub-trim
+0 %
System Setting
4.AUX3 / Rudder
5.AUX4 / Flap
6.AUX5
AUX4 / Flap
1.AUX4-1
2.AUX4-2
AUX4-1 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX4-1 Reverse
ON
OFF
AUX4-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX4-1 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX4-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX4-1 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX4-1 Setting
4.Sub-trim
Set AUX4-1 Sub-trim
+0 %

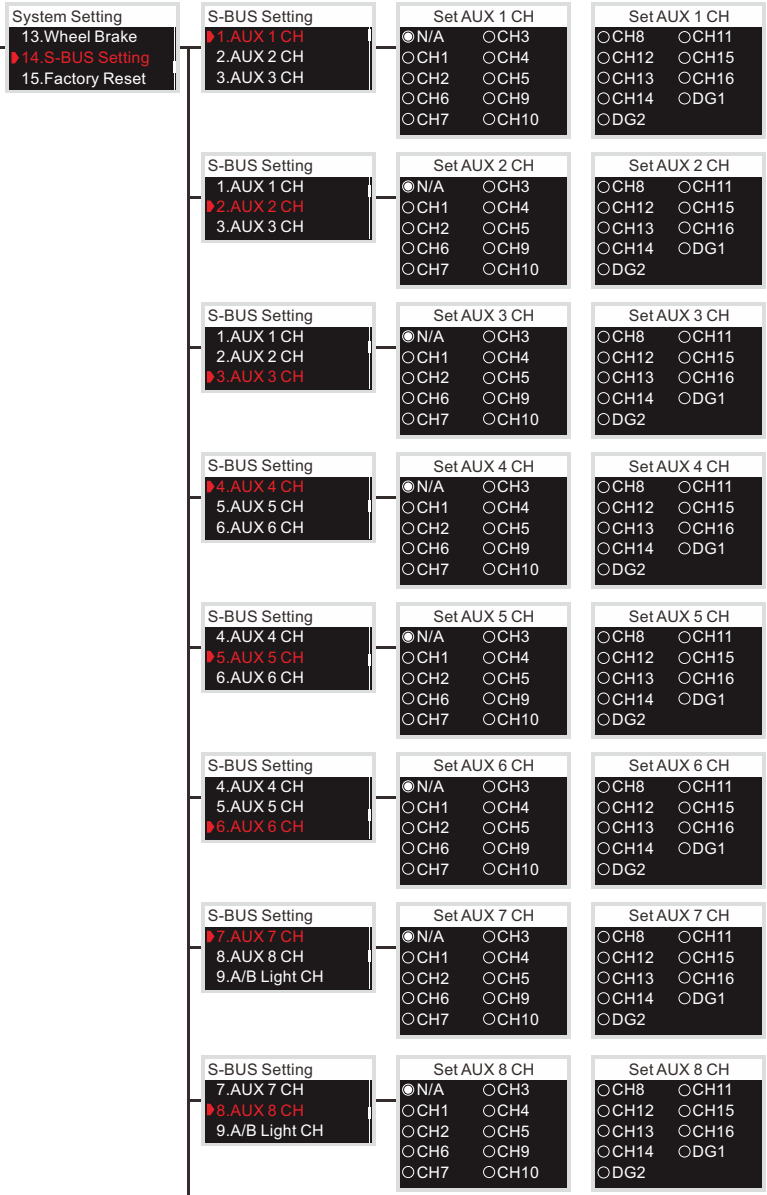

AUX4 / Flap
1.AUX4-1
2.AUX4-2
AUX4-2 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX4-2 Reverse
ON
OFF
AUX4-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX4-2 Travel 1
30 %
Note: the default stroke percentage is different in different models!
AUX4-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX4-2 Travel 2
30 %
Note: the default stroke percentage is different in different models!
AUX4-2 Setting
4.Sub-trim
Set AUX4-2 Sub-trim
+0 %
System Setting
4.AUX3 / Rudder
5.AUX4 / Flap
6.AUX5
AUX5
1.AUX5-1
2.AUX5-2
AUX5-1 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX5-1 Reverse
ON
OFF
AUX5-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX5-1 Travel 1
30 %
AUX5-1 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX5-1 Travel 2
30 %
AUX5-1 Setting
4.Sub-trim
Set AUX5-1 Sub-trim
+0 %
AUX5
1.AUX5-1
2.AUX5-2
AUX5-2 Setting
1.Reverse
2.Travel 1
3.Travel 2
Set AUX5-2 Reverse
ON
OFF
AUX5-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX5-2 Travel 1
30 %
AUX5-2 Setting
1.Receiver
2.Travel 1
3.Travel 2
Set AUX5-2 Travel 2
30 %

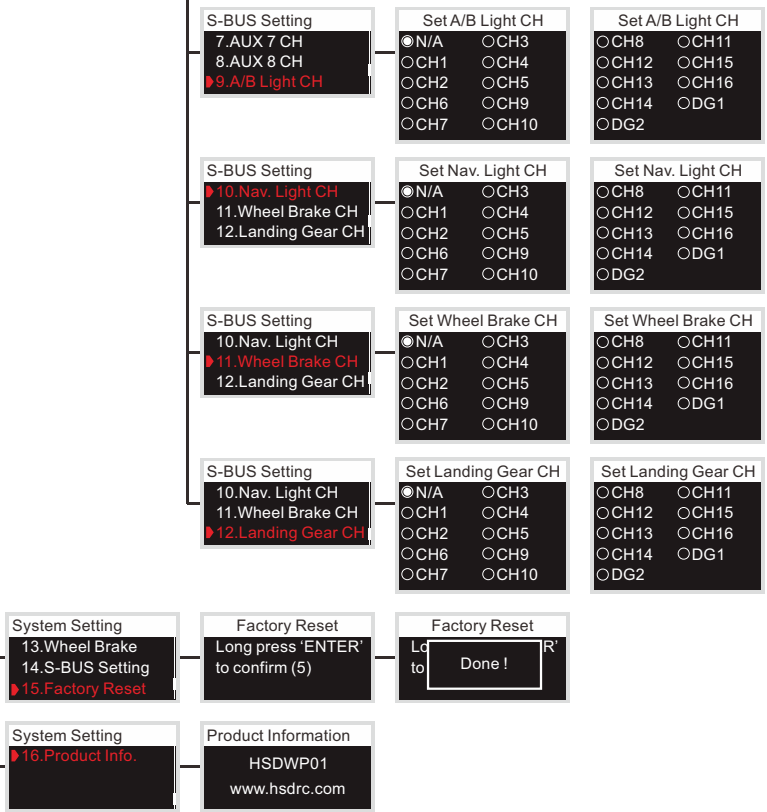

AUX5-2 Setting
4.Sub-trim
Set AUX5-2 Sub-trim
+0 %
System Setting
7.Throttle CP
8.Flap CP
9.Elec.Landing Gear
Throttle CP
1.State
2.Start Point
3.AUX2 CP
Set Throttle CP State
ON
OFF
Special note:
When this feature is turned on:
*The throttle is needed to define as AUX6
*The elevator is needed define as AUX2
Throttle CP
1.State
2.Start Point
3.AUX2 CP
Set Start Point
+10 %
Throttle CP
1.State
2.Start Point
3.AUX2 CP
Set AUX2 CP
+0 %
System Setting
7.Throttle CP
8.Flap CP
9.Elec.Landing Gear
Flap CP
1.State
2.AUX2 CP
3.CP Speed
Set Flap CP State
ON
OFF
Special note:
When this feature is turned on:
*The flap is needed to define as AUX4
Flap CP
1.State
2.AUX2 CP
3.CP Speed
Set AUX2 CP
+0 %
Flap CP
1.State
2.AUX2 CP
3.CP Speed
Set CP Speed
1
System Setting
7.Throttle CP
8.Flap CP
9.Elec.Landing Gear
Elec.Landing Gear
1.Work Mode
2.Delay
3.Door 1
Set Elec.Gear Mode
OFF
M3
M1
M4
M2
Elec.Landing Gear
1.Work Mode
2.Delay
3.Door 1
Set Gear Delay
3.0(sec)
Elec.Landing Gear
1.Work Mode
2.Delay
3.Door 1
Gear Door
1.Reverse
2.Travel angle
Set Door 1 Reverse
ON
OFF
Gear Door
1.Reverse
2.Travel angle
Set Door 1 Travel
90(degree)
Elec.Landing Gear
4.Door 2
5.Door 3
6.Door speed
Gear Door
1.Reverse
2.Travel angle
Set Door 2 Reverse
ON
OFF



Note: A radio transmitter channel can be set to control the turn on or off.


Light Setting
1.Work Mode
2.Light CH 1
3.Light CH 2
Set Light CH 1 Mode
S1 S4
S2 S5
S3
Light Setting
1.Work Mode
2.Light CH 1
3.Light CH 2
Set Light CH 2 Mode
S1 S4
S2 S5
S3
Light Setting
4.Light CH 3
5.Light CH 4
6.Light CH 5
Set Light CH 3 Mode
S1 S4
S2 S5
S3
Light Setting
4.Light CH 3
5.Light CH 4
6.Light CH 5
Set Light CH 4 Mode
S1 S4
S2 S5
S3
Light Setting
4.Light CH 3
5.Light CH 4
6.Light CH 5
Set Light CH 5 Mode
S1 S4
S2 S5
S3
System Setting
10.Air Landing Gear
11.Navigation Light
12.Afterburner Light
Set Afterburner Light
ON
OFF
System Setting
13.Wheel Brake
14.S-BUS Setting
15.Factory Reset
Wheel Brake Setting
1.Brake Selection
2.Wheel Air Brake
3.Wheel Elec. Brake
Set Brake Selection
Air Brake
Elec. Brake
Wheel Brake Setting
1.Brake Selection
2.Wheel Air Brake
3.Wheel Elec. Brake
Set Air Brake Mode
Normal
Pulse
Wheel Brake Setting
1.Brake Selection
2.Wheel Air Brake
3.Wheel Elec. Brake
Elec. Wheel Brake
1.L-Wheel Strength
2.R-Wheel Strength
3.Gradual Time
L-Wheel Strength
100%
Elec. Wheel Brake
1.L-Wheel Strength
2.R-Wheel Strength
3.Gradual Time
R-Wheel Strength
100%
Elec. Wheel Brake
1.L-Wheel Strength
2.R-Wheel Strength
3.Gradual Time
Set Gradual Time
0(sec)
Elec. Wheel Brake
4.Gradual Start Point
Gradual Start Point
20%

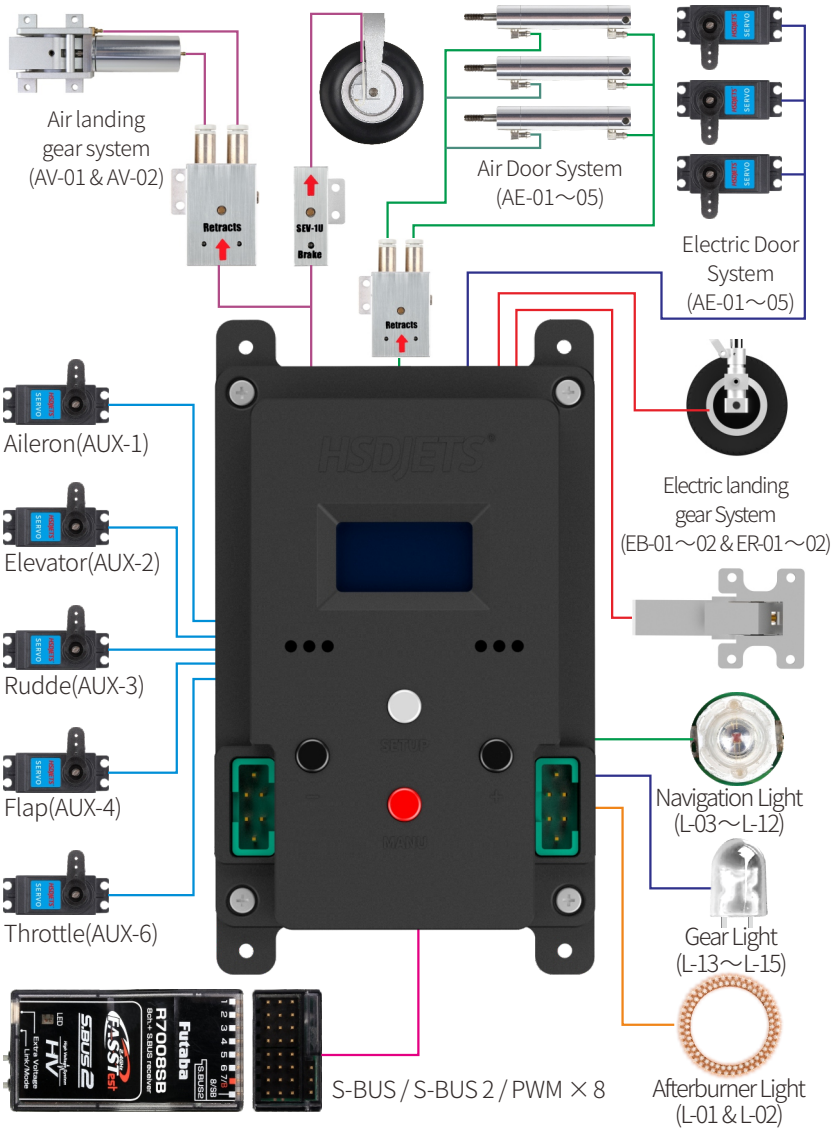

System Setting
13.Wheel Brake
14.S-BUS Setting
15.Factory Reset
S-BUS Setting
1.AUX 1 CH
2.AUX 2 CH
3.AUX 3 CH
Set AUX 1 CH
N/A
CH1
CH2
CH6
CH7
CH3
CH4
CH5
CH9
CH10
CH8
CH12
CH13
CH14
DG2
CH11
CH15
CH16
DG1
S-BUS Setting
1.AUX 1 CH
2.AUX 2 CH
3.AUX 3 CH
Set AUX 2 CH
S-BUS Setting
1.AUX 1 CH
2.AUX 2 CH
3.AUX 3 CH
Set AUX 3 CH
S-BUS Setting
4.AUX 4 CH
5.AUX 5 CH
6.AUX 6 CH
Set AUX 4 CH
S-BUS Setting
4.AUX 4 CH
5.AUX 5 CH
6.AUX 6 CH
Set AUX 5 CH
S-BUS Setting
4.AUX 4 CH
5.AUX 5 CH
6.AUX 6 CH
Set AUX 6 CH
S-BUS Setting
7.AUX 7 CH
8.AUX 8 CH
9.A/B Light CH
Set AUX 7 CH
S-BUS Setting
7.AUX 7 CH
8.AUX 8 CH
9.A/B Light CH
Set AUX 8 CH


S-BUS Setting
7.AUX 7 CH
8.AUX 8 CH
9.A/B Light CH
Set A/B Light CH
N/A CH3
CH1 CH4
CH2 CH5
CH6 CH9
CH7 CH10
Set A/B Light CH
CH8 CH11
CH12 CH15
CH13 CH16
CH14 DG1
DG2
S-BUS Setting
10.Nav. Light CH
11.Wheel Brake CH
12.Landing Gear CH
Set Nav. Light CH
N/A CH3
CH1 CH4
CH2 CH5
CH6 CH9
CH7 CH10
Set Nav. Light CH
CH8 CH11
CH12 CH15
CH13 CH16
CH14 DG1
DG2
S-BUS Setting
10.Nav. Light CH
11.Wheel Brake CH
12.Landing Gear CH
Set Wheel Brake CH
N/A CH3
CH1 CH4
CH2 CH5
CH6 CH9
CH7 CH10
Set Wheel Brake CH
CH8 CH11
CH12 CH15
CH13 CH16
CH14 DG1
DG2
S-BUS Setting
10.Nav. Light CH
11.Wheel Brake CH
12.Landing Gear CH
Set Landing Gear CH
N/A CH3
CH1 CH4
CH2 CH5
CH6 CH9
CH7 CH10
Set Landing Gear CH
CH8 CH11
CH12 CH15
CH13 CH16
CH14 DG1
DG2
System Setting
13.Wheel Brake
14.S-BUS Setting
15.Factory Reset
Factory Reset
Long press 'ENTER'
to confirm (5)
Factory Reset
Done !
System Setting
16.Product Info.
Product Information
HSDWP01
www.hsdrc.com

Sequential action description

Model 1	Model 2	Model 3	Model 4
D1～D3 - Open	D1～D3 - Open	D1～D3 - Open	D1～D3 - Open
Delay - xx Sec	Delay - xx Sec	Delay - xx Sec	Delay - xx Sec
L/G - Down	L/G - Down	L/G - Down	L/G - Down
Delay - xx Sec	Delay - xx Sec	Delay - xx Sec	Delay - xx Sec
L/G - Lock	L/G - Lock	L/G - Lock	L/G - Lock
L/G - Lock	Door 1 - Close	Door 1 - Close	D1～D2 - Close
⊘	⊘	⊘	⊘
L/G - Unlock	Door 1 - Open	Door 1 - Open	D1～D2 - Open
Delay - xx Sec	L/G - Unlock	L/G - Unlock	L/G - Unlock
L/G - Up	Delay - xx Sec	Delay - xx Sec	Delay - xx Sec
Delay - xx Sec	L/G - Up	L/G - Up	L/G - Up
D1～D3- Close	Delay - xx Sec	Delay - xx Sec	Delay - xx Sec
	D1～D3- Close	D1～D3 - Close	D1～D3 - Close

Installation Diagram



Packing list

MFC-2085×1

Signal line ×8

PWA2×12mm
Screw ×4

Manual×1

Selection1

T Plug Power Wire ×2

Selection2

XT60 Plug Power Wire ×2

扫码关注，谢谢支持！

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