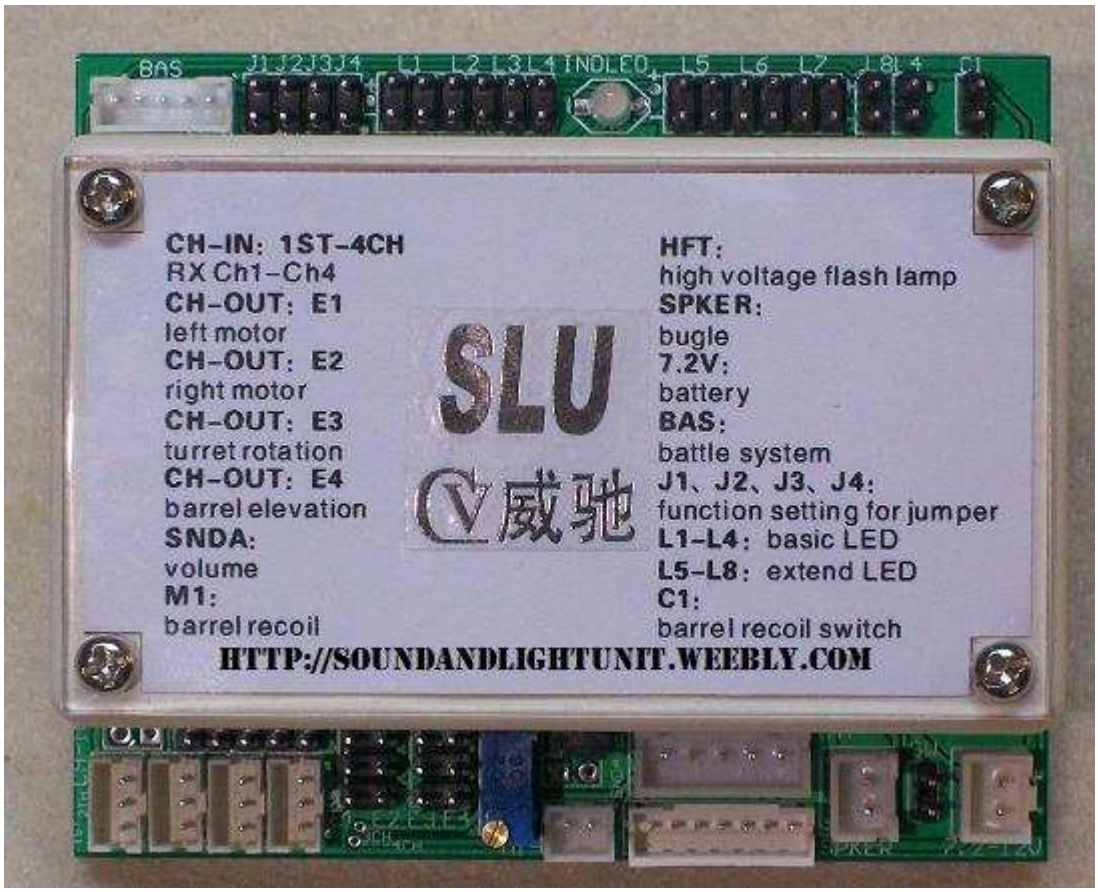
SLU SOUND AND LIGHT UNIT

INSTRUCTION MANUAL V4



Note: Before you begin installation, read the entire manual. Watch all the videos provided. If you have a problem or difficulty with your installation, please contact us through our website: http://soundandlightunit.weebly.com/

Warning:

SLU and ESC do not Support hot plug!

Don't unplug or plug any connector when power is ON.

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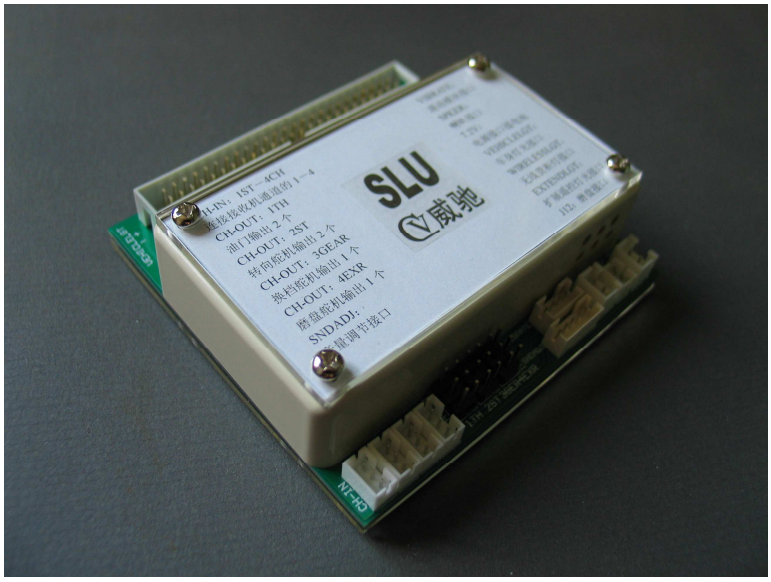
http://soundandlightunit.weebly.com/

Working environment

- Voltage range: 6.5V-12V. It can work with NIMH, LIPO battery. DO NOT user battery higher than 12V
- DO NOT user a battery higher than 12V!
- Temperature Range : -15C ~ 70C
- Audio output：when using 4ohm speaker, the average output power of 8W, maximum output is 15W.

ITEM LIST (The stuff included in your SLU package)

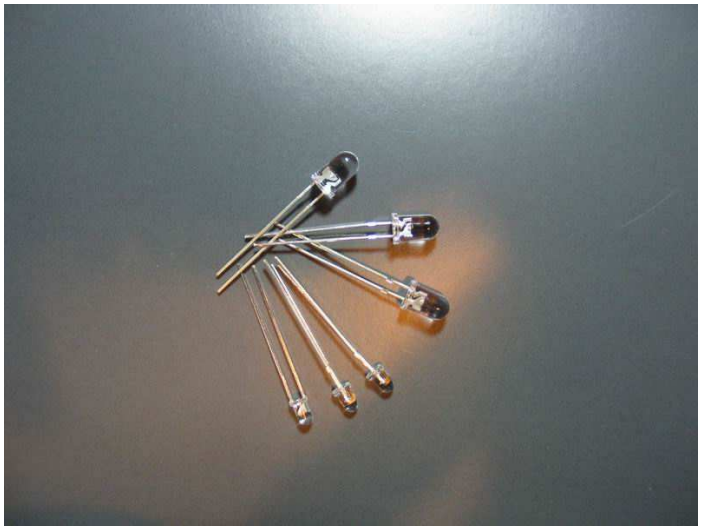
SLU sound unit



Basic wire set for lights

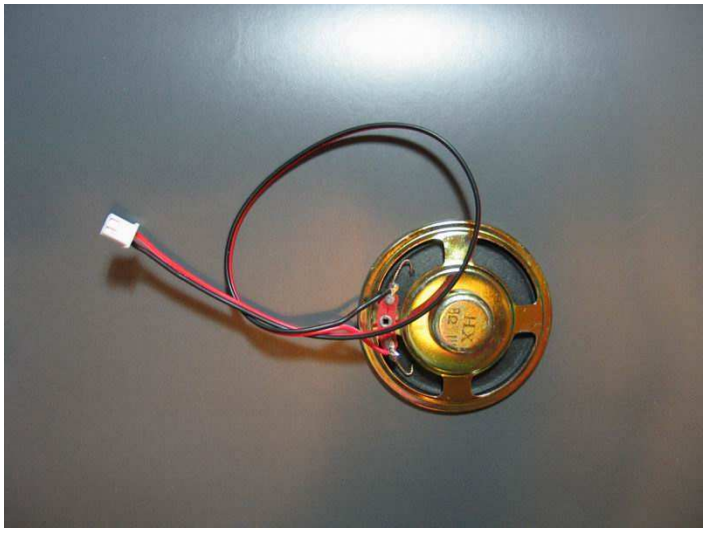
This wire set is used to connect LEDs with SLU sound unit

Basic LED set for lights



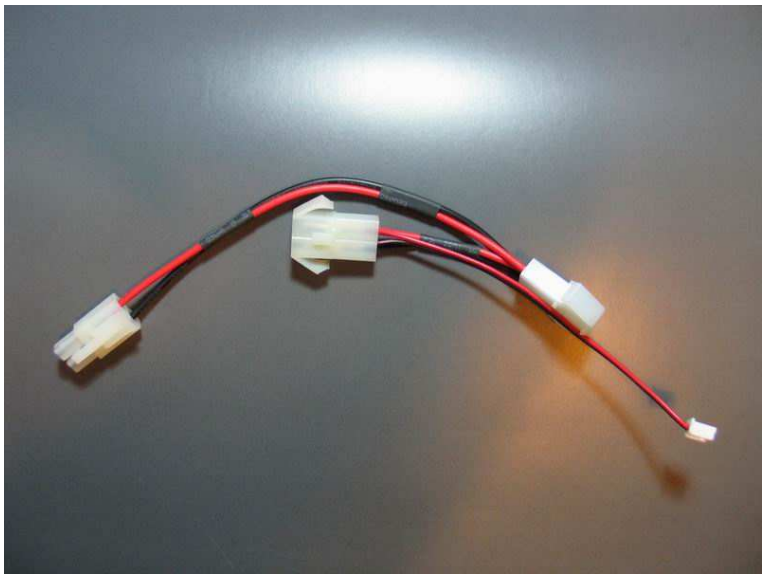
In SLU unit package only includes basic wire and LED set which has following parts:
Head Light x2; Real Light x2 (small); Main gun light x1 ;Machine gun light x1 (small)

Speaker



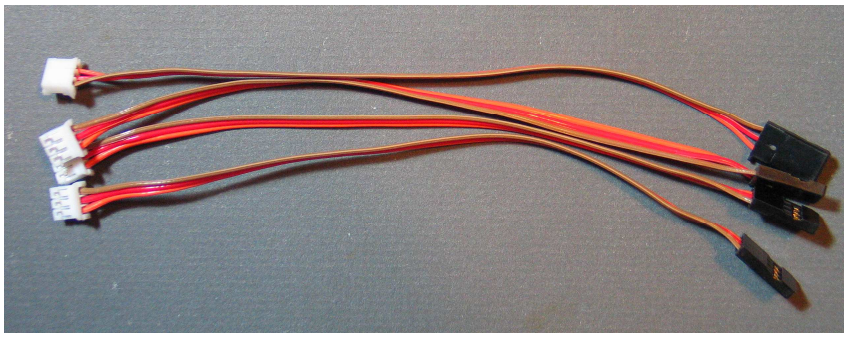
8 Ohm 1W speaker included.
User can use another speaker, but pay attention to speaker do not exceed 10w, impedance not less than 3 ohm

Battery connector



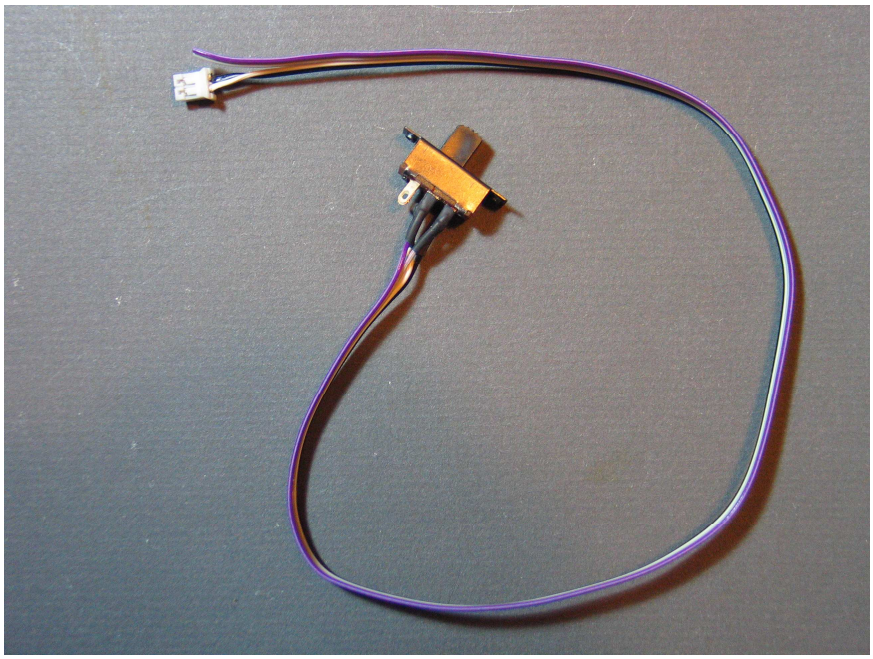
This connector is used to connect battery with ESC and SLU sound unit

Radio receiver connector



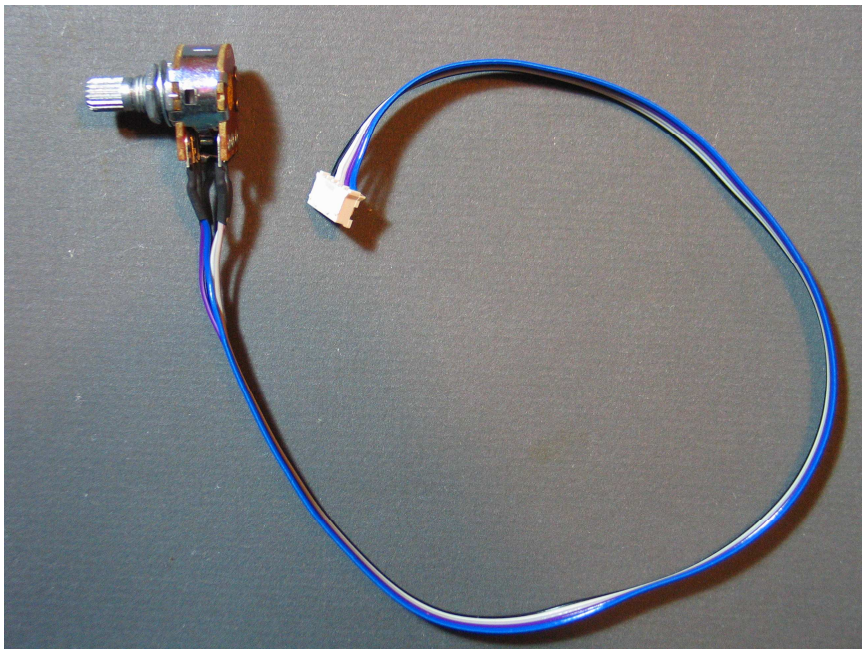
These cables are used to connect four channel of radio receiver with signal input socket (CH-IN).

Power switch



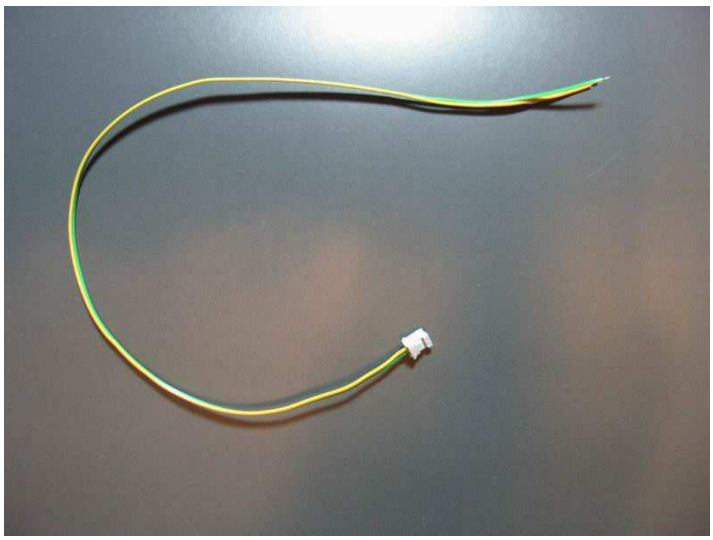
Connect this switch to power switch socket (SW) on SLU.

Volume regulator



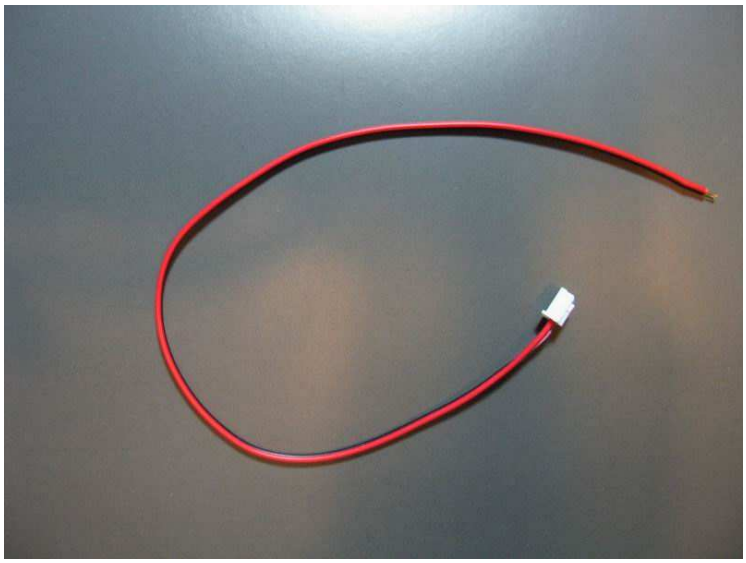
Connect with Volume adjustment socket (SNDA) on SLU.

Wire set for barrel recoil micro switch



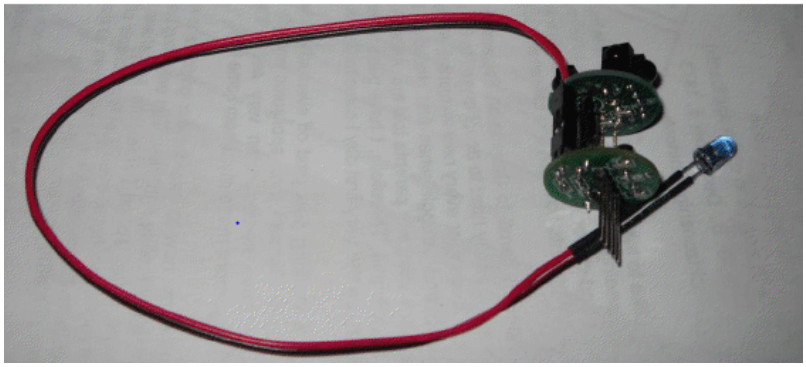
This cable is used to connect SLU with the micro-switch on barrel recoil system
The SLU socket for this cable is C1. The micro-switch is active only when the J3 is off, SLU is working in barrel recoil mode.

Wire set for barrel recoil or airsoft motor



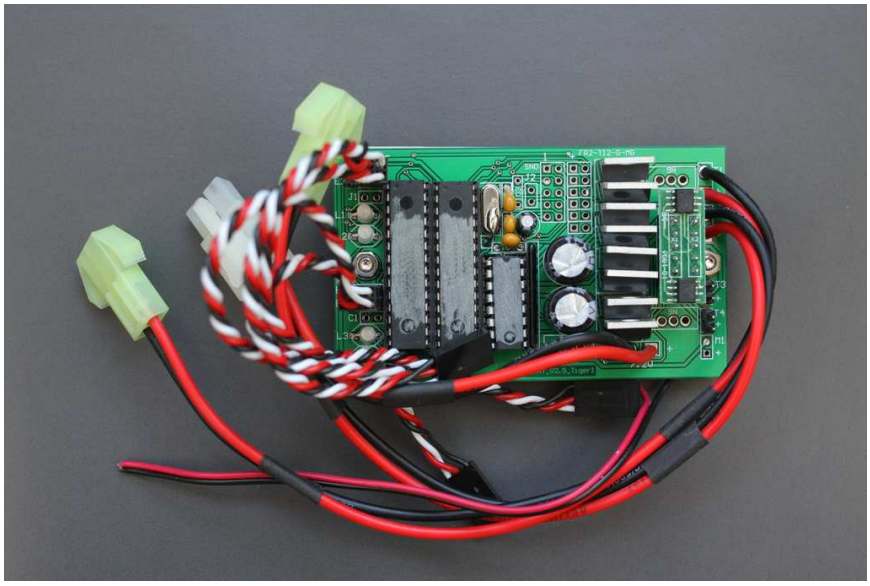
This cable is used to connect SLU with barrel recoil and airsoft motor

IR battle system



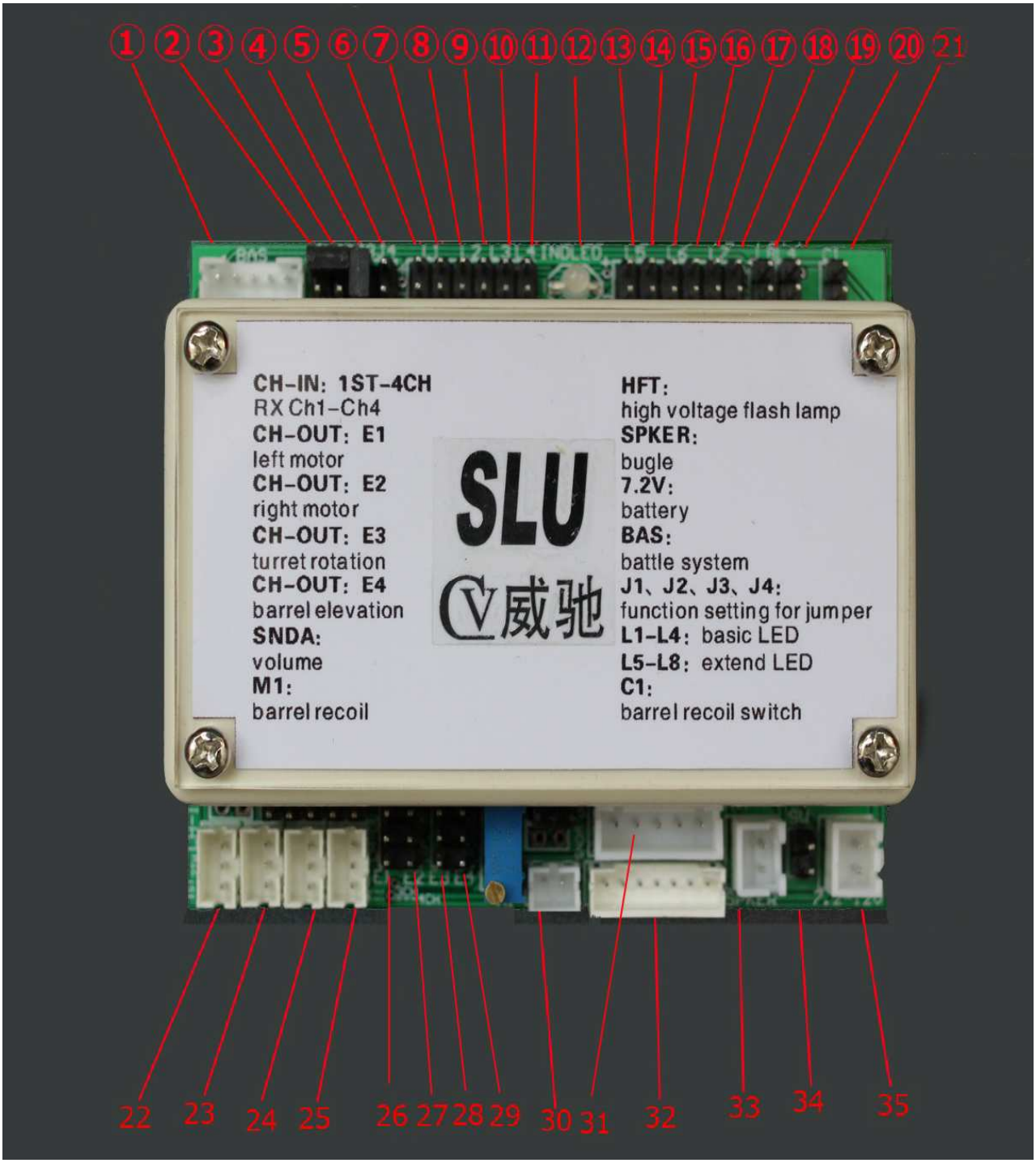
Connect with IR battle socket (BAS) on SLU

Electronic speed controller 4channel



Connect with SLU output socket (E1-E4) to control the motors.

Socket and connector list



1) Socket for IR battle system (BAS)

2) Setting Jumper1 (J1)
   Connect with the blue switch
   ON: transmitter Calibration mode and mp3 output Speaker.
   OFF: normal operation mode
3) Setting Jumper2 (J2)
   This jumper should be opened
4) Setting Jumper3 (J3)
   Shorted: use for airsoft gun
   Opened: use for barrel recoil. Then micro switch for barrel recoil should be connected to Socket 21.
5) Setting Jumper4 (J4)
   Shorted: deactivate body recoil function
   Opened: activate body recoil function
   Do Not change the jumper When Main power is ON

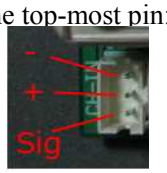
6) Socket for headlight #1 (L1)
7) Socket for headlight #2 (L1)
8) Socket for rear light #1 (L2)
9) Socket for rear light #2 (L2)
10) Socket for main gun flash light (L3)
    This socket cannot connect HL high voltage xenon flash

11) Socket for machine gun light #1 (L4)
12) Status indicator (LED)
    this indicator is very important.
    If green light is on, it means SLU unit is normal operation.
    If red light is on, it means SLU doesn't work properly.

13) Socket for left turn signal #1(L5) (optional)
14) Socket for left turn signal #2 (L5)(optional)
15) Socket for right turn signals #1 (L6) (optional)
16) Socket for right turn signals #2 (L6) (optional)
17) Socket for reversing Light #1(L7) (optional)
18) Socket for reversing Light #2 (L7)(optional)
19) Socket for laser pointer (L8)(optional)
20) Socket for machine gun light #2 (L4)
21) Socket for barrel recoil micro switch (C1)
22) Receiver Socket for CH1 (CH-IN) - Turning control
23) Receiver Socket for CH2 (CH-IN) – Throttle control
24) Receiver Socket for CH3 (CH-IN) – function selection
25) Receiver Socket for CH4 (CH-IN) – function execution

NOTE: Please pay attention to the positive and negative charge,
Starting at the top-most pin:

1. -
2. +
3. Sig



26) ESC connector for Left Drive Motor (CH-OUT：E1)

27) ESC connector for Right Drive Motor (CH-OUT：E2)

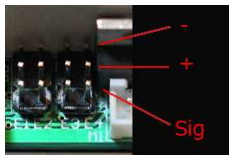
28) ESC connector for Turret Motor (CH-OUT：E3)

29) ESC connector for Gun Elevation Motor (CH-OUT：E4)

Please refer to section

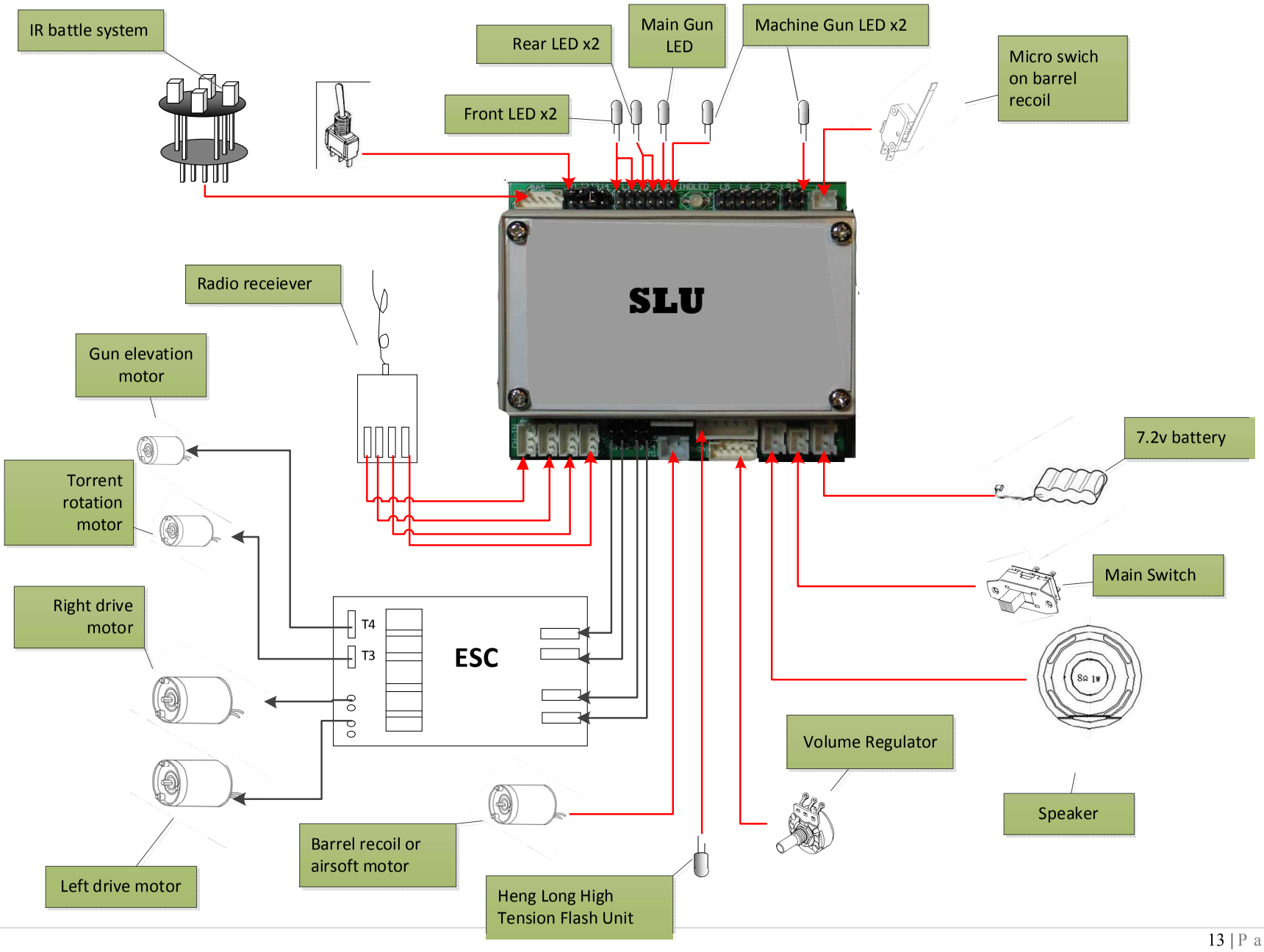
NOTE: Please pay attention to the positive and negative charge,
Starting at the top-most pin:

1. -
2. +
3. Sig



30) Socket for Barrel Recoil or Airsoft Motor （M1）

31) Socket for Heng Long High Tension Flash Unit (HTF)
32) Socket for Volume Regulator (SNDA)
33) Socket for Speaker (speaker)
34) Socket for Main Power Switch (SW)
35) Socket for 7.2v power

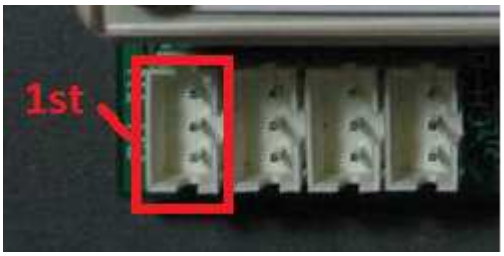

IR battle system
Rear LED x2
Main Gun LED
Machine Gun LED x2
Micro swich on barrel recoil
Front LED x2
SLU
Radio receiever
Gun elevation motor
Torrent rotation motor
7.2v battery
Main Switch
Right drive motor
T4
T3
ESC
8Ω 1W
Volume Regulator
Speaker
Barrel recoil or airsoft motor
Left drive motor
Heng Long High Tension Flash Unit

Transmitter Calibration

Before you install SLU in your tank, we highly recommend you calibrate your transmitter first. If you don't calibrate transmitter, SLU may not work properly.

Calibration procedure:

1) Short the J1 jumper in the SLU, connect one of the receiver channel with the CH-IN 1st socket in the SLU. Do not connect other channels



CH-IN 1st

2) Switch on the transmitter.

3) Switch on the SLU.

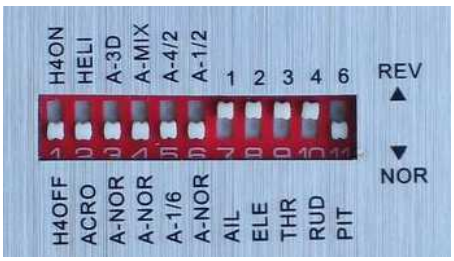
4) You will hear a "DONG" tone over the speaker that will tell you the SLU is working in calibration mode.

5) Adjust the trim and rev switch on the transmitter, by doing the following:

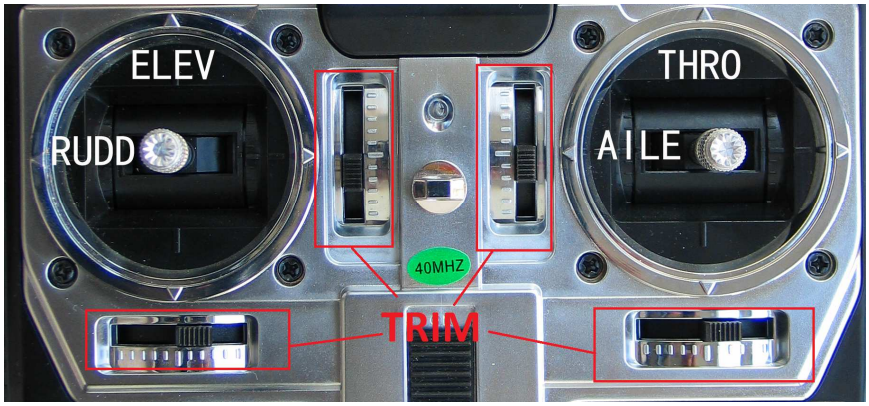
-Stick of the channel in a center position. The status indicator light should flashes red and green alternately. If it is not, adjust the trim of 1st channel.

-Stick of the channel in the up (left) position, the status indicator light flashes green, if the red light flashes, you need to change the REV-NOR switch on the transmitter

-Stick of the channel in the down(or right) position, the status indicator light flash red, if the green light flashes, then you need change the REV-NOR switch on the transmitter.



REV-NOR Switch



Trim

6) Switch off the SLU when you have completed calibration of the channel. Connect another channel with CH-IN 1st socket; repeat the step 2, 3, 4 and 5, until all the four channels are calibrated.

7) After the calibration, turn off the SLU power, open the J1 jumper, SLU will go back normal mode.

Connection with SLU, receiver and ESC

SLU provides four input channels which need be connected with four channel of receiver. We will introduce one connection mode in this section; you can adjust it by yourself. In most case, there are four main channels in transmitter.

ELEV, RUDD, THRO, AILE, as the follow figure shows.

The relation of the channel between the radio and receiver will be

Channel one --> AILE

Channel two --> ELEV

Channel three --> THRO

Channel four --> RUDD

SLU has 4 input sockets.

From left,

1CH is turn signal input

2CH is throttle signal input

3CH is function select signal input

4CH is function operation signal input

Our recommend connection is

1) Connect the ALILE channel (channel one) with 1st socket. Use AlLE channel to control the turn direction of the tank.

2) Connect the ELEV channel with 2th socket, use ELEV channel to control the tank forward and reverse movement.

3) Connect the THRO with 3th socket, use THRO channel to choose the operation. Such as, turn on/off the light, fire the main gun etc.

Note: we highly recommend you a choose channel without an auto-center to connect 3CH.

4) Connect the RUDD channel with 4th socket. Use RUDD channel to control the function you choose by using THRO channel.

Output connection:

Output socket E1 and E2 is connected to ESC for left and right motors

Output socket E3 is connected to ESC for turret motors

Output socket E4 is connected to ESC for main gun elevation motors.

If you are using default ESC of SLU, you just connect it as follow,

E1 of SLU → E1 input of ESC

E2 of SLU → E2 input of ESC

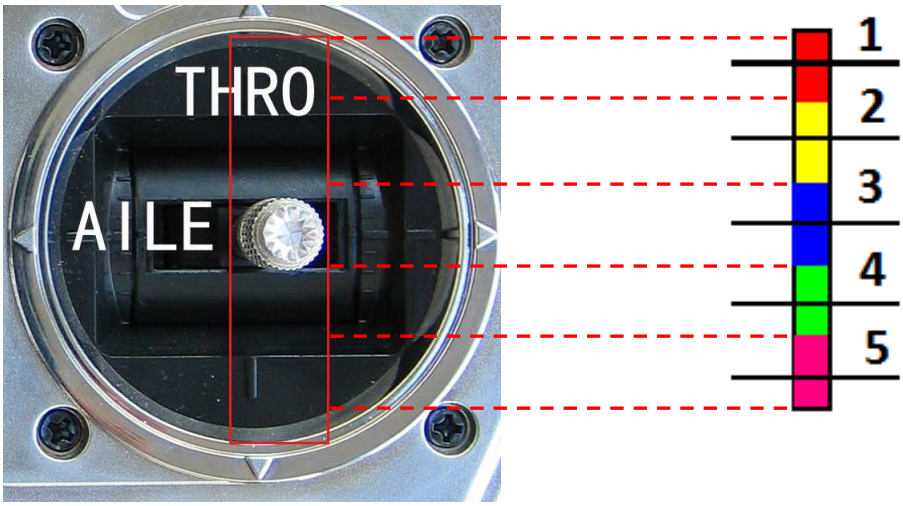
E3 of SLU → E3 input of ESC

E4 of SLU → E4 input of ESC

How to use transmitter

The transmitter has four channels. Two channels are used to control throttle and steering and two channels control of the other seven functions. In this section we will introduce how to use the transmitter to control all the functions of SLU.
Note: all the following instructions are based on the connection we introduced in the above section. If you change the connection order, the operation will be changed as well.

As we described in the above section, we use THRO channel (right hand) to select the operations. We divided the range of five operation area as shown below.



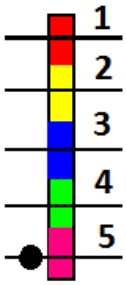
1) Red Area: Fire main gun
2) Yellow Area: Barrel elevation
3) Blue Area: turret rotation
4) Green Area: Light control
5) Pink Area: Start and stop the Engine, Fire Machine Gun.

1) Start and shut the engine

Push stick 1 from the center position to the bottom (area 5) then steer stick 1 to the left. Steer the stick 1 back the center, when you can hear the engineer voice.

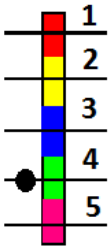
To shut down the engine follow the same operation above.

2) Fire the machine gun,



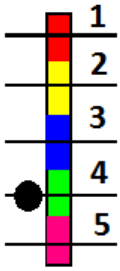
Push stick 2 to the bottom (area 5), then steer stick 1 to right, the machine gun light will flash and sound can be heard from the speaker.

3) Play the internal music



Push stick 2 to area 4, then steer stick 1 to left. The laser pointer will be turned on if it is connected with L8 pins of SLU. It will be turn off when the stick one back to the center position.

4) Turn on off the light.



Put the stick 2 to area 4, and then push the stick 1 to the right which will turn on/off the lights.
Push stick 1 to right first time, front light will be on,
Back to center and push stick 1 to right second time, both front light and rear light will be on
Back to center and push stick 1 to right third time, front light off, rear light will be on.
Back to center and push stick 1 to right fourth time, both front and rear lights will be off.

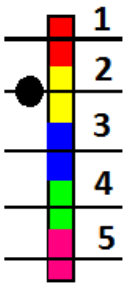
5) Turret rotation

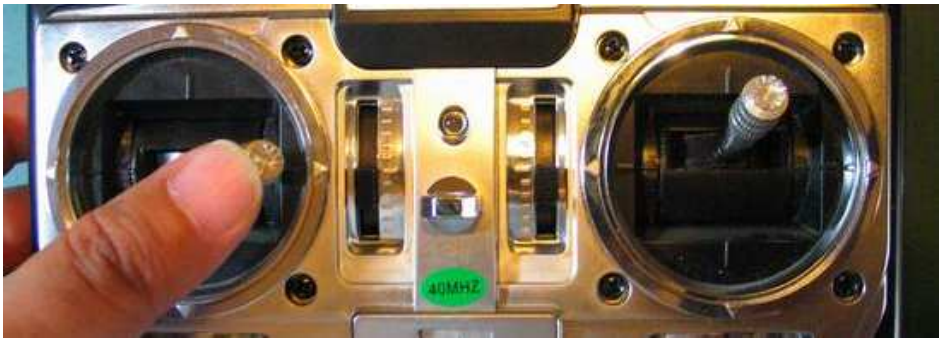
Keeping Stick 2 in the center position (area 3), push Stick 1 to the left and the Turret turns left

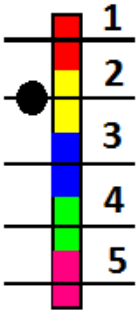
Keeping Stick 2 in the center position (area 3), push Stick 1 to the right and the Turret turns right

.

6) Barrel elevation

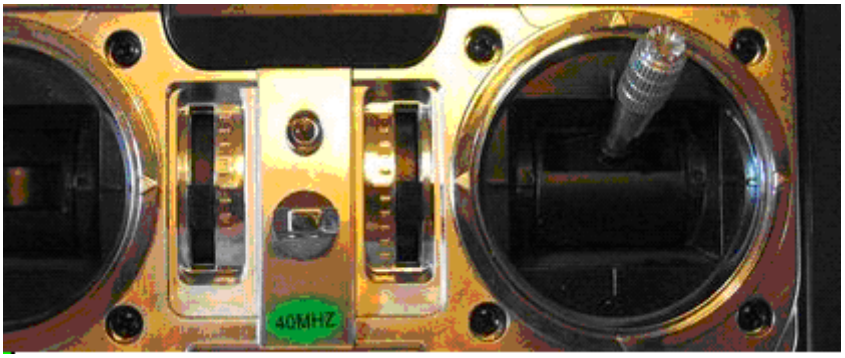


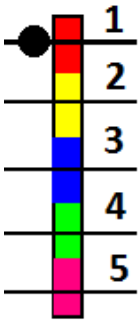




Move stick 2 to area 2, then push stick 1 to left and the barrel will go up. Push stick 1 to right and the barrel will down.

7) Fire Main Gun





Push the stick 2 to the top in area 1, Main gun will be fire, barrel recoil motor or airsoft motor will be started.

8) How to control the movement of tanks

Forward, reverse and brake.

Push stick 1 up and the tank will go forward.

Push stick 1 down and the tank will go in reverse or brake.

Turning

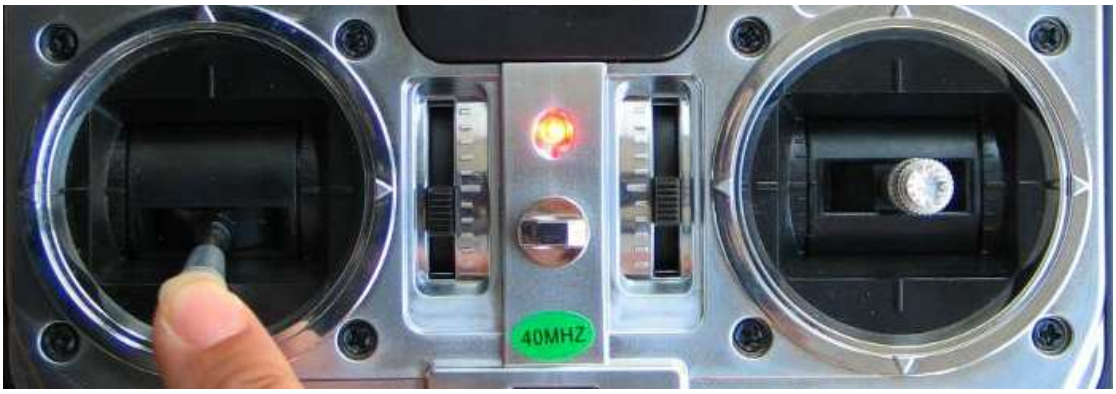
Steering stick 2 left or right will make the tank go left or right, no matter what position stick 1 is in.

Other Setting

Run straight setting

If you find your tank will not move forward straight, you can try the following procedure to fix it:
1) Switch on the transmitter
2) Push stick 1 to the top, keep this position and switch on the SLU at same time.
3) You will hear the “dong dong” sound that means SLU in the setting mode.
4) Bring stick 1 back to center.
5) If you tank goes left, move stick 2 right a little, if you tank goes right, move stick 2 left little. Then keep the position of stick 2, push stick 1 all the way down. You will hear a “dong” sound which means the setting has been saved.
6) Switch off the SLU then transmitter.
7) Repeat step 1 to 6, until your tank goes straight.

Track recoil movement.



SLU can set the speed of the Track recoil movement.

1) Switch on the transmitter,
2) Push stick 1 to the bottom, keep this position and switch on the SLU at same time.
3) You will hear the “dong” sound which means SLU is ready for setting.
4) Put stick 1 to center position.
5) Move the stick right. The further the stick right, the more track recoil movement you will get. Keep the position, and push stick 1 to the top, you will hear a “dong” sound which means the setting has been saved.
6) Switch off the SLU and transmitter.
7) If you want to go back to the factory default setting, repeat step 1 to 4. Then keep stick 2 in center position and push stick 1 to the top. You will hear a “done” sound again which means it has been set back to factory default setting.

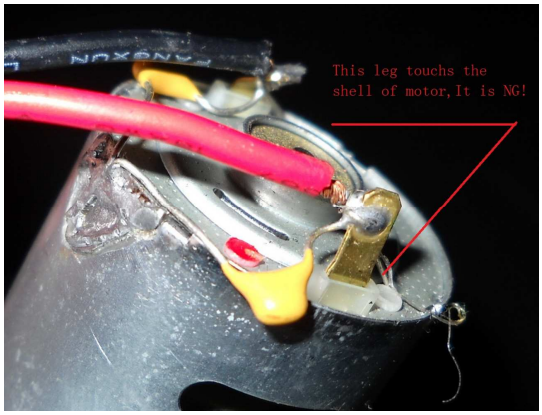
FAQ

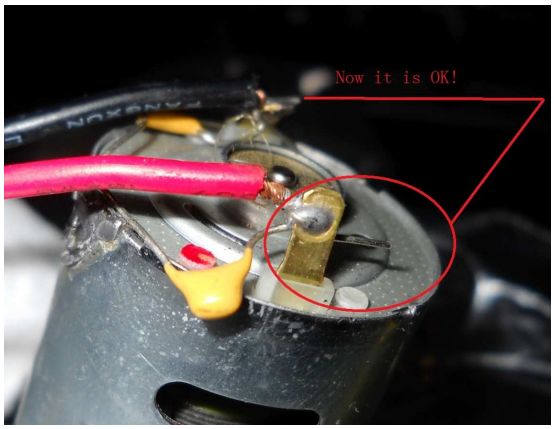
No	problem	solution
1	No sound	Replace or reconnect the battery.
2	The sound of SLU is stopped, when tank is running.	Check the battery, Replace or reconnect the battery.
3	Operations are different from the instructions.	Make sure that connection of SLU, receiver and ESC is same as the instruction.
4	After turning on the SLU, a noise can be heard from the speak, or status indicator turn red of off	The Voltage of SLU is unstable. Turn off the SLU and turn it on again after 5 seconds.
5	My Remote has power but does not program the tank	The remote needs to be coded: 1) Press the red key on the left bottom of the remote controller until the indicator light comes on. 2) Enter the code: 033 and the indicator light will turn off. 3) test it again,

Appendix

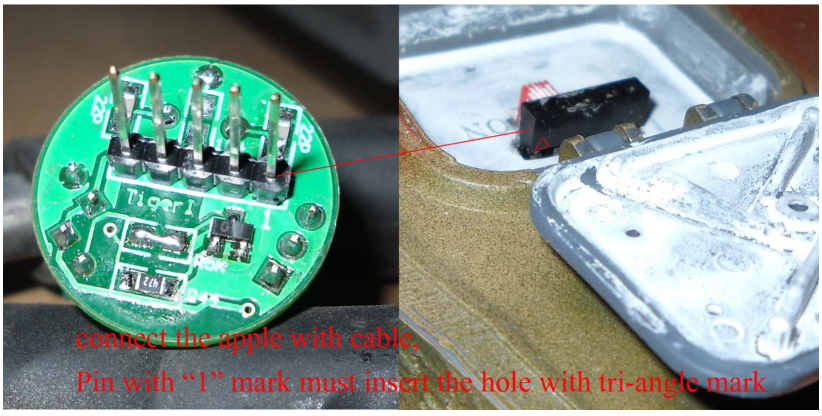
Check the legs of the capacitors on motor.

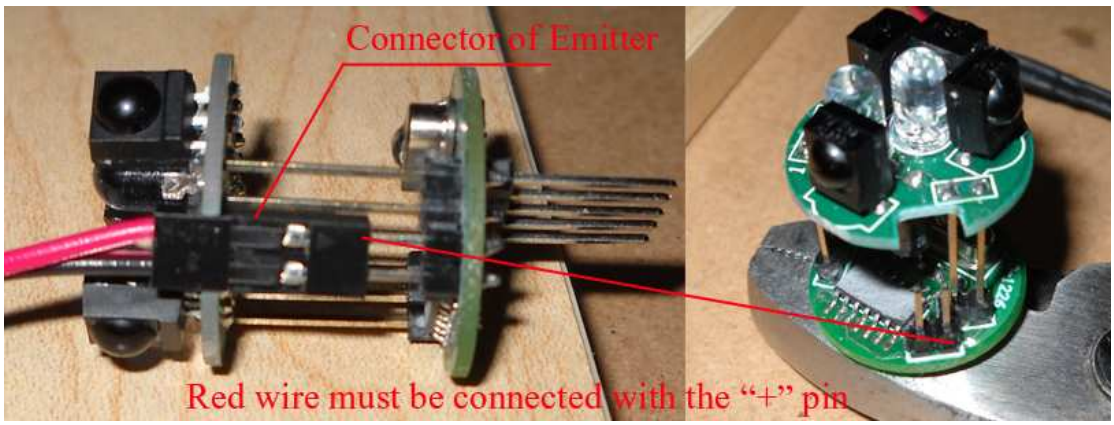
If the both legs of capacitor touch the shell of the motor. It will break the ESC. Please check the legs of the capacitors.



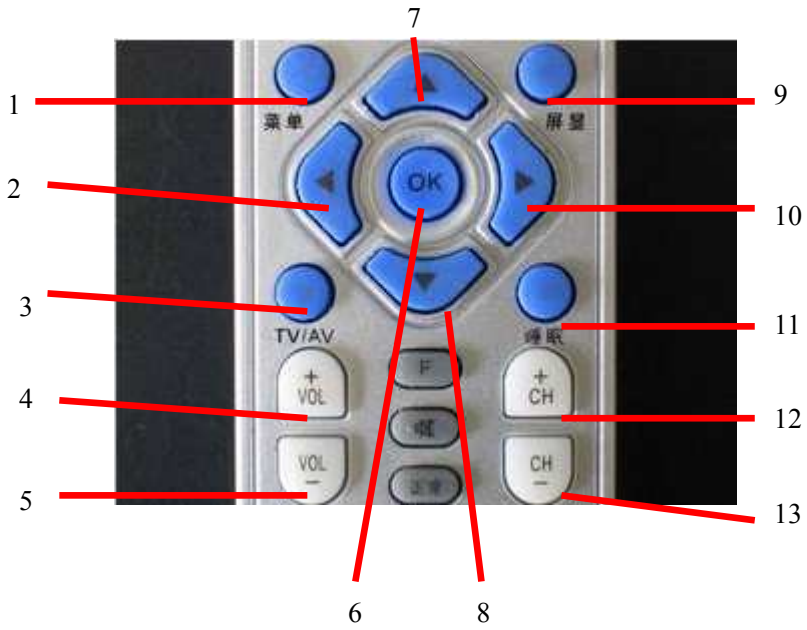


Connect IR battle System and IR emitter





Remote Programmer



1. Reload Ammunition and Repair the damage
2. Hit tank
3. Reload Ammunition
4. Add Ammunition. 10 rounds per time. Max 120 rounds (factory default is unlimited)
5. Set Ammunition to min. (20 rounds)
6. Save the setting
7. Set sensitive to 100% (factory default is 80%)
8. Low the sensitive
9. Set if reset tank auto or manual, choose “Auto” the yellow LED on IR apple flash one time, choose “Manual” the yellow LED on IR apple flash two time.
10. Set all setting to factory default
11. reset tank (when choose reset tank manually)
12. add damage capacity, one point per time, Max is 12 (factory is 6 hits)
13. set damage capacity to min (3 hits)

Note: Main gun loading time will be changed according to the change of damage capacity. Higher damage capacity means longer loading time. If damage capacity is 3 hits, loading time is 3 seconds. If damage capacity is 12 hits, loading time is 12 seconds

Example:

1) Set back to factory default.

   Press 10 button, and then press the 6 key to save the setting.

2) Set Ammunition to 40 rounds.
   Press 5 button set ammunition to 20 rounds, then press 4 button 2 times to add another 20 rounds. Press the 6 button to save the setting
3) Set damage capacity to 8 hits
   Press 13 button set damage capacity to 3 hits, then press 12 button 5 times to add another 5 hits. Press the 6 button to save the setting

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