

HNT-3

3-Channel 2.4GHz FHSS
Proportional Radio System

INSTRUCTION MANUAL



DIRECT SEQUENCE
2.4GHz
RADIO

HongNor

DIGITAL
PROPORTIONAL
R/C SYSTEM

CE ! FC

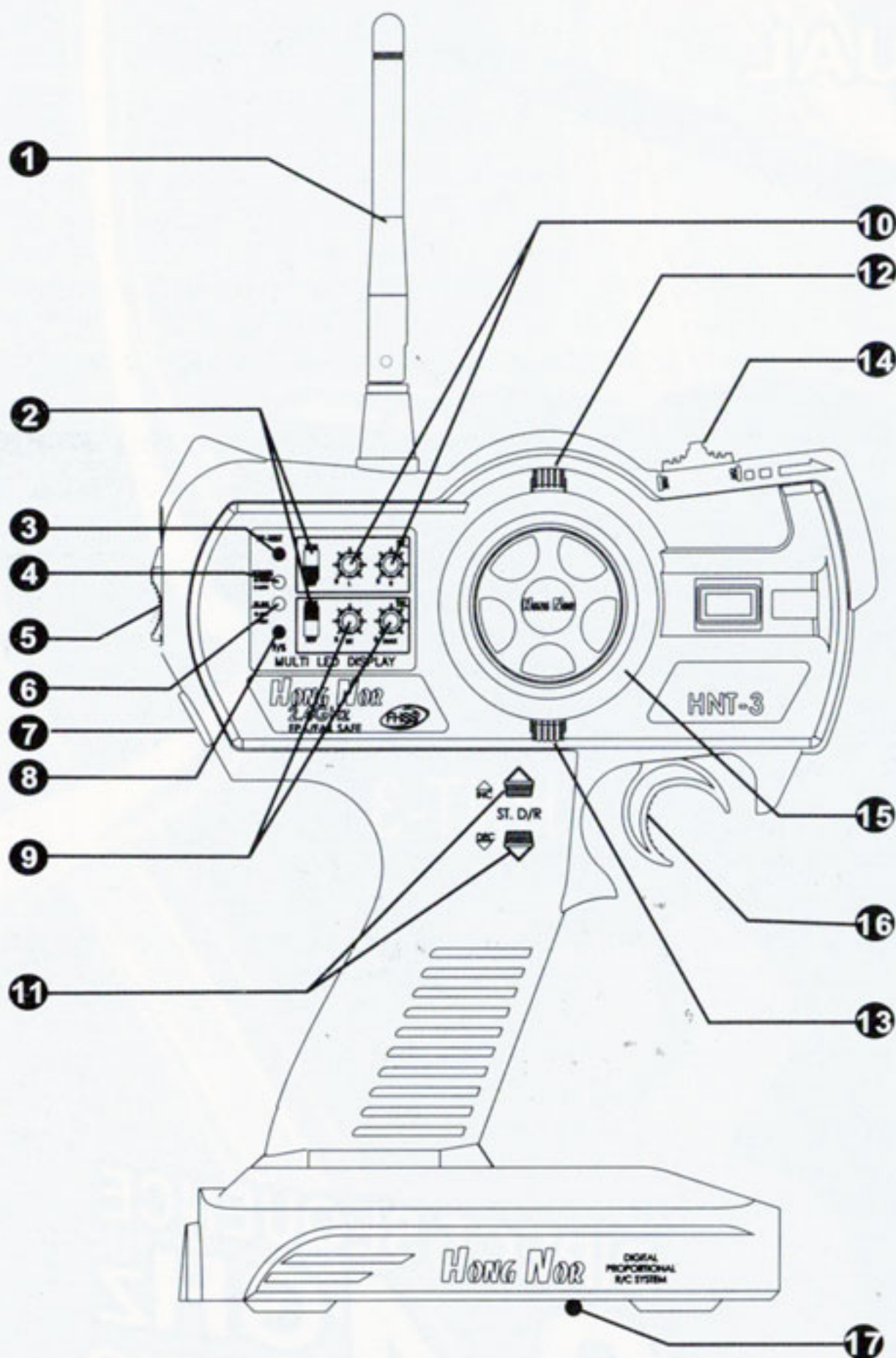
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HongNor
QUALITY R/C MODEL PRODUCTS

HNT-3 2.4GHz RADIO SYSTEM OVERVIEW

HNT-3 Transmitter

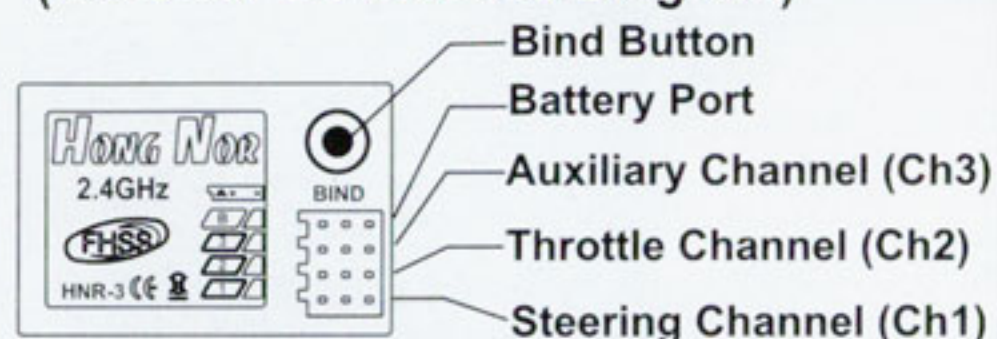
*Carefully read the instruction manual of your radio controller before using and keep it in a safe place as a reference introduction in the future.



(Transmitter)

1. Transmitter Antenna
2. Servo Reverse Switch
3. TX/RX Module and Binding Button
4. Power LED
5. Power Switch
6. Steering Dual Rate Trim LED
7. External Charging Jack
8. Fail Safe Button
9. Throttle End Point Adjust Knob
10. Steering End Point Adjust Knob
11. Steering Dual Rate Adjustment Button
12. Steering Trim
13. Throttle Trim
14. AUX Channel Switch
15. Steering Wheel
16. Throttle Trigger
17. Battery cover

(Receiver Connection Diagram)



Technology Data

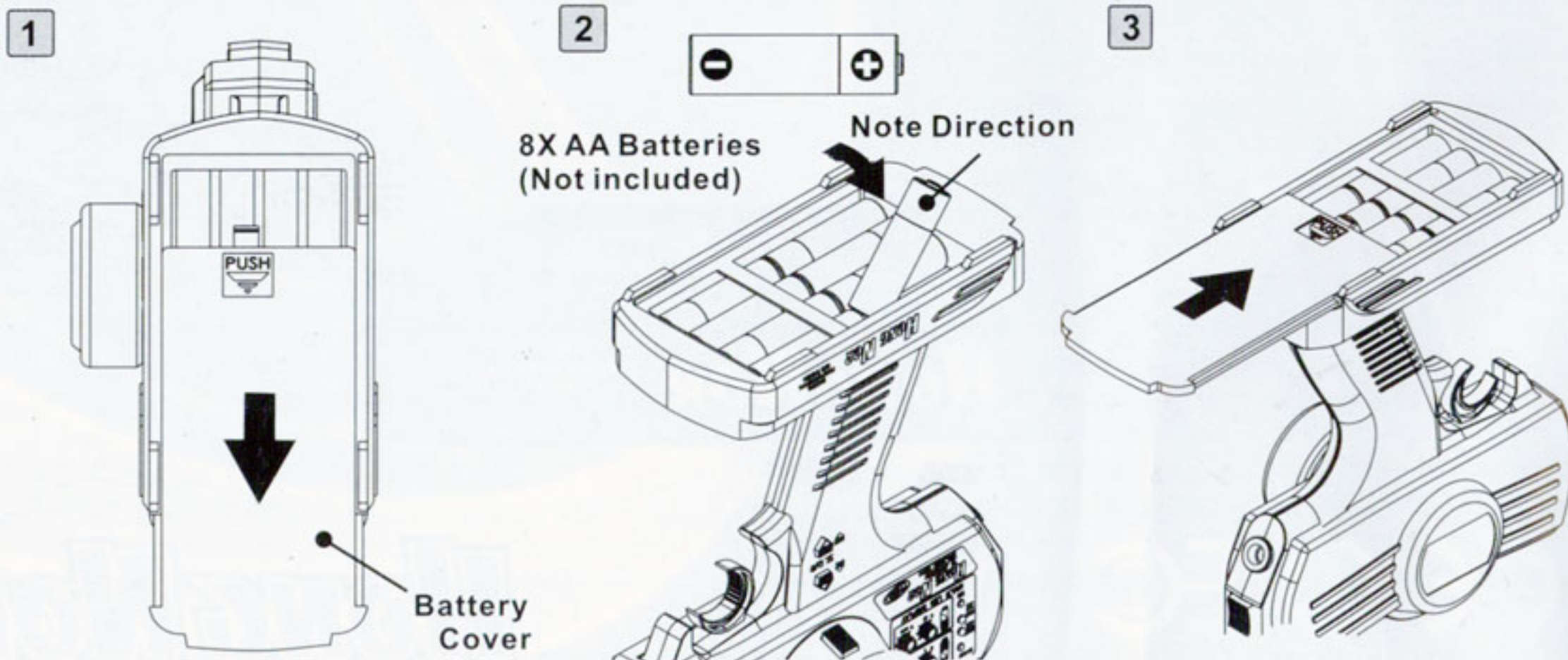
Transmitter (HNT-3)

Channels: 3
 Frequency: 2.4Ghz
 Programming Features: Nitro & Electric
 Power DC: 9.6V ~ 12V
 Spread Spectrum Model: FHSS
 Output power: <=20dBm/18dBm
 Measurement: 285 x 190 x 87mm
 Transmitter Net Weight: 361g

Receiver (HNR-3)

Channels: 3
 Frequency: 2.4Ghz
 Spread Spectrum Model: FHSS
 Power DC: 4.8 - 6V/<30mA
 Net Weight: 13.5g

Transmitter Battery Installation



CAUTION

1. To use your Radio with your models correctly and safely, read this manual carefully and keep it in a safe place for future reference.

Warning:

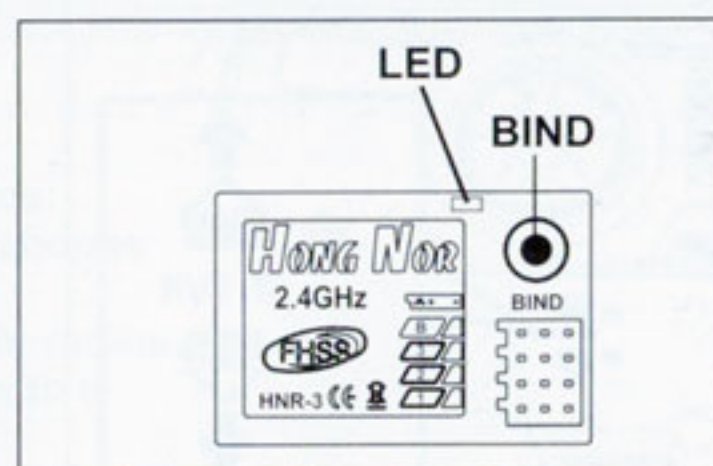
1. This product is only equipped for radio controlled cars;
2. The usage of this product should be approved by local law or regulations;
3. We will not be responsible for the damages caused by unauthorized modification, adjustment or replacement of parts on this product;
4. The manual may be change without prior notice. Please contact us if you have any corrections or clarifications that should be made in the manual;
2. Before turning on the transmitter, make sure the transmitter batteries are fresh. The voltage of the transmitter batteries is should never be lower than 9.6V, and please check and confirm that the servos are all well and properly connected.
3. Keep the radio system away from moist, high temperature and strong vibrations. Do not clean radio with any solvent.
4. Make sure antenna does not touch anything when power switch is turned on. Do not leave this radio in reach of small children.
5. Please use this product according to your local laws and regulations, we are not responsible for any incidents or damages.

Binding your RX to Transmitter

Turn on the transmitter, then connect your speed control to the battery, then push the bind button on the receiver while holding it down turn on the switch on the speed control. The LED should turn Green which means the binding is successful. After that, it is unnecessary to bind again.

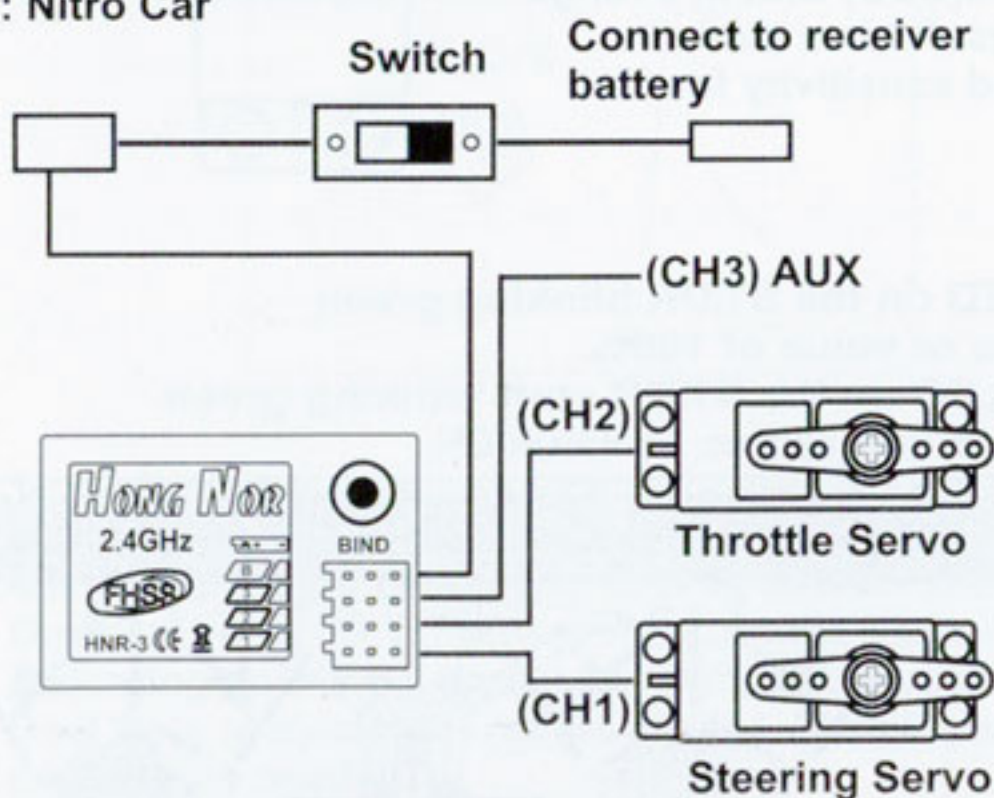
Caution:

When binding make sure that the RX and TX is no more than a yard or 3 feet from each other, also no other similar FHSS system or device is being use within 10 yard of your RX and TX or it could accidentally pair up or bind with your vehicle.

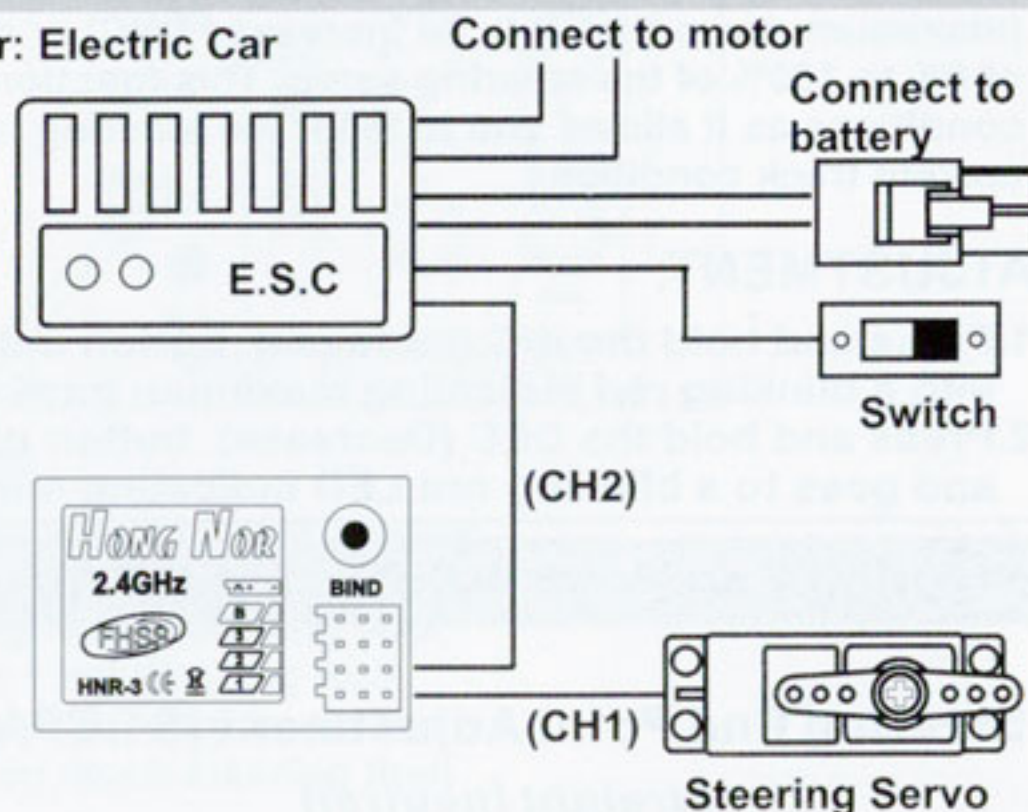


Receiver and Servo Connections

For: Nitro Car



For: Electric Car

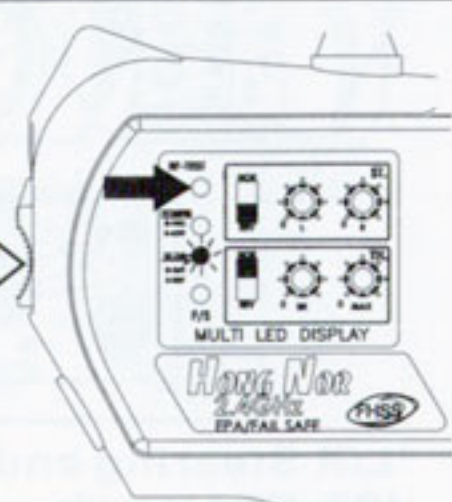


Reducing output power setting

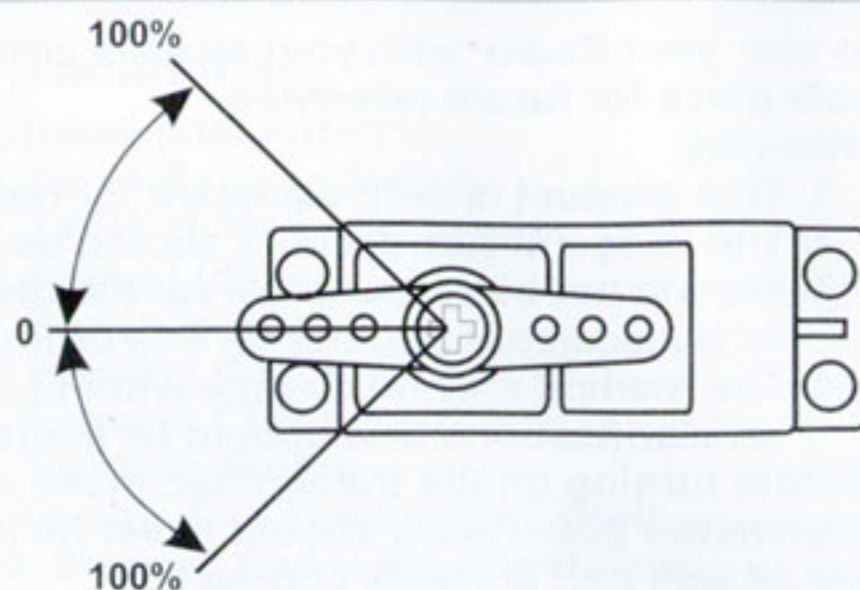
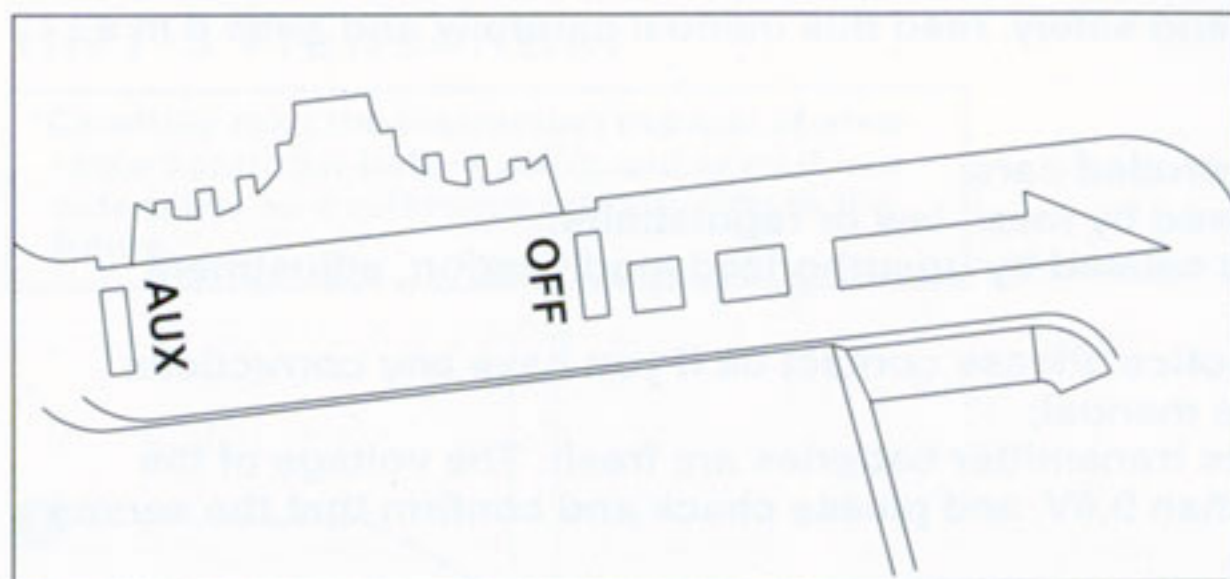
Push the RF-TEST button, while holding it down turn on your transmitter, the ST-DR LED RED should light up. Now your output power of the transmitter is reduce to a lower model of 18dBm, which reduce the range of the radio but save battery consumption.

Now press the RF-TEST button again, the LED on the ST-D/R should turn off, and output power becomes normal 20dBm which can control your vehicle with more range but more battery consumption.

- Step 1
RF-TEST
(Press and hold.)
- Step 2
POWER SWITCH
(Turn on.)

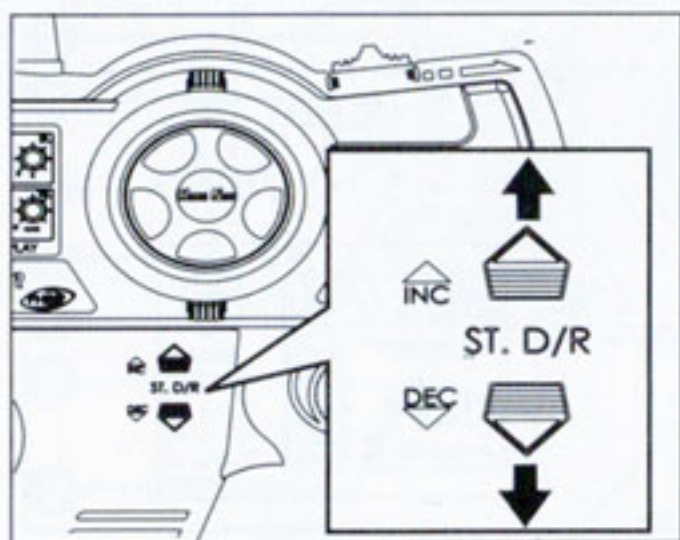


AUX Channel Function (CH3)

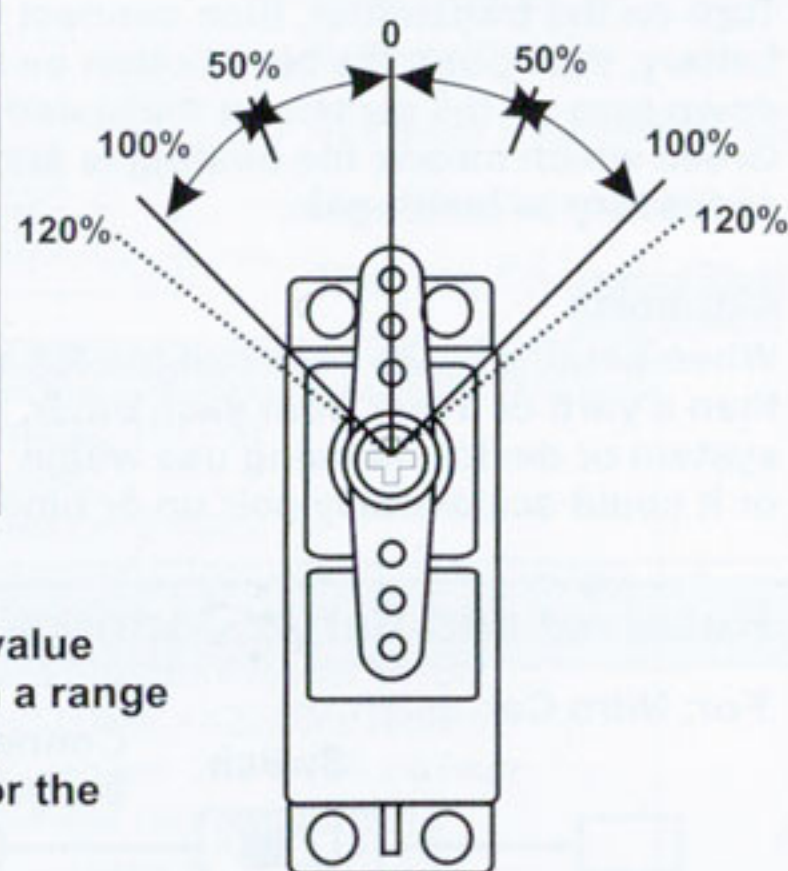
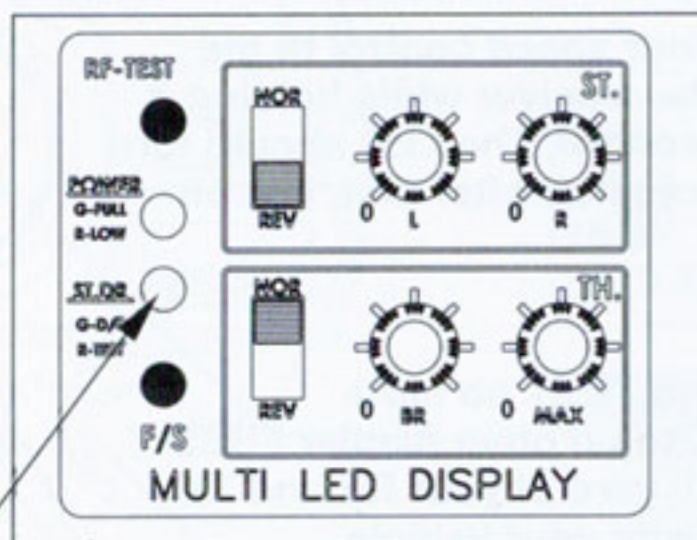


This switch control the transmitter is third channel. A servo plugged in this Channel 3 will move to full travel in one direction when the switch is in the AUX position, then move the switch to the OFF position the servo will move in the opposite position . This channel can be use to turn on all sort of things in your vehicle. For example, lights, on board camera.....etc.

Steering Dual Rates Setup



LED



DEFINITION:

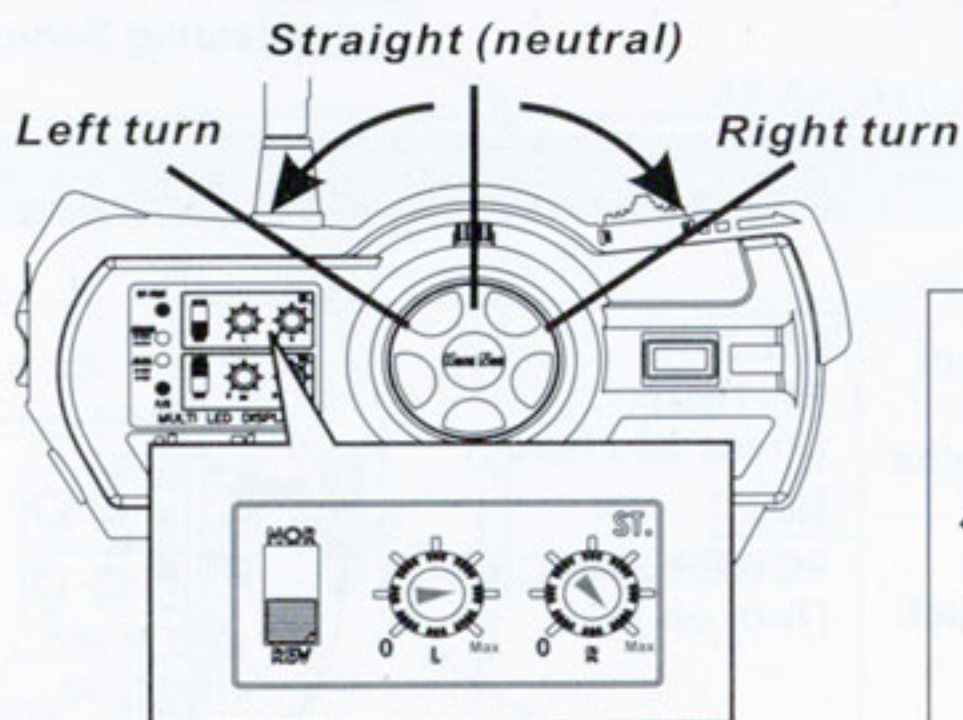
Steering Dual Rate (ST. DR): Is the adjustment that allows the dual rate value (maximum servo travel) to be increased (INC) or decreased (DEC) with in a range of 0% to 100% of the steering servo. This functions very useful in a race conditions as it allows you to tailor the steering radius and sensitivity for the current track conditions.

ADJUSTMENT:

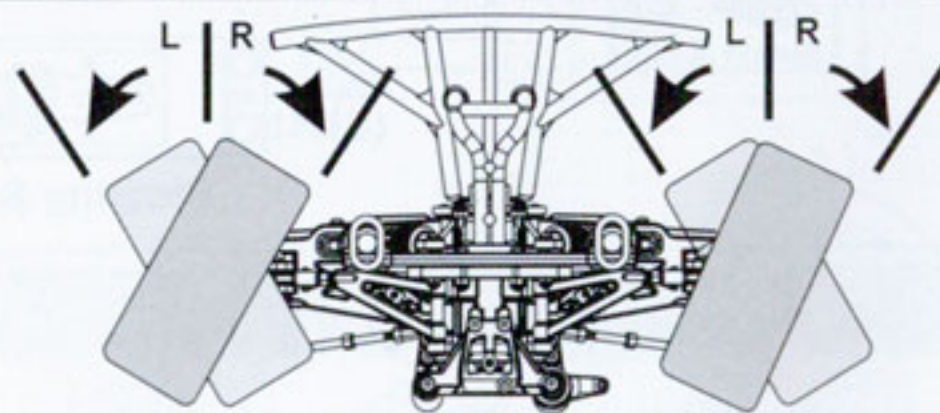
1. Press and hold the INC (Increase) button until the LED on the ST.DR blinking green into a blinking red indicating maximum turning radius or value of 100%.
2. Press and hold the DEC (Decrease) button until the LED on the ST.DR start blinking green and goes to a blinking red LED indicating minimum turning radius or value 0%.

Steering End Point Adjustment (EPA)

Steering End Point Adjustment (ST.EPA)



*L/R Steering end point adjustment (ST. EPA) knob.



Use the "EPA" to adjust steering tie-rod to the steering stopper.

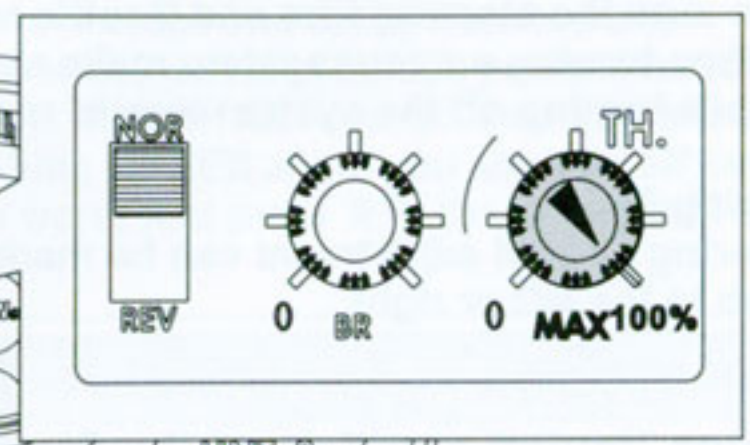
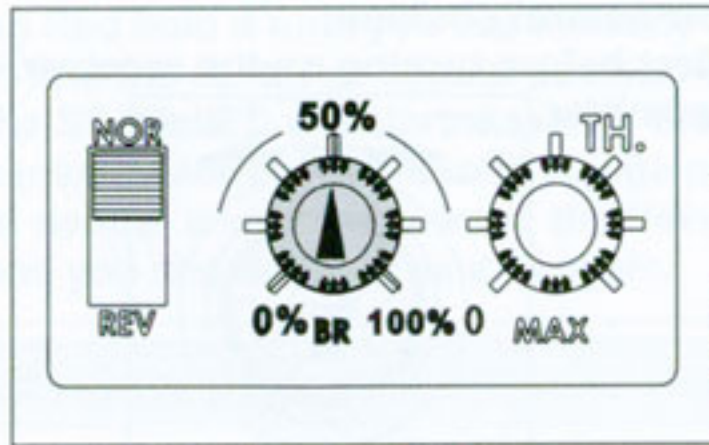
*After adjusting "D/R" to Max position then adjust both "ST EPA" knob to the correct position as picture shown.

*The steering stopper may vary for different brand models. Follow the steering stopper set-up for max position. The steering servo may be damaged if it is overload.

Throttle End Point Adjustment (EPA)

*Turn "BR" knob to set brake rate.

*Turn "MAX" knob to maximize the throttle rate.

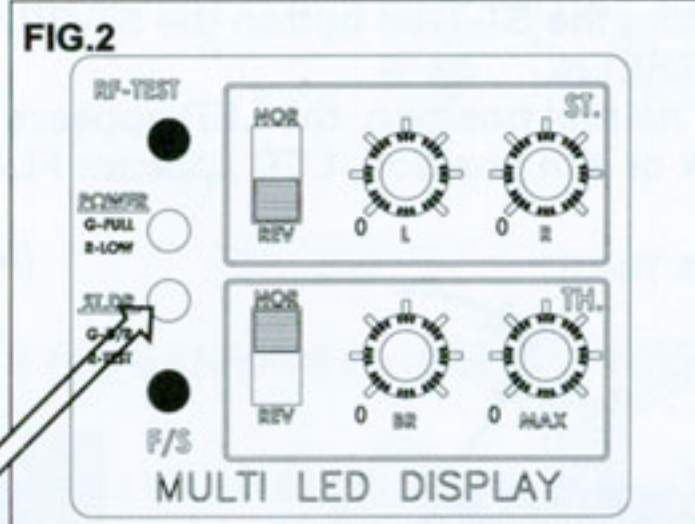
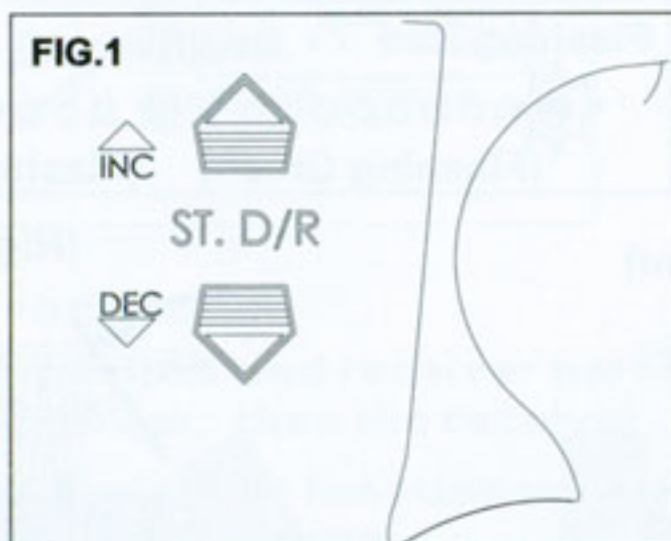


*We Suggest you to set the brake at 50%.
Too much brake may overheat and damage the Electric Speed Controller and Motor.

Chuck Your Dual Rate

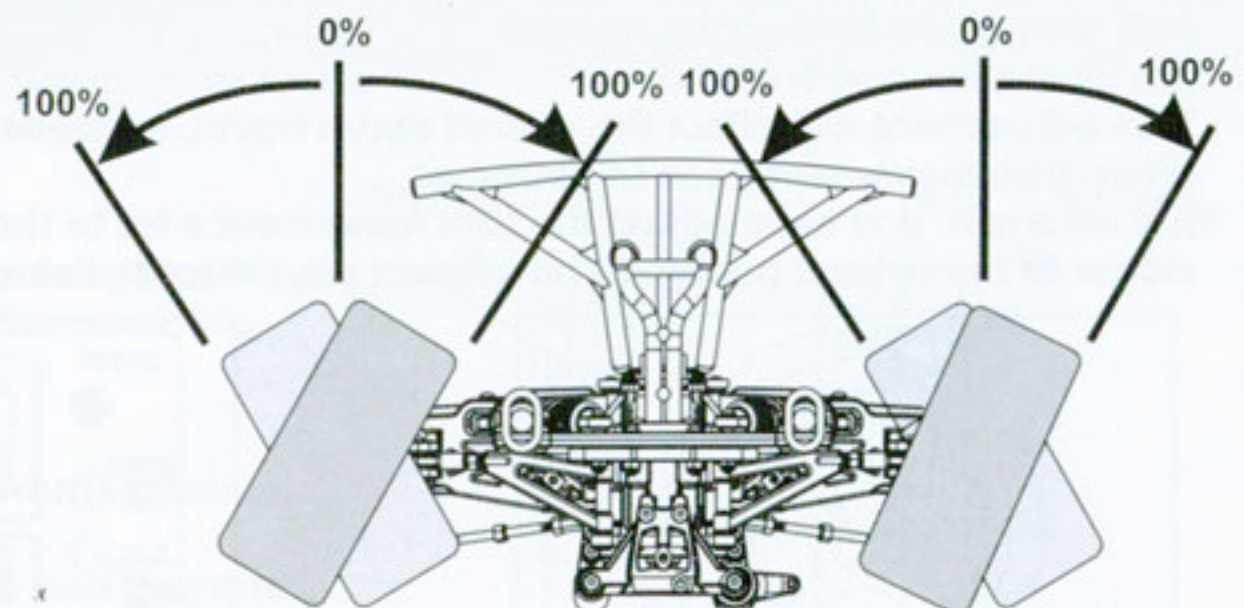
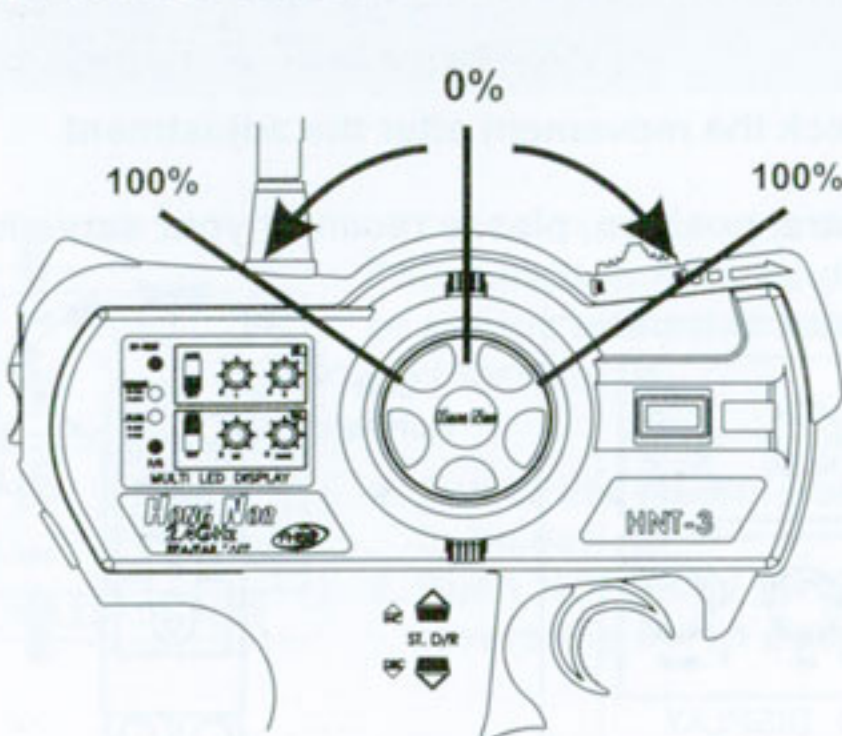
To Check Your Dual Rate:

1. Turn your radio on than **TURN ON YOUR VEHICLE.**
2. Check your steering on your radio by turning left and right several times.
3. Now turn you steering wheel all the way to left or right witch ever you choose and hold it while pushing the DEC button (see fig.1) on the ST-DR and hold it down, you should see that the wheel on your vehicle decrease in radius. (See fig.2) and that the LED on ST-DR will start blinking *Green* and turn to a blinking *Red* indicating it is at 0% or minimal steering radius.



Flashing

4. To increase the dual rate turn the wheel left or right all the way and hold it while pushing the INC button this will increase the turn radius and the LED on ST-DR will start blinking *Green* and turning to the *FIRST Blinking Red* indicating your Dual Rate is at 80%. Holding the increase button past the First Blinking Red indicating your Dual Rate is at 100%. When running your vehicle try to run the Dual Rate at maximum radius (100%). Then if you have too much steering then decrease as needed.

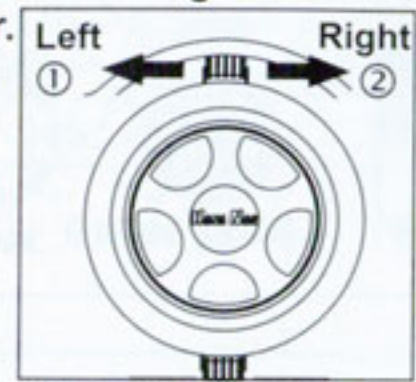


Steering Trim

- Turn on your transmitter, plug in your battery and turn on your esc while making the adjustment of these settings.
1. Connect the receivers, servos, and other components and then turn on the power switches of the transmitter and receiver.
 2. Be sure the steering trim and throttle trim on the transmitter are at their neutral position.
 3. When turning on your system make sure you turn on the transmitter first before turning on the receiver, while turning off the system turn off receiver before turning off the transmitter.

Steering Trim

Steering neutral adjustment can be made by moving the steering trim knob to the left or right.



Finding Neutral position on the Steering

To find the center or neutral position on your transmitter, turn it on. Push the ST-TRIM to the left and notice the ST-DR LED will start flashing *Green* then slowly turn to a flashing *Red* hold it there until you see a steady flashing *Red*, now you know you are at the end of left side trim. Now to find the center or neutral position of the steering trim push the ST-TRIM to the right and hold it, you will notice that the ST-DR LED will start flashing *Green* hold it there until you see that it will turn *RED* let go, now you are at center or neutral position, if you go past the *RED* light it will start flashing *GREEN* again you are now off center or neutral and going toward the right.

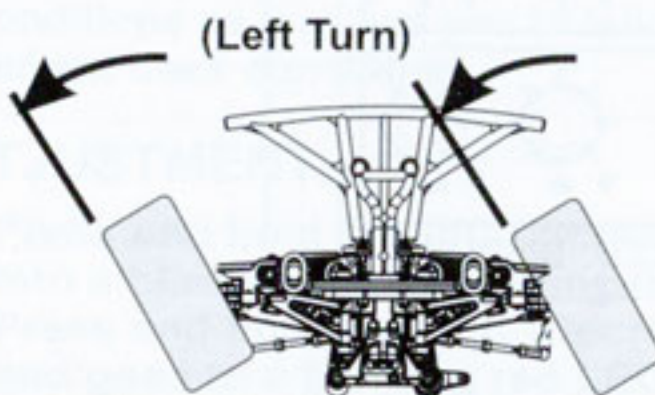
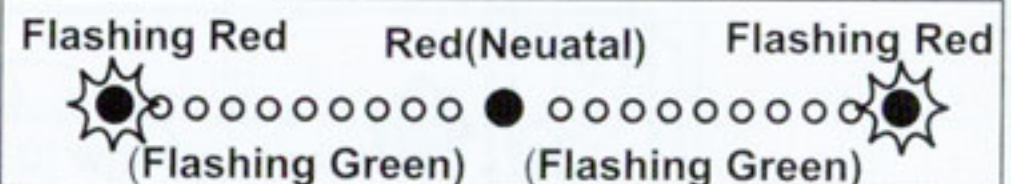
Racer Tip

Always check and be sure the servo is at neutral position before installing a servo. Adjust the servo horn hole position and linkage so that both are parallel. When a servo saver is used, place it as close to center position as possible. Be sure the steering trim on the transmitter is at the neutral position.

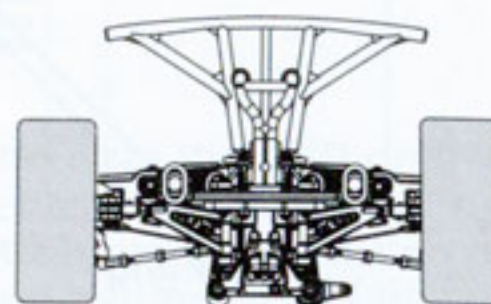
Trim Operation and Maximum Travel.

Changing the trim can effect the overall settings, when adjustments are made with the trims, please recheck your installation for maximum servo travel. When Trim movement goes to extremes and your vehicle will not go straight. That means if you make a lot of trim movement to get a servo to the neutral position, please reposition the servo horn or servo saver on the servo and inspect your linkage installation.

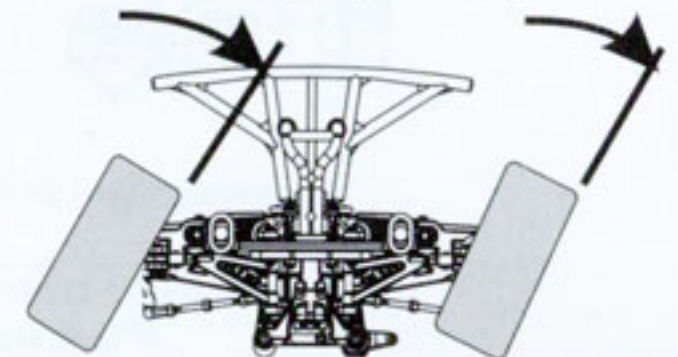
1. When adjusting the ST-Trim button the ST-DR LED appears **FLASHING GREEN**.
2. When in the neutral position, the LED appears **RED**.
3. When in Max or Min position, LED appears **FLASHING RED**.



(Neutral Position)



(Right Turn)



Throttle Trim

Throttle neutral adjustments can be made by moving the throttle trim to the left or the right.

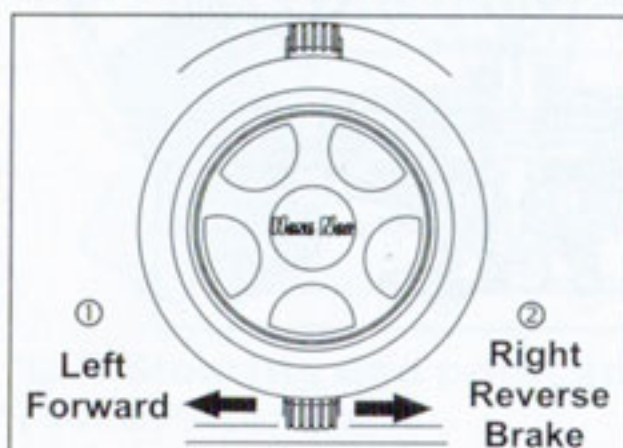
Racers Tip

When using a electronic speed control, please set the throttle trim to neutral and make adjustments to the speed control. On a gas powered model, set the trim to the point where carburetor is fully closed in accordance with the engine instruction manual.

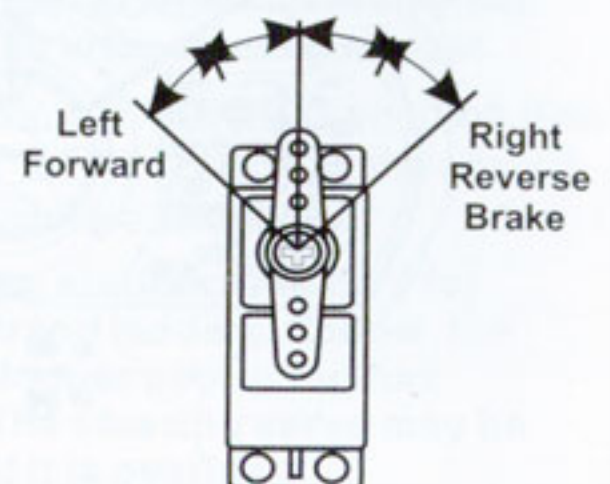
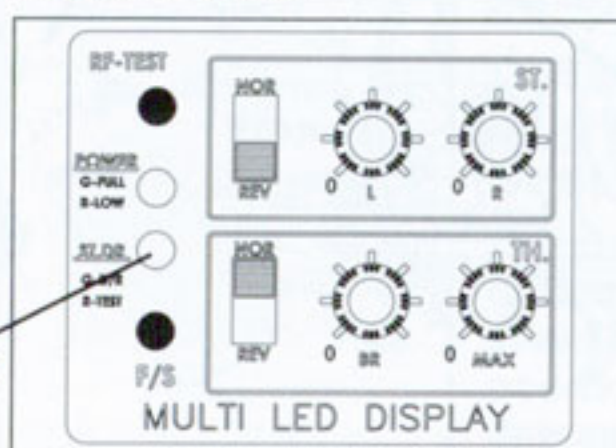
Trim Operation and Travel

Trim adjustment will affect the overall servo travel, so please check the movement after the adjustment. When trim movement goes to extremes.

That means if you have adjust the trim movement a lot to the neutral position, please recenter your servo horn closer to the neutral position and inspect your throttle linkage.



FLASHING



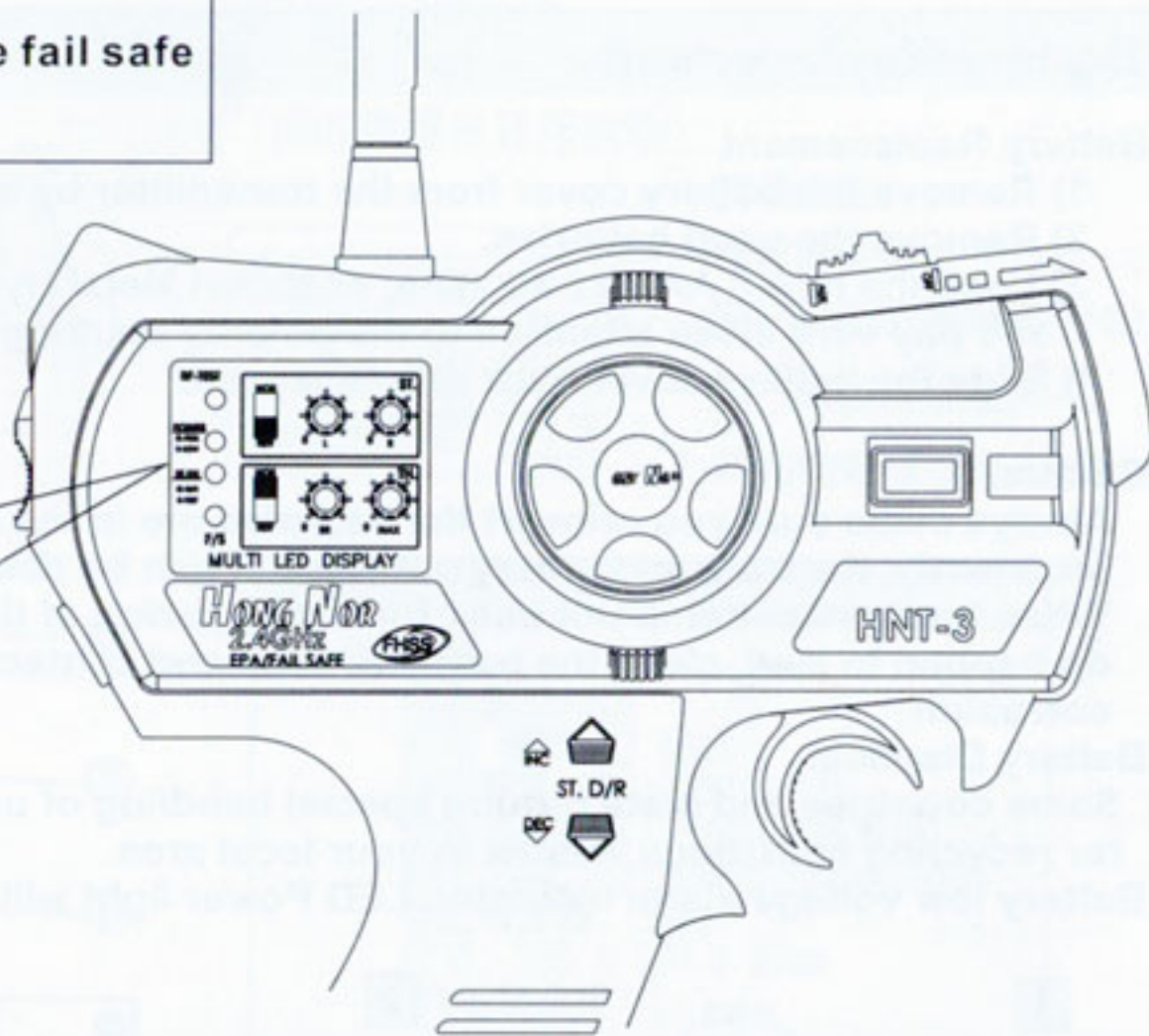
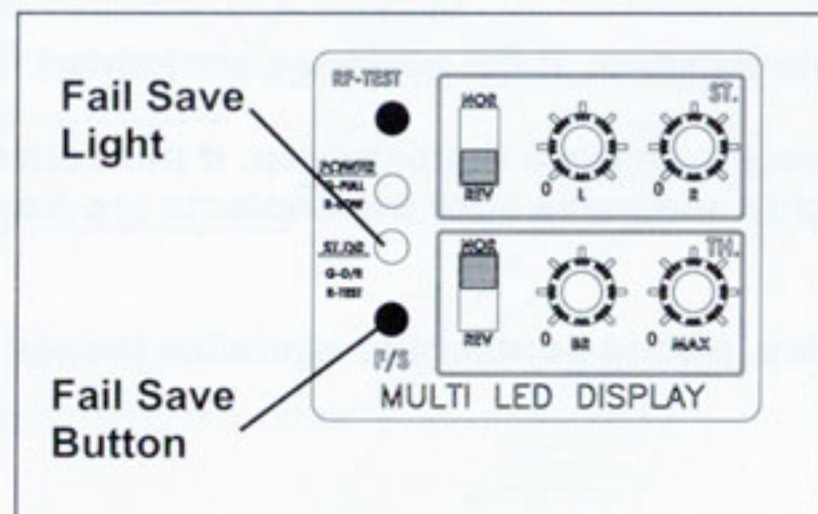
How To Neutral Throttle Trim

Finding Neutral position Throttle

1. Turn on transmitter
2. Push the TH-TRIM to the right and notice the ST-DR LED will start flashing GREEN then slowly turning to a flashing Red hold it until you see a steady flashing Red, now you know you are at the end of the Forward trim.
3. To find the center or neutral position of the TH-TRIM push the TH-TRIM to the Left and hold it, you will notice that the ST-DR LED will start flashing Green hold it until you see that it will turn RED let go, now you are at center or neutral position, if you go past the RED light it will start flashing GREEN again you are now off center or neutral and going toward the Reverse or Brake. If you past it don't worry just push it to the right a few click and you should be at neutral again.

Fail Safe Setup

The HNT-3 radio system features a built-in fail safe to function automatically set the servo to default when the transmitter loses signal due to interference. For your safety, we recommend you to active the fail safe function.



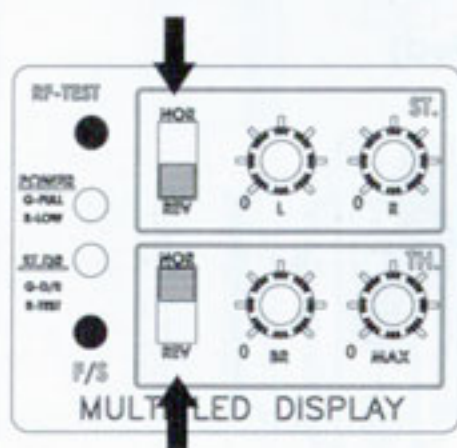
Fail Safe Process

1. Pair the transmitter and receiver before setting the fail safe(F/S) function. Turn on the transmitter power, then the receiver.
2. To set up fail safe(F/S) function with throttle servo is at neutral position, keep the throttle trigger at neutral position.
3. Press and hold the fail safe button on the transmitter for 5 second, until the fail safe LED light turn red. The fail safe(F/S) function is now activated.



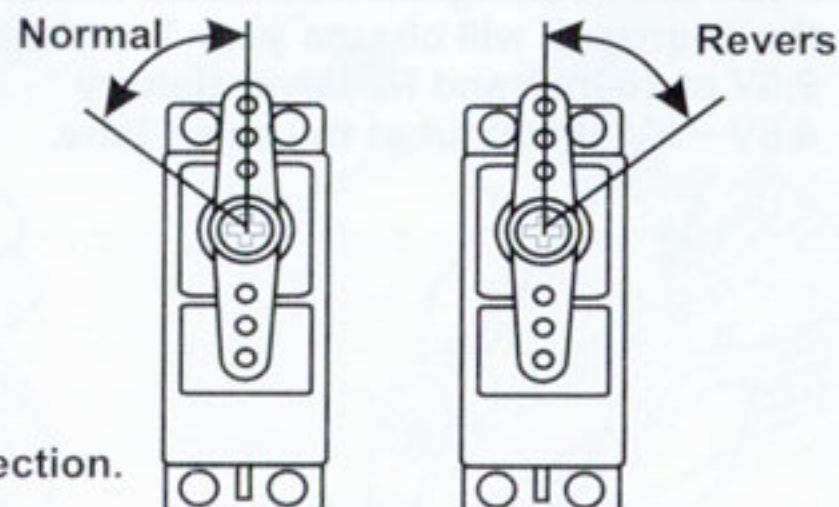
- *To avoid losing control of the car, the throttle servo position must be at "neutral" when setting the fail safe(F/S) function.
- *Fail safe is only good when you have power to the servo and electronic speed control (ESC). Without power it can not go back to neutral.

Servo Reverse Switch (REV)

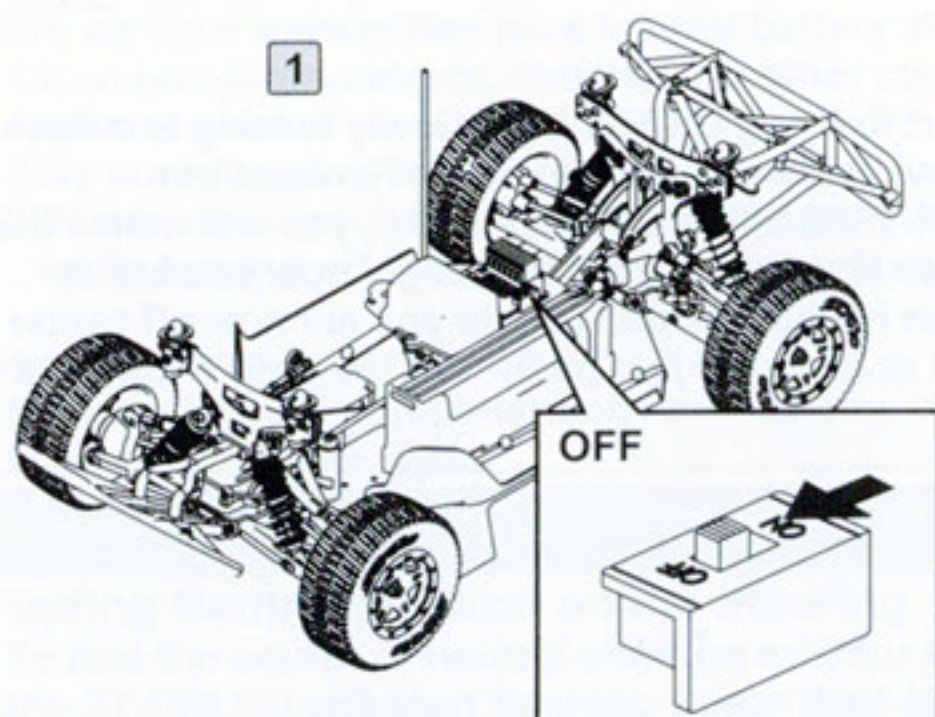


This function reverse direction operation of servos related to transmitter steering, and throttle.

1. Select the steering and throttle channel to be set.
2. Push NOR /REV switch up and down to reverses the servo operation in opposite direction.

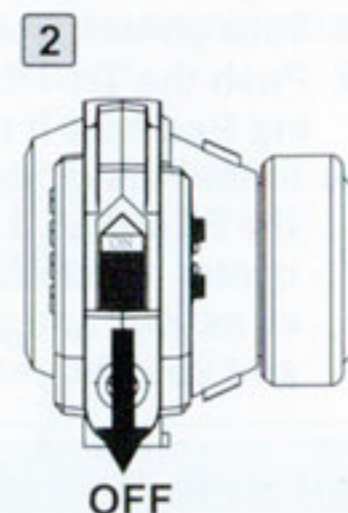


Turning R/C Unit Off



CAUTION

- * Turn off the receiver first, then turn off the transmitter
- * If you turn off the transmitter first before the receiver, you may lose control of the R/C car.



Battery Replacement

Battery Replacement

- 1) Remove the battery cover from the transmitter by sliding it in the direction of the arrow.
- 2) Remove the used batteries.
- 3) Load the new 8 AA size alkaline, or Nickel Metal Hydride (Ni-MH) rechargeable batteries, and pay very close attention to the polarity marking on the batteries.
- 4) Slide the battery cover back onto the case.

Caution

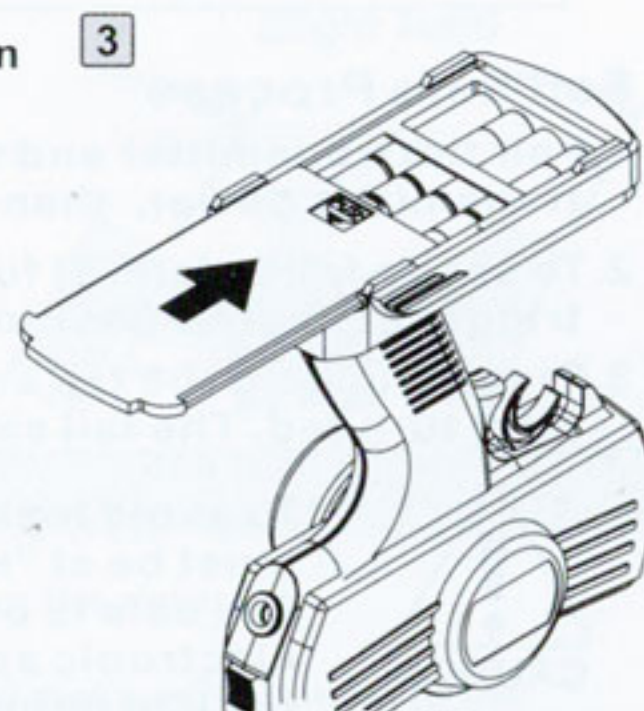
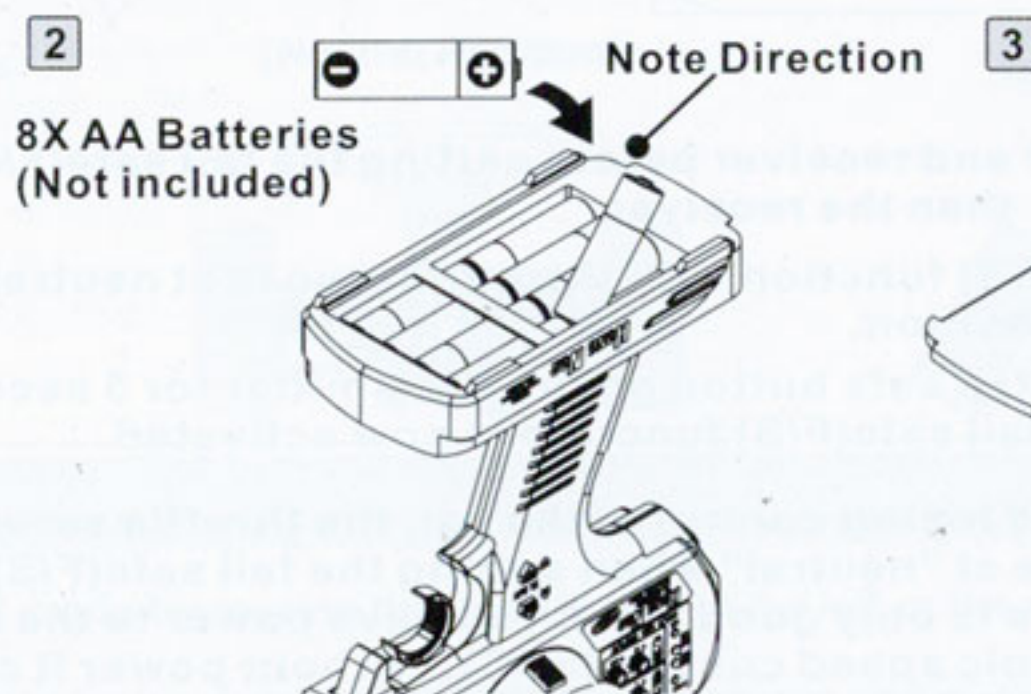
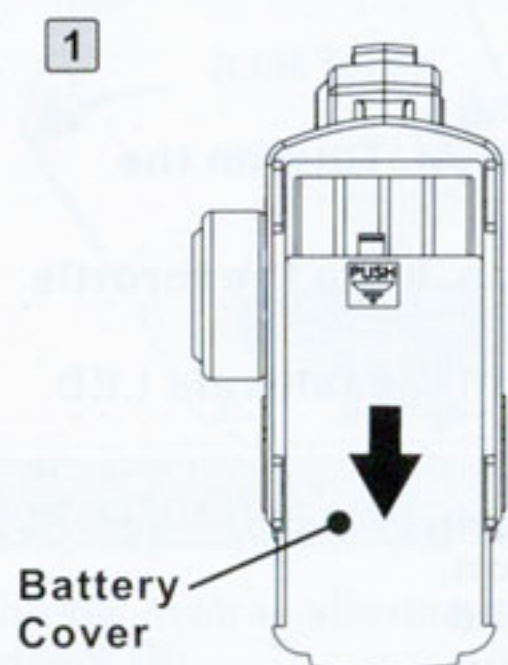
Always make sure you reinsert the batteries are in the correct polarity order. If the batteries are loaded incorrectly, the transmitter may not work or can be damaged.

When the transmitter is not used for a long period of time remember to remove the batteries. If the batteries do happen to leak, clean the batteries case and contacts thoroughly and make sure the contacts are free of corrosion.

Battery Disposal

Some countries and state require special handling of used batteries, please contact the agencies responsible for recycling hazardous wastes in your local area.

Battery low voltage alarm indicator. LED Power light will flash.



Charging The Battery

- * If you use rechargeable batteries make the charger it will charge your Transmitter 9.6V at 100mA and Receiver battery 4.8V ~ 6V at 100mA at the same time.

