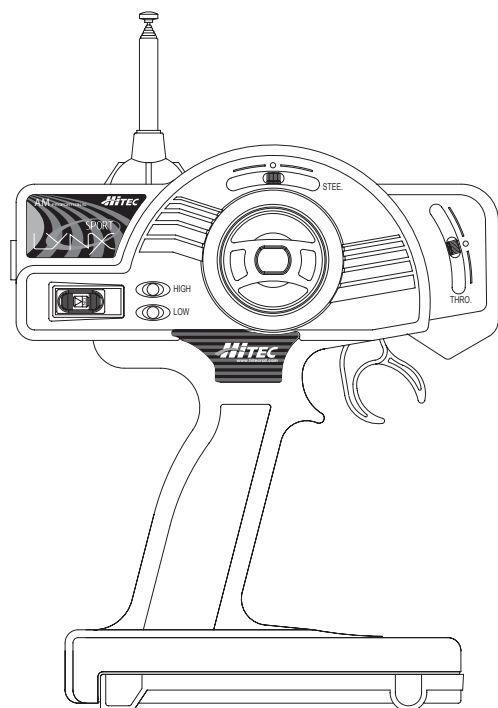


SPORT  
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PISTOL GRIP 2 CHANNEL AM RADIO  
CONTROL SYSTEM OPERATION MANUAL

PISTOL GRIP 2 CHANNEL AM RADIO CONTROL SYSTEM

LYNX SPORT



Ergonomic Pistol Grip Design  
2 Channel AM Proportional System  
2 Channel Servo Reversing Switches  
2 LED Battery Status Indicator  
Nicad Battery Charging Jack

## Table of Contents

- I. Introduction
- II. Features and Specifications
- III. System Layout
- IV. Setting and Operation

### 1. Transmitter

- a. Loading Batteries
- b. Reading the LED Battery Indicators
- c. Recharging Nicd Batteries
- d. Transmitter Antenna
- e. Changing Crystals

### 2. Installation of Receiver and Servos

- a. Using Separate Power Source for the Receiver
- b. Battery Eliminator Circuit with Mechanical Speed Control
- c. Connection with Electronic Speed Control

### 3. Transmitter, Receiver and Servo Settings

- a. Checking Operation of the Servo
  - Steering Servo Settings
  - Steering Servo Trim Setting
- b. Throttle Servo Settings
  - Using Mechanical Speed Control
  - Using Electronic Speed Control
  - Using Throttle Servo for Gas Powered Vehicles



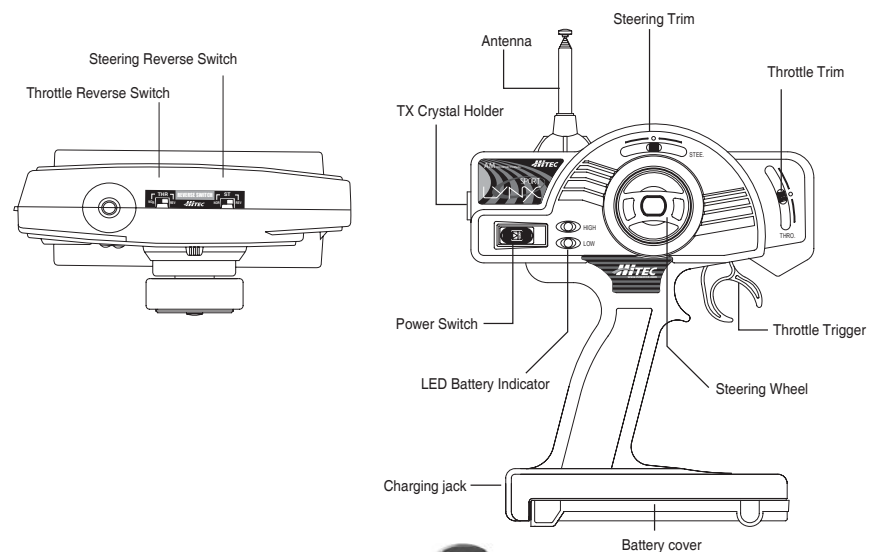
## I. Introduction

Thank you for purchasing the Lynx Sport, 2 Channel, Pistol Grip, and AM Radio Control System. The Lynx Sport Radio is made of high quality, technically advanced components designed to achieve top performance from your RC vehicle. Team up with Hitec Racing and see that quality and performance doesn't have to cost a fortune!

## II. Features and Specifications

- Pistol Grip 2 Channel AM Proportional System
- Servo Reversing Switches (Both Channels)
- 2 L.E.D. Battery Status Indicator
- Nicd Battery Charging Jack
- Power Output: 500Mw
- Current Drain: 180 mA

## III. System Layout



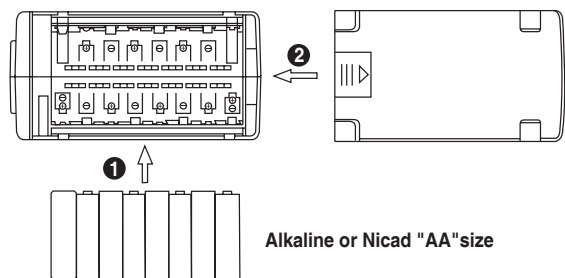
## IV. Setting and Operation

### 1. Transmitter

#### a. Loading Batteries

You may use either Alkaline or Nicad "AA" size batteries.

- Push the bottom battery cover in the direction of the arrow then lift up the cover
- Load 8 AA batteries (Be sure the polarity is correct)
- Reinstall battery cover
- Nicds should be charged with the Hitec CG-22 or CG-25A charger for minimum 12 hours before use



#### b. Reading the LED Battery Indicators

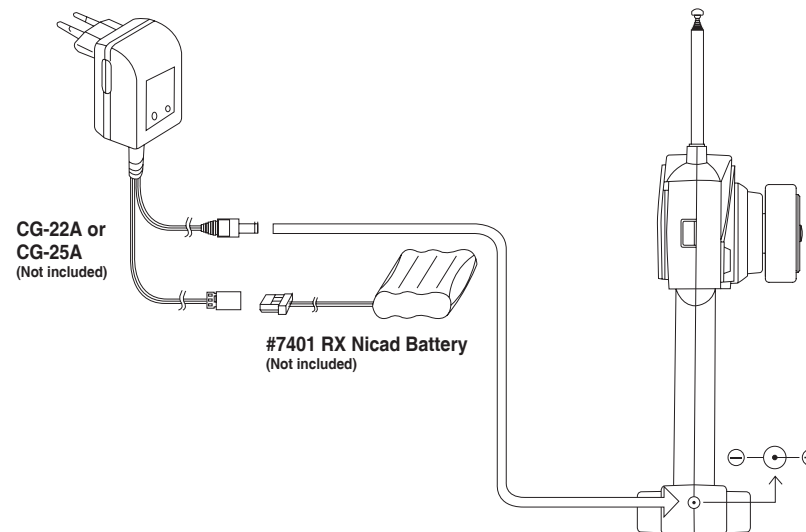
- Normal: Green
- Warning: Flashing Red

With new alkaline or freshly charged nicads the Green light should be brightly lit; as the green light starts to fade the Red will begin to illuminate and eventually light completely as the green light goes out. Once this occurs, operation should be stopped immediately, and the batteries should be recharged or replaced. (Warning: Recharge Nicds batteries only. Alkaline batteries can not be recharged)



#### c. Recharging Nicd Batteries

The Lynx Sport is equipped with an external-charging jack so there is no need to remove the batteries from the transmitter to charge them. The Hitec CG-22 or CG-25A charger can be used to charge the batteries overnight, or for approximately 12~15 hours.



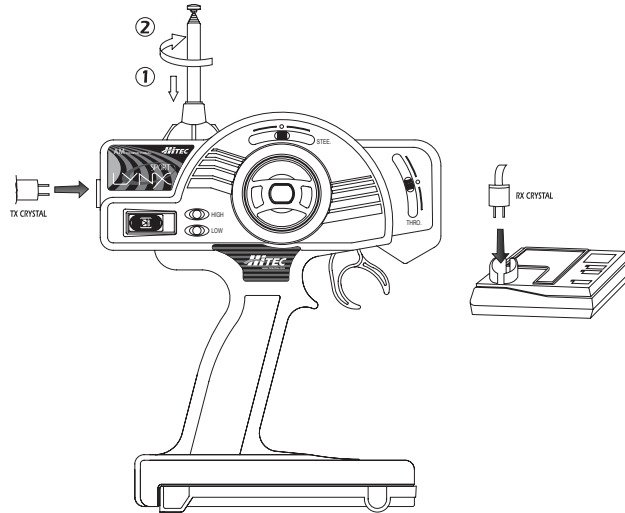
#### d. Transmitter Antenna

Always make sure your antenna is attached and fully extended before use otherwise your operating range will be greatly reduced and could result in damage to your vehicle and or injuries to yourself and others.

#### e. Changing Crystals

Changing crystals to avoid conflicts with other vehicles is possible where permitted. (You must check your local rules before doing so. For example in the US the FCC prohibits the changing of transmitter crystals on 75MHz). If you are eligible to change crystals, both the transmitter and receiver crystals must be changed together. You must change within the same band; i.e. 75MHz to 75MHz, 27MHz to 27MHz, different bands can not be intermixed, if your radio is on 75MHz then 27MHz crystals cannot be used. Use only Hitec crystals when changing frequencies.

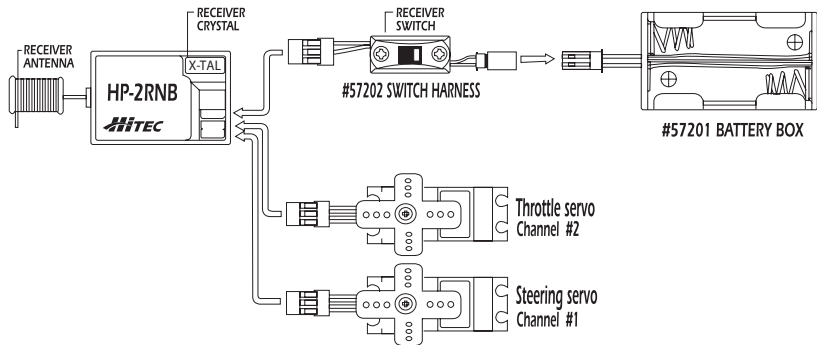




2. Installation of Receiver and Servos

a. Using Separate Power Source for the Receiver

When using a separate receiver battery pack for the receiver, instead of sharing the motor battery and a B.E.C. equipped speed control to operate the receiver and servos, please refer to the following diagram. After installation, turn on the power to the transmitter first, then turn the receiver on (Warning: Always turns the transmitter ON first and OFF last to prevent your vehicle from running away.). This will prevent the receiver from picking up stray signals and going out of control. Now, move the controls to see if the servos are moving properly. If not, check your wiring or crystals if the servos do not move at all.

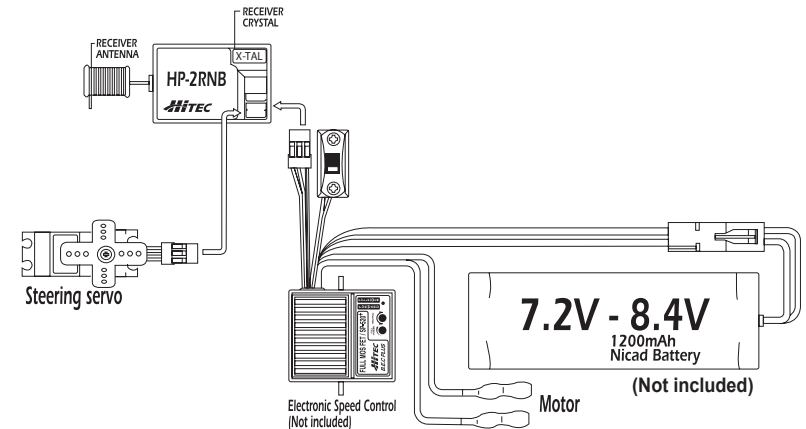


b. Battery Eliminator Circuit with Mechanical Speed Control

The Battery Eliminator Circuit featured in the Hitec HP-2RNB receiver is capable of handling input voltage of up to 7.2volts (6 cells). When using the B.E.C., always refer to the instruction manual of the vehicle you are planning on using it in. This will provide the detailed information on how to properly connect it in your vehicle. (Warning when using B.E.C., control may be lost as the battery voltage drops below the normal operating voltage of the receiver). To be safe, do not run the motor battery completely dead, stop running the vehicle as it starts to slow.

c. Connection with Electronic Speed Control

Electronic Speed Controls such as the Hitec SP-520 Plus, have a built in B.E.C. system inside the speed control circuit. Plug the receiver connector from the speed control into the "THROTTLE" or #2 channel on the receiver, and the steering servo into the "STEERING" or #1 channel on the receiver. Now you can connect the main power to the speed control and when the power switch is turned on the speed control will regulate the power that the receivers can use.



3. Transmitter, Receiver and Servo Settings

a. Checking Operation of the Servo

- Steering Servo Settings

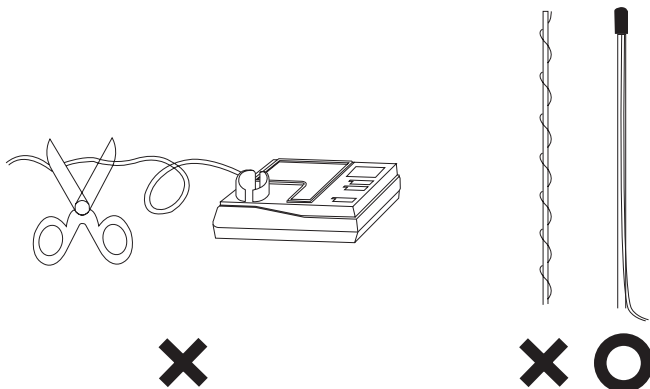
- After installation of the servo and receiver into your model is complete, turn the power "ON" the transmitter (fully extend the antenna), now turn on the receiver. (It is advisable to remove the pinion gear from your car so that the wheels do not engage for this test)



- Check to see if both servos and/or speed control are working properly.  
If not, check the connections and/or make sure the main battery pack is charged.

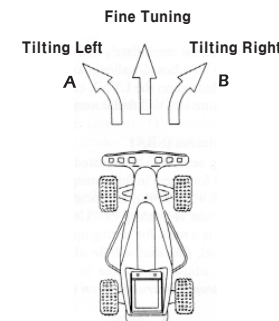
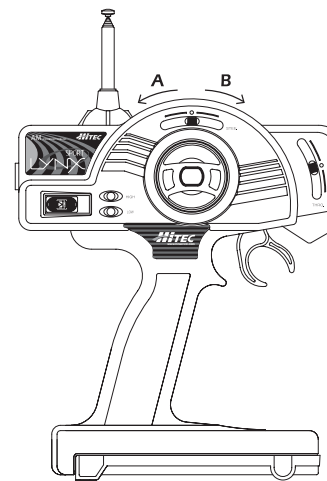
- Check to see if the servos are moving in the correct direction. If not, change the servo-reversing switch located on the top of the transmitter to achieve the correct direction.  
- If everything checks out then turn the receiver "OFF" first, then the transmitter (Always remember Never have the receiver "ON" without the transmitter being "ON" this means when turning your model "ON" always turn the transmitter "ON" first and "OFF" last)

**Warning!!!** : Do not shorten the length of the receiver antenna by cutting off any excess wire as this will severely affect the operating range and could result in injury to yourself and others.



### - Steering Servo Trim Setting

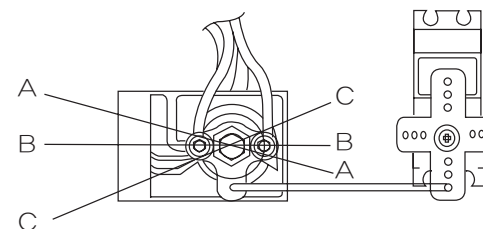
After verifying that the steering direction is correct, set the steering trim knob to the center, the servo horn or arm should be at 90 degrees and the wheels should be straight. If not, then make the horn or arm 90 degrees by removing it and replacing it correctly. If the arm is at 90 degrees and the wheels are not straight, adjust the linkage to compensate. Once you've got these two settings correct then use the steering trim for fine-tuning.  
Note: (Always Trim your car before you run or race) This is a common mistake made by beginners, if you have to steer your car to go straight, you are fighting a losing battle. Make sure it goes straight before you run and driving will become much easier.



### b. Throttle Servo Settings

#### - Using Mechanical Speed Control

Adjust the servo link rod so that point "B" will come to the neutral position. Also when the trigger is pulled to the maximum point "C" should be as illustrated and at point "A" when the trigger is pushed to the limit. Check to see if the vehicle moves forward when the trigger is pulled. If the vehicle moves backwards then the "Throttle" reversing switch will need to be switched. If the model moves forward or reverse at the neutral position then use the throttle servo trim to fine tune. If the servo moves the speed control farther than is needed, you will need to limit the travel by moving the linkage into a different mounting hole on the horn, closer to center will give less travel and further from center will give more travel.



- Using Electronic Speed Control

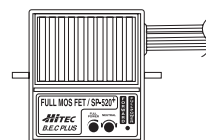
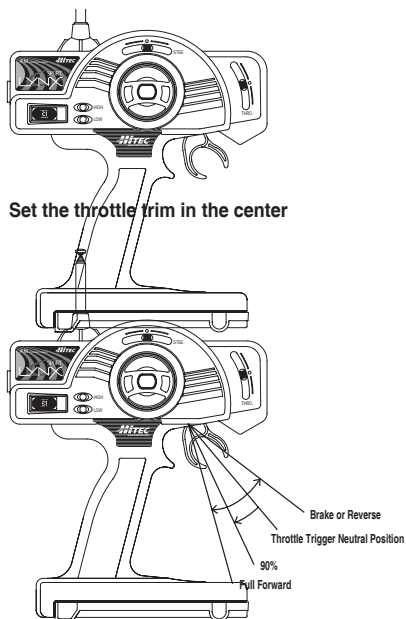
- Set the throttle trim in the center then adjust the ESC neutral point, the throttle trim can be used for fine tuning adjustments.

- Adjust the full power position of the ESC (forward only) when the trigger is pulled approximately 90% of the way. If the vehicle does not move forward when the trigger is pulled and does when the trigger is pushed, check the motor connection first, if that is correct then switch the "throttle" reversing switch to correct the issue.

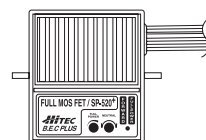
- Adjusting the full power position of the ESC (Reversible version) is the same as the forward only version, except you must make sure you are adjusting the forward not the reverse. If the trigger is pulled and the full power adjustment does not effect the speed but does when the trigger is pushed, the servo-reversing switch for the "throttle" needs to be switched. After this is determined, use the same 90% as discussed previously for forward. Reverse on most speed controls is not adjustable.

- Using Throttle Servo for Gas Powered Vehicles

Gas powered vehicles require the throttle servo to be set up to operate the carburetor and the brakes together. The position of the control rod in the control horn will determine the amount of travel; this must be set up properly to get the proper throw for the throttle and brakes. Setups are different for individual applications so consult the manufacturer's manual for the proper set up procedure.



Adjust Neutral Point  
(Not included)



Adjust Full Power Position  
(Not included)