Approval

- FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

- Federal Communication Commission (FCC) Radiation Exposure Statement
For Husky 2.4G, transmitter : FCC ID RE6HUSKY24G
The remote device is approved as hand-held and hand-operation only portable (relative to hand) device which is normally operated at 5 cm from a person's body
For Cube 3, receiver : FCC ID RE6CUBE24G3
The device and the antenna for this device must be installed to ensure a minimum separation distance of 20 cm or more from a person's body. Other operating configurations should be avoided.

- CE

Hereby, Hubsung Plastics Ltd. declares that this 2.4 GHz radio control system is in comd and compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The R&TTE (Radio Equipment & Telecommunications Terminal Equipment) directive is the new European directive relating to radio equipment and telecommunications transmission equipment. It also covers the collective recognition of the conformity of such equipment. One part of the R&TTE directive regulates the introduction and operation of radio systems in the European Community. An important change is the abolition of approval. The manufacturer or importer must subject radio equipment to a conformity appraisal process before that equipment is introduced. The CE symbol is attached to the device to indicate that it conforms with the valid European norms.

CE 0197 !

An exclamation mark is also to be attached to radio transmitting equipment, to indicate that the permissible frequencies are not yet uniform throughout Europe. This requirement applies to all the countries included in the list attached. It is essential to note that these radio control systems may only be operated on the approved frequencies, as listed in the table.

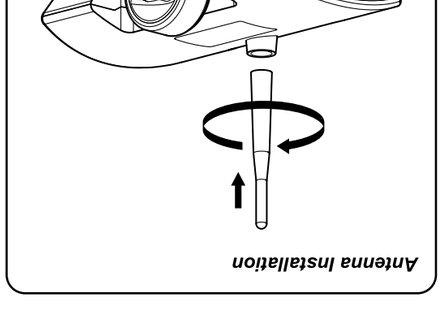
Please note that the user bears the responsibility for compliance with this requirement, and for ensuring that the radio system complies with the directives. In Germany the requirement to purchase a license for the operation of 2.4 GHz systems remains in effect; please refer to the operating instructions, or the separate sheet included with them.

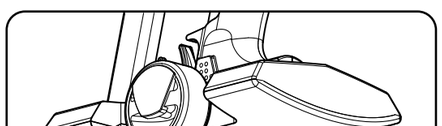
Proton Radio Control, Inc.
PO Box 957681 Duluth GA USA 30096

Printed in Korea

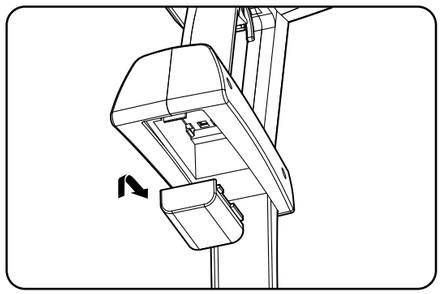
How to establish link between the transmitter and the receivers

Each transmitter has an individually assigned unique ID code. In order to start operation, the receiver must be linked with the ID code of the transmitter to which it is being paired. Once the link is made, the ID code is stored in the receiver and no further linking is necessary unless the receiver needs to be used with another transmitter. Linking procedure: 1. From the transmitter's [BIND] menu, choose ID LINK and press Enter. 2. Power the Cube receiver and press the bind button (red LED above the slots) until the LED changes to blue. 3. Confirm the link establishment by watching for servo movement when steering or triggering.





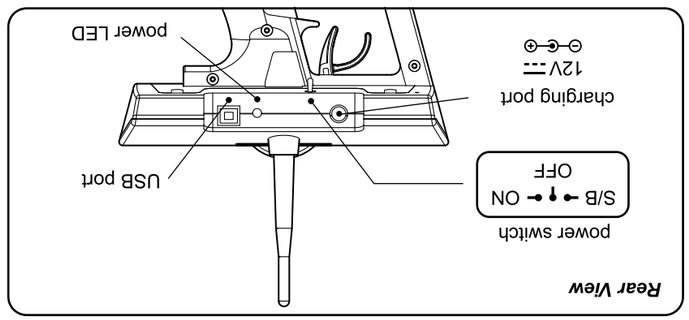
Caution: Do not over tighten the antenna. Once installed, leave it installed. Repeated removal and reinstall can loosen the antenna base and damage the connections, causing reduced range and/or loss of signal.



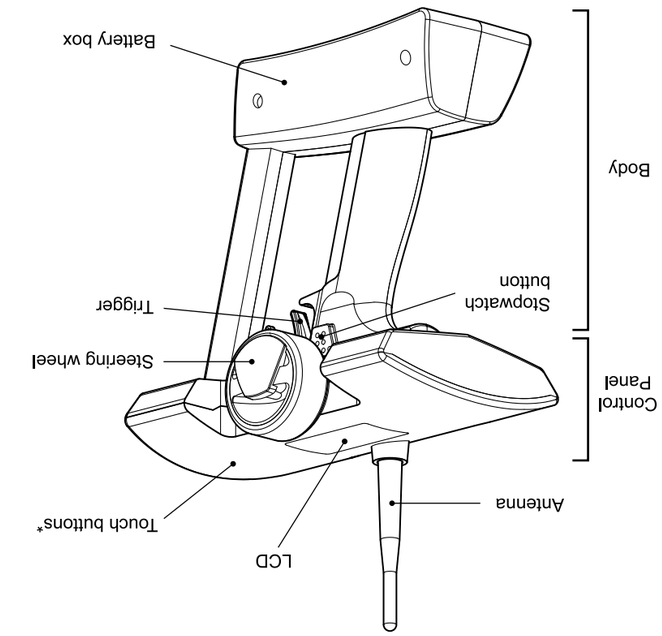
Li-ion Battery* Installation and Charging

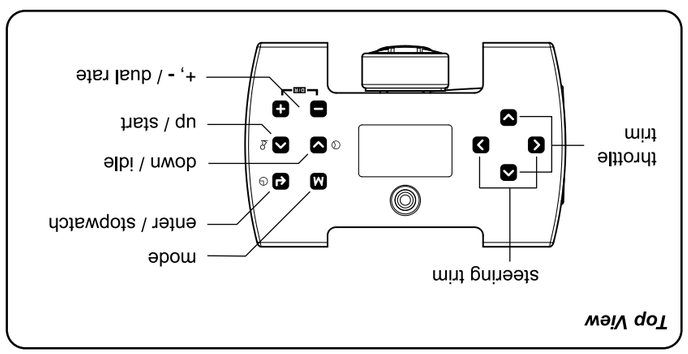
1. Lightly press the hook and pull up the tap to open the cover.
2. Place the Li-ion battery pack (NB-2LH) in the bottom and slide towards the front so that the battery pack is tightly sit.
3. Close the cover.
4. Check the battery setting, 7.4 V on "System mode".
5. Plug the charger into the charging port on the side. Charging takes approximately 2 hours.

* The optional items (battery pack and charger) are not included in the standard package.



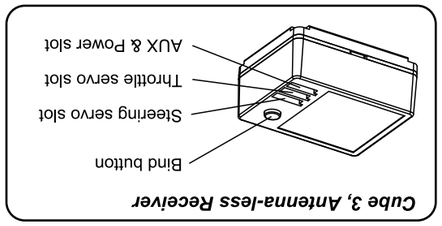
* ***Touch button*** : The control buttons are touch sensors and they only require a light finger touch to operate.
Important Note: To avoid an unintended operation, touch sensor buttons are automatically deactivated and go into hold mode after 10 seconds of inactivity. To reactivate the touch sensor buttons, simply rotate the steering wheel to left or right.





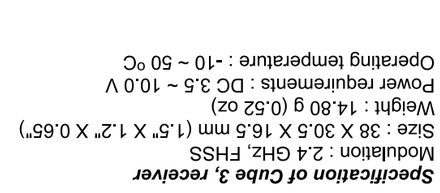
Specification of Husky 2.4G, transmitter

Modulation : 2.4 GHz, FHSS
Size : 185 X 120 X 270 mm
(7.28" X 4.72" X 10.63")
Weight : 482 g (17 oz)
Power requirements : DC 4.8 V ~ 7.4 V)
Operating temperature : -10 ~ 50 °C



Specification of Cube 3, receiver

Modulation : 2.4 GHz, FHSS
Size : 38 X 30.5 X 16.5 mm (1.5" X 1.2" X 0.65")
Weight : 14.80 g (0.52 oz)
Power requirements : DC 3.5 ~ 10.0 V
Operating temperature : -10 ~ 50 °C



1. Remove the 4 screws from the bottom of control panel.
2. Separate the control panel and the body by slowly pulling apart.
3. Rotate the control panel 180° degrees and carefully reinsert the control panel into the body. Be carefully not to bend the pin connectors inside.
4. Reinstall the 4 screws.

Directly Accessible Functions

Using the buttons on the control panel, the Digital Trim and the Dual Rate functions can be adjusted quickly and easily. Make instant fine adjustments without having to move around the LCD menu. The Stopwatch function is also accessed directly. Activation buttons for the Start Rate and the Idle Up functions are also available on the control panel.

Digital Trim

The digital trim button is located on the left side of the control panel. Steering and Throttle trim adjustments can be made by pressing the trim button in one of the 4 available directions. Up and down are for Throttle trim and right and left are for Steering trim. You will hear a beep with each increment of trim adjustment. The amount of each increment is based on the Trim rate which is programmable in the System mode. The trim positions are displayed both numerically and graphically on the LCD.
NOTE : Throttle trim changes only the center (neutral) point and not the end points. This is done to maintain your maximum speed and braking points.

Dual Rate

Dual rate adjusts the total steering servo throw simultaneously to the left and to the right end points. Reducing the dual rate value makes the steering less sensitive as the maximum amount of steering available is reduced. By pressing the the − or + buttons on the control panel. dual rate values are quickly adjusted with the result displayed on the LCD simultaneously. Note that the dual rate works in conjunction with the EPA settings in Circuit Mode. Nay charges you make to EPA settings will have an effect on dual rate values.

Stopwatch / Lap, Split Timer

Pressing the " ◷ " button on the control panel will activate the stopwatch function and display the timer on the LCD. The timer is started when the throttle is triggered and the lap stop is displayed when the blue lap time lever behind the steering wheel is pressed. To stop, press the " M " button, or to reset, press the " ◷ " button.

System Mode Functions

As shown in the Programming Map on page 15, System mode provides the programming for Model, MRV (Minimum Receiver Battery Voltage), LCD Contrast, Transmitter power selection.

Model Select

Your Husky can keep and handle the data for 10 individual models. Whenever you make any changes to the functional parameters, including the Digital trim and the Dual Rate settings, the data is automatically saved into the memory. The saved data is uploaded by using the Model Select. This function is not only useful for someone who has many cars, but great for quick setting changes by bringing up the model with all the data already programmed in previously.

Model Name Entry

For ease of identification, the model name function allows you to assign names up to 8 characters in length for each of your models up to 10 models. Following the memory location numbers, your model can also be identified by a number (0~9), which is always displayed before the model name.

Data Copy (Model Copy)

This function copies the entire contents of the currently stored model memory to another model memory. The model name which may already exist at the target memory location is not replaced by this operation.

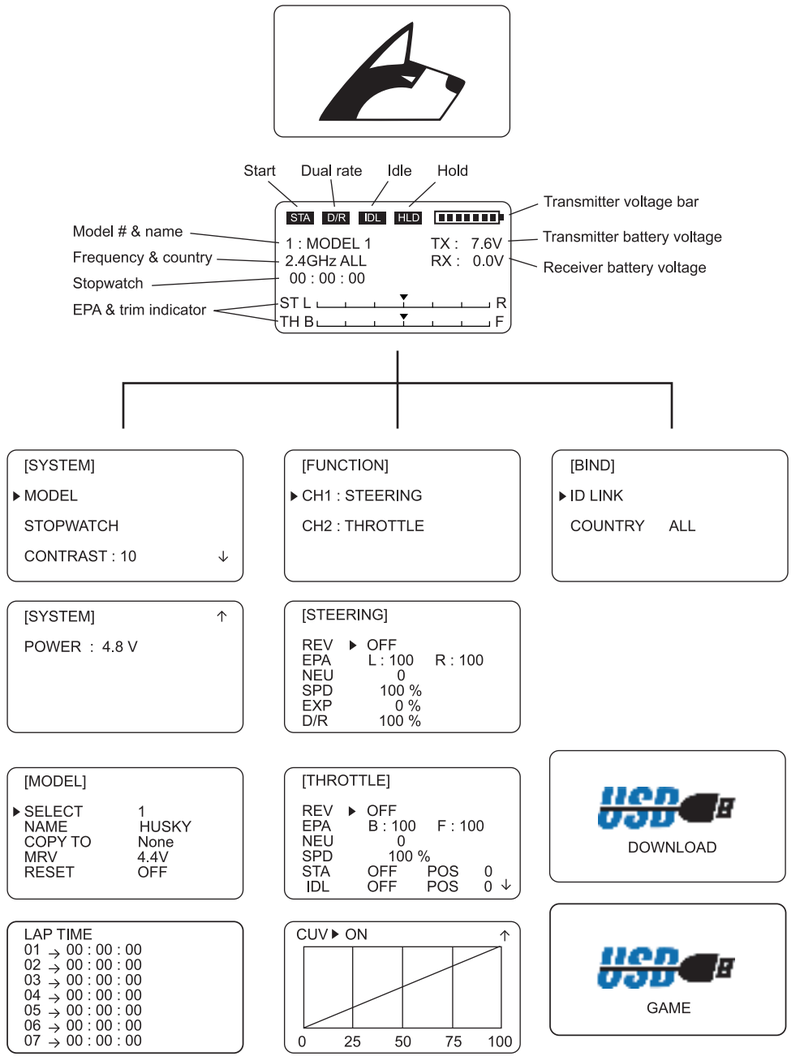
MRV (Minimum Receiver Battery Voltage)

Husky 2.4G and Cube receiver are capable of bi-directional data communication. Cube sends its battery voltage information in real-time to Husky 2.4G to be displayed on its LCD, and depending on the type of battery being used in the receiver side, the minimum voltage level can be set on the transmitter to trigger a warning beep in the event the voltage drops below certain level.
(Example: If a 4-Cell 4.8V, 1000mAh NiCd is used to the receiver, the MRV can be set to 4.5V)

Data Reset

The data reset function resets the parameters stored in the memory for the current model back to the factory default setting. Data Reset does not affect the parameters set under the System Mode or the data stored in other model's name. Please refer to the list of functions and parameters in the Appendix section to understand which parameters are affected by the Data Reset.

Flow Chart



LCD Contrast

This function allows a twenty five-level contrast adjustment of the LCD screen.

Lap time & Split time table

This page is not data input of any function but data table of stopwatch on Direct accessible functions. The numbers on left are number of lap and time on right is lead time of each lap. It helps your management of racing record.

Fail Safe

- Warning for out of range

Every radio control system has certain limitation to the controllable distance. Once the distance between the transmitter and the receiver goes beyond certain range, you can get into a trouble of uncontrollability. To prevent this type of trouble, HUSKY 2.4G monitors the signal strength and whenever it determines the range is over 70% of its maximum transmittal distance, it will give a warning beep.

- Warning for low receiver battery voltage

HUSKY 2.4G also displays the receiver's battery voltage and whenever the receiver's battery voltage drops below your pre-set voltage (programmable), it will give a warning beep so that you are cautioned.

- Set neutral position at control failure

In the event of receiver's failure to receive signals from the transmitter due to out of range, low battery, etc., the steering and throttle servos will automatically revert to the neutral or middle position to avoid being completely out of control.

Note: Fail-safe features will be activated only when used with Cube 3 receiver.

Function Mode Functions

Function Mode contains the most commonly used programming features that you'll likely be changing on the circuit.

Servo Reverse (steering, throttle)

This function allows you to change the direction a servo rotates, clockwise or counter clockwise, for Steering and Throttle independently.
NOTE When Servo Reverse is selected, the direction of the trim position deviation, if any, will also be reversed.

End Point Adjustment (EPA) (steering, throttle)

End Point Adjustment, also referred to as travel adjust or travel volume, allows the precise adjustment of maximum servo throws in either direction of the Steering and the Throttle. The maximum right/left steering and forward/brake position are set all independently. Remember, Dual Rate values are tied to the EPA setting for Steering servo.
NOTE : Be sure that steering and throttle operation does not apply excessive force to the servo horn. Excessive force applied to the servo horn may result in damage to the servo and loss of control.

Neutral (Trim) (steering, throttle)

Use this function to adjust the neutral position of the steering and throttle.

Speed (steering, throttle)

Adjusting speed allows you to adjust the steering and throttle servo's speed.

Exponential Sensitivity (steering)

Also known as the Exponential adjustments, this function is used to change the sensitivity of the steering and throttle servos around the neutral position. It has no effect on the maximum servo travels. For the throttle servo, the function changes the sensitivity of the throttle servo in the throttle trigger forward side.

Dual Rate (steering)

Dual Rate on Steering menu is same function as introduced on Direct Accessible Functions. Also Dual Rate adjustment is available at Steering menu on Function Mode.

Start Rate (throttle)

This feature allows for smooth and even acceleration under adverse conditions, such as slippery circuit. When the start function is activated, merely operating the throttle trigger passing the preset Trigger point causes the throttle servo to automatically operate at programmed Start rate. We recommend you try out the function with various values of Start rate and Trigger point to find the optimum point at which the tries do not loose their grip and the car accelerates smoothly.
NOTE : The Start function is only available at the very first triggering. To activate it again for the next run, press the start button on the control panel again.

Idle Up (throttle)

The Idle up function is normally used to advance the throttle position slightly, making it easier to start gas cars.
NOTE : Idle up is available only at first triggering. For activating, press Idle up button on the control panel again.

Throttle Curve

This is advanced feature of Exponential. Exponential allows adjustment of full range but Throttle curve allows each throttle rates for 4 sections of full throttle range. It useful engine control of gas car. The engine power and carburetor opening is not working proportionally. Generally there are 15 ~ 30% carburetor opening for 50% engine power. So throttle curve setting provides proportional trigger works.

USB Connection for PC Game Control (using optional cable)

Your Husky has a USB port located behind the control panel. By connecting a USB cable between your Husky and a PC, your Husky can function as a PC game controller or a joystick. To use as a PC game controller, set the Power Switch to Standby position (S/B), connect the USB cable into your Husky and your PC. The LCD on your Husky will display "USB game". Your PC should recognize the Husky as a "2 axis 6 button joystick with hat switch". For the first time use, calibration should be performed by clicking on the Game Controllers icon in the Control Panel of your Windows PC.

Firmware downloading on internet

Proton will continue to monitor the customers' and developers' experiences in the field and release firmware updates as necessary. Whenever an update is released, it will be available for download from our support website at www.teamproton.com/support. Your Husky's firmware version is displayed briefly on the right bottom side of the screen when powered on.