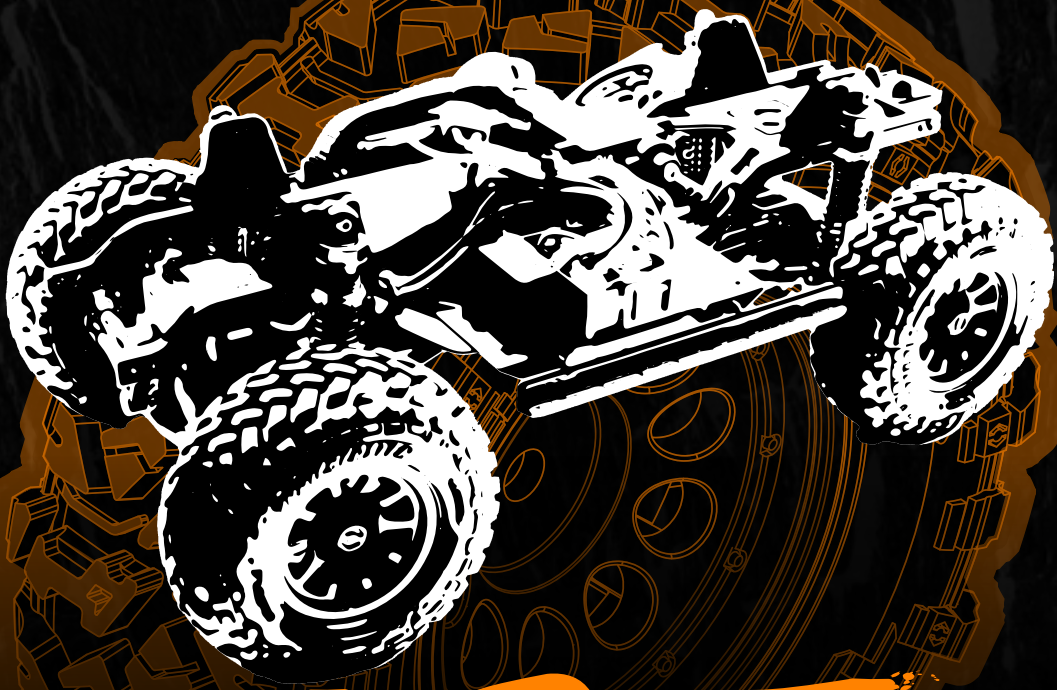
SG

VENTURE 18

Startup Guide



STOP AT NOTHING.

WWW.HPIRACING.COM

hpi·racing

En 160800-006-SG

Thank you

Thank you for selecting this HPI RACING product!

This kit is designed to be fun to drive and uses top quality parts for durability and performance. The instruction manual you are reading was designed to be easy to follow yet thorough in its explanations. HPI Racing wants you to enjoy driving your new R/C kit. If you come across any problems or need some help getting through a step, you can contact us on the internet at www.hpiracing.com.

This is a high performance R/C kit, and it requires regular maintenance for best performance. If you don't do regular maintenance, the performance will suffer. HPI has all the necessary parts and accessories available to keep your car performing at its best.

The caution or attention symbols will warn you about steps that can be very dangerous.

Please read and understand the instructions carefully before proceeding.



Cautions — Failure to follow these instructions can damage your kit, and cause serious bodily injury or death.



Attention — Failure to follow these instructions can cause injury to yourself or others.

You might also cause property damage or damage your kit.



Cautions

Before Running	Read this manual before you operate the vehicle. If necessary, ask a parent, guardian, or responsible adult to help you.
While Operating	Do not operate the vehicle on public streets. This can cause serious accidents, personal injury, or property damage.
	Please do not run near pedestrians or small children.
Before Operating	Make sure that all screws and nuts are properly tightened.
	Always use fresh batteries for your transmitter to avoid losing control of the model.
	Make sure that the vehicle battery is fully charged.
	Make sure that the throttle trigger is in the neutral position.
After Running	Switch off the vehicle FIRST, then switch off the transmitter. Disconnect the battery from the ESC/controller.
	After you operate an HPI RACING product, we strongly suggest you complete the routine maintenance. Without this maintenance, wear can increase and damage can occur to the motor and chassis.
Battery safety	Please be careful when handling the battery. It will be hot after running. If the wire is frayed, a short circuit can cause a fire.

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VENTURE 18

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	Driving in Wet Conditions	**23**

Additional Information

QS *Quick Start Guide* + www

TG *Technical Guide* + www

SG *This Guide* www

RM *Radio System Manual* www

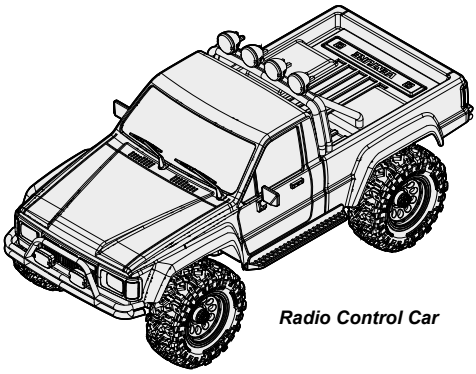
EM *ESC Manual* www

UG *User Guide* www

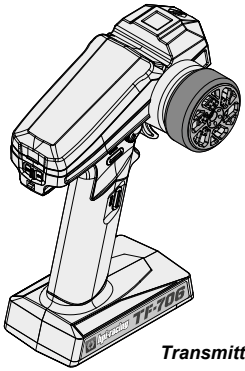
EM-1-1

NOTE - This refers to the relevant guide (as above) and the relevant section. In this example, Section 1-1 of the ESC Manual.

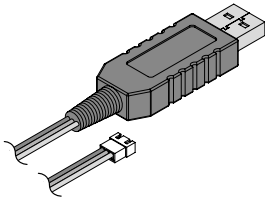
Components



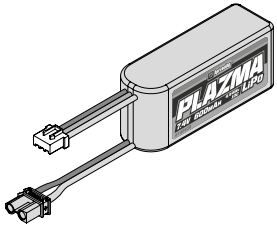
Radio Control Car



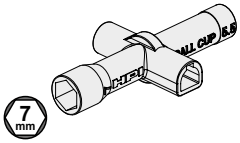
Transmitter



160839
7.4V USB LiPo Balance Charger

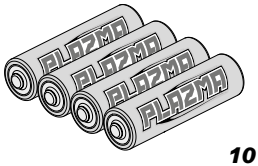


160838
Plazma 7.4V 600mAh 10C LiPo Battery Pack



Z950
Cross Wrench

Equipment Needed

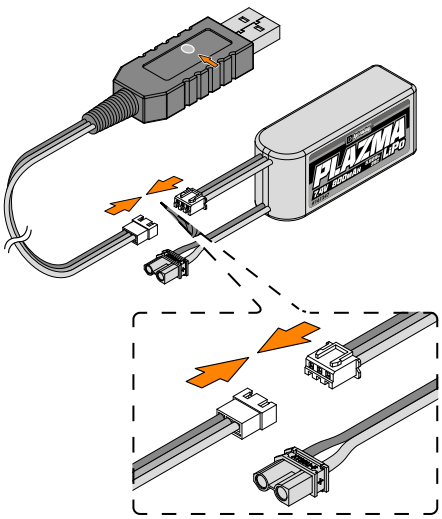


101939
PLAZMA 1.5V Alkaline AA Battery

1-1 *Charging Car Battery*

Tip See Section 1-3 for body and battery removal process. 1-3

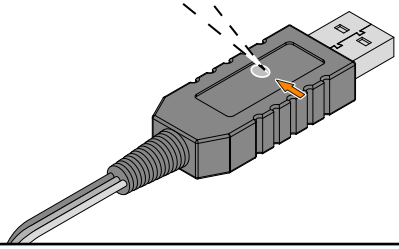
1 *Connect the charger to the supplied battery pack. Make sure that the connectors are correctly aligned. Do not force the connectors together.*



2 *The charger will automatically start to charge your battery pack. The USB charger will stop charging when it detects the battery pack is at full charge.*

LED Status

Solid Red:	Charging
LED OFF	Fully Charged
Flashing Red (No Battery pack plugged in)	Standby
Flashing Red (Battery pack plugged in)	Error



If this error occurs again, the battery pack may be damaged and may need replacement.

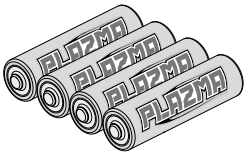
Caution The USB charger requires a USB power adapter with an output of at least 2 A.

Caution Do not use NiCd/NiMH battery chargers for LiPo batteries. If you do not use a special charger for LiPo batteries, they will be damaged.

1-2 Setting Up Transmitter

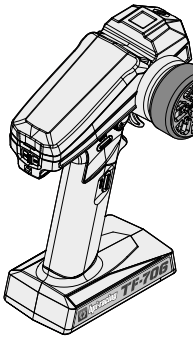
1-2-1 Transmitter Battery Installation

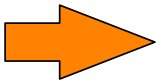
1 *Open the battery cover on the bottom of the transmitter. Install the batteries.*



101939
PLAZMA 1.5V Alkaline AA Battery
(Not Included)

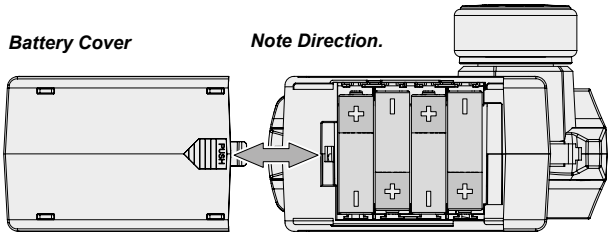
! **Do not mix batteries of different ages or types.**





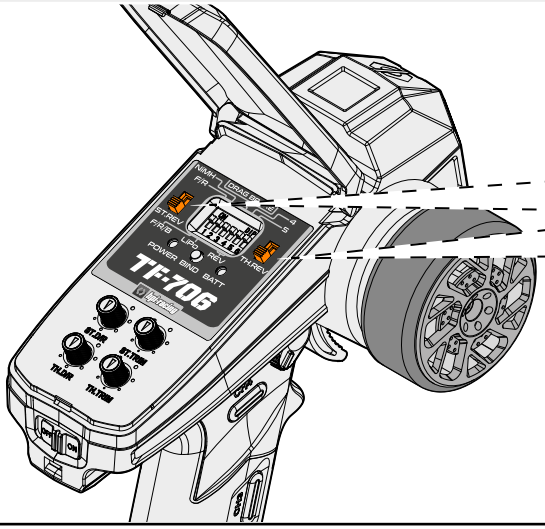
Battery Cover

Note Direction.



1-2-2 Transmitter Preparation

1 *Check direction of reverse switches.*

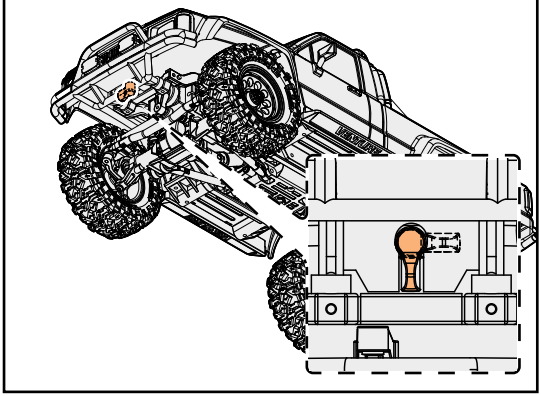




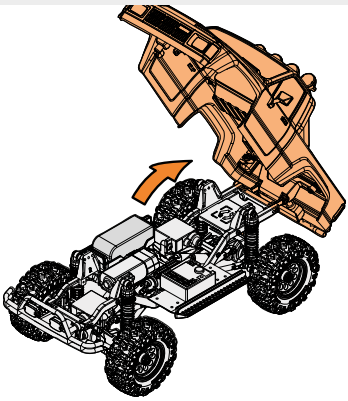
1-3 Preparing the Chassis

1-3-1 Removing the Body

1 *Rotate clip to release body.*



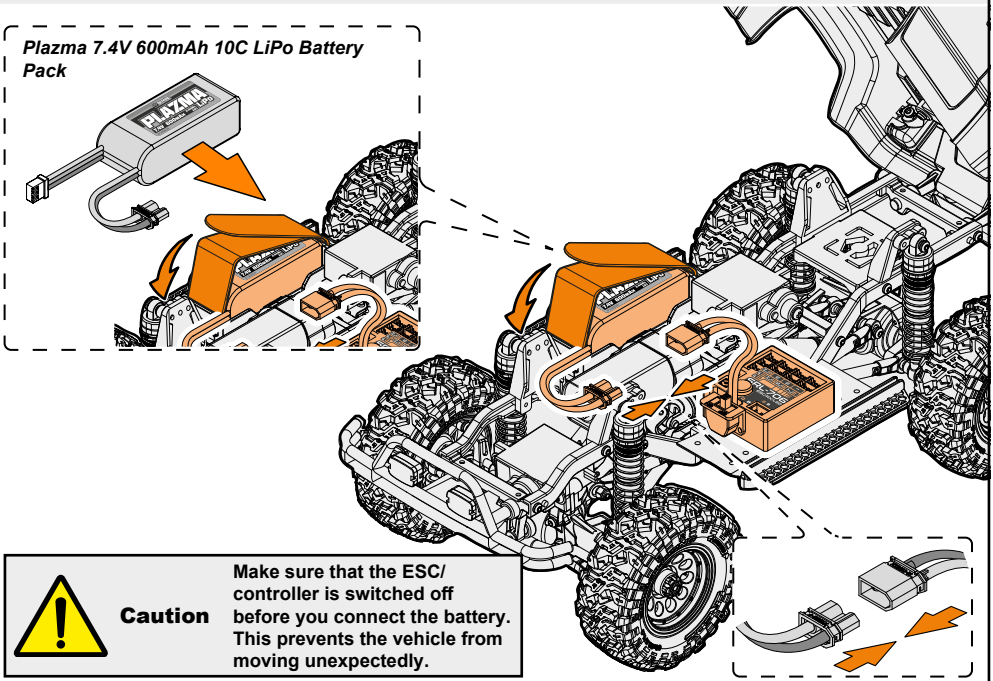
2 *Pivot the body upwards.*



1-3-2 Battery installation

1 *Secure the battery to the chassis with the Velcro strap. Connect the battery to the ESC/controller.*

Plazma 7.4V 600mAh 10C LiPo Battery Pack



Caution Make sure that the ESC/ controller is switched off before you connect the battery. This prevents the vehicle from moving unexpectedly.

2-1 ESC Setup

Set up the ESC before its first use. After the initial setup, you do not need to repeat the procedure before each run. Read the instructions before you start. Make sure that you understand each step. The setup procedure moves quickly.

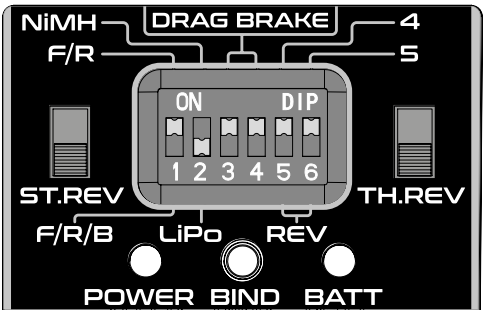
2-1-1 ESC Setup - HPI SRL-706 3-in1 ESC/RX/LED Controller (Brushed)

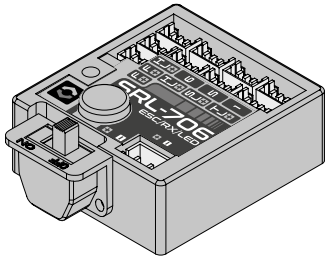
VENTURE 18

1 *HPI SRL-706 3-in1 ESC/RX/LED Controller*

The HPI SRL-706 3-in1 ESC/RX/LED Controller is programmed using the DIP switches on the TF-706 Transmitter. The factory settings are shown below.

! For the Flux (Brushless) version see next section 2-1-2.





HPI SRL-706 3-in1 ESC/RX/LED Controller

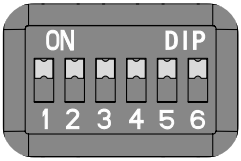
2 *Select Correct Battery Mode using the DIP switches on the TF-706 Transmitter.*

NOTE - The DIP switches only work with the SRL-706 installed in brushed models. They do not affect the ESC installed in brushless models.

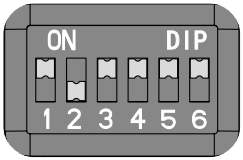
Caution

The speed control has 2 types of battery modes to choose from depending on which type of battery you use (NiMH or LiPo).

Select the correct battery mode for the battery you are using. An incorrect setting may cause the battery to swell, emit smoke, explode, or become permanently damaged.



NiMH



LiPo

! Factory setting is LiPo.

i RM 4

2-1-2 ESC Setup - HPI FLX18-3S20-WP-T Flux Crawler ESC (Brushless)

VENTURE 18 FLUX

The ESC is set up with Auto-LiPo cut-off enabled by default, ready to use with the included LiPo battery pack. We recommend a 2S or 3S LiPo battery for use with this ESC.

If using an alternative LiPo or Li-Ion battery, you may need to adjust the cutoff voltage.

If using a NiMH battery, the Auto LiPo cutoff should be disabled, otherwise the cut-off will engage too early and the run time will be reduced.



i EM 3

! **For Standard Brushed (Non Flux) version see previous section 2-1-1.**

! **The HPI FLX18-3S20-WP-T Flux Crawler ESC can only be programmed using an external Program Box - the dip switches do not affect the Brushless ESC.**

Caution

The speed control Auto Cutoff must be set depending on which type of battery you use (NiMH or LiPo).

Select the correct battery mode for the battery you are using. An incorrect setting may cause the battery to swell, emit smoke, explode, or become permanently damaged.

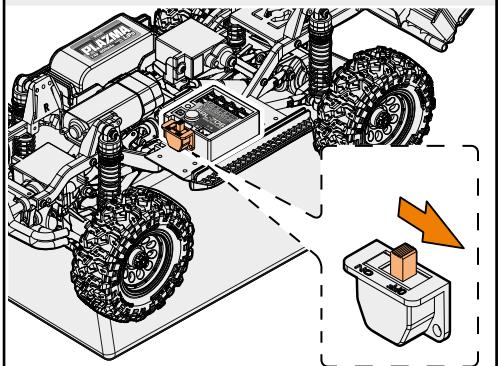
Caution

The Flux ESC cannot be programmed using the DIP switches on the TF-706 transmitter. It can only be programmed using a HOBBYWING LED Program Box.

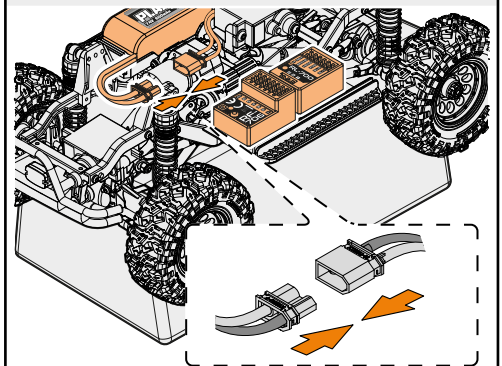
2-1-3 ESC Throttle Calibration - HPI FLX18-3S20-WP-T Flux Crawler ESC (Brushless)

VENTURE 18 FLUX

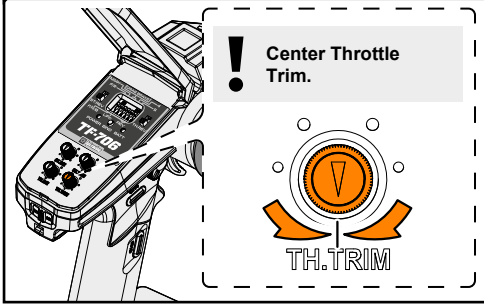
1 *Put the car on a stand, making sure it is switched off.*



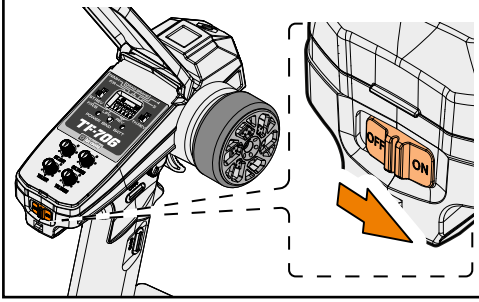
2 *Connect Battery.*



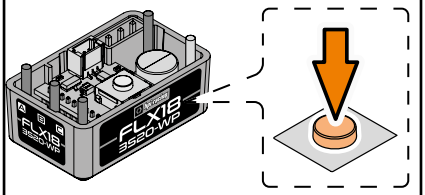
3 *Center throttle trim.*



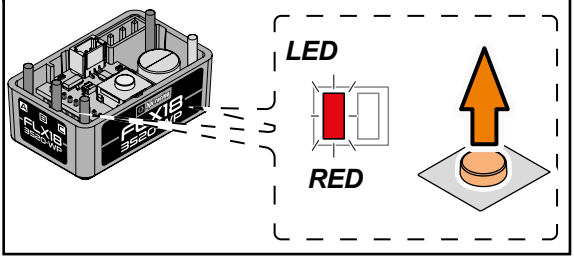
4 *Switch on transmitter.*



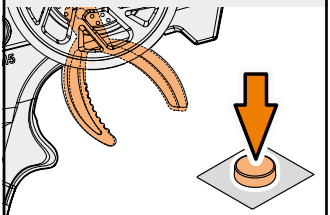
5 *To enter calibration mode: Press and hold the ON/OFF button.*



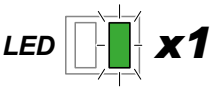
6 *Release the ON/OFF button once the LED flashes.*



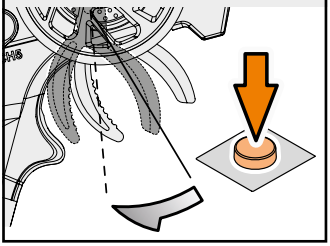
7 *Leave the trigger in the neutral position. Press the ON/OFF button.*



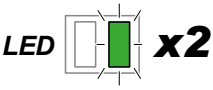
8 *The green LED flashes once. The motor beeps once.*



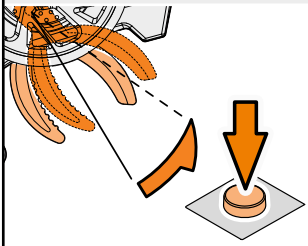
9 *Move trigger to full throttle and press the ON/OFF button.*



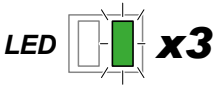
10 *The green LED flashes twice. The motor beeps twice.*



11 *Move the trigger to full brake and press the ON/OFF button.*



12 *The green LED flashes three times. The motor beeps three times.*



2-2 *Binding/Pairing*

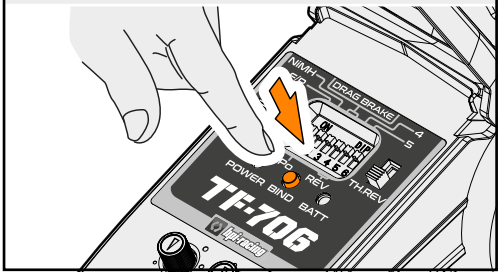
The transmitter and receiver are bound (paired) at the factory. The fail-safe setting is also preset at the factory.

The transmitter and receiver should connect automatically when both are switched on. See **Section 3** for the switch-on procedure.

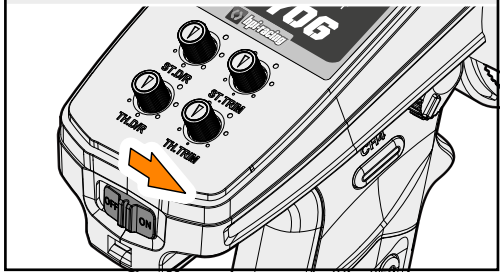
Caution **If you change transmitters or add a receiver, you must re-bind before operating your vehicle.**

If the car and transmitter do not bind after switching on, or you change the transmitter or receiver, do the following:

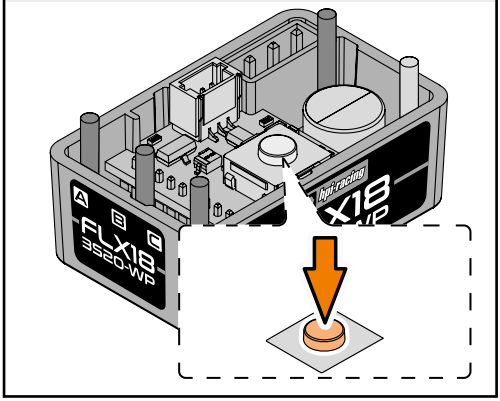
1 ***Place the transmitter and receiver within 1 meter of each other. Press and hold the BIND button on the transmitter.***



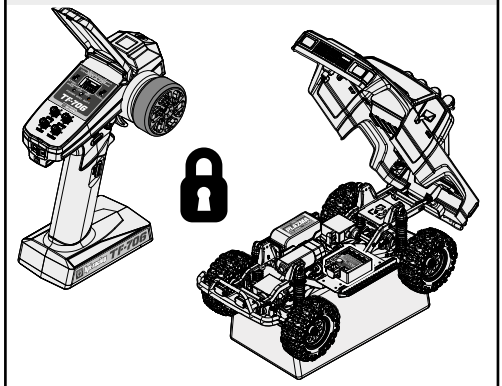
2 ***Without releasing the BIND button, switch the power switch to the ON position. The Power LED will flash quickly. Release the BIND button after 1 second.***



3 ***Switch on the ESC to supply power to the RF-706 receiver. Wait for 1 second. The LED will flash quickly until the connection is established.***



4 ***Binding Complete.***

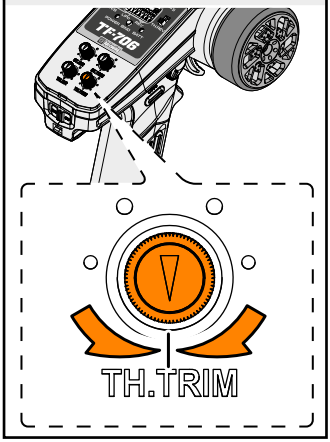


Caution **Any new binding of transmitter & receiver will clear the preset fail safe.**

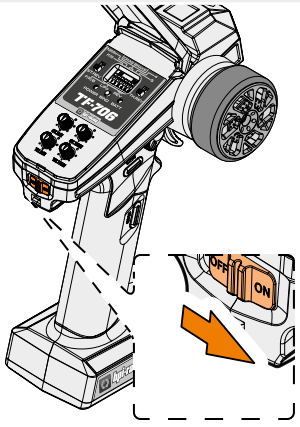
i 5

3 Switching On

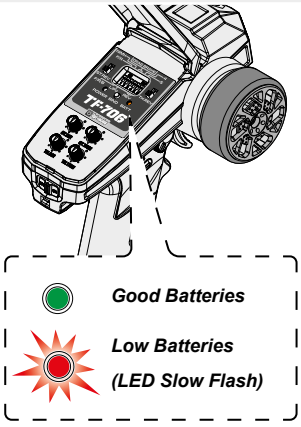
1 *Center Throttle Trim.*



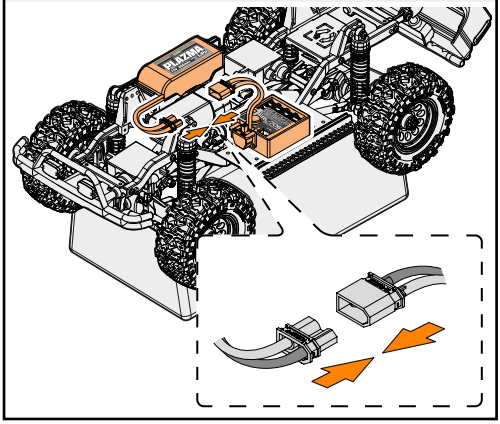
2 *Switch on Transmitter.*



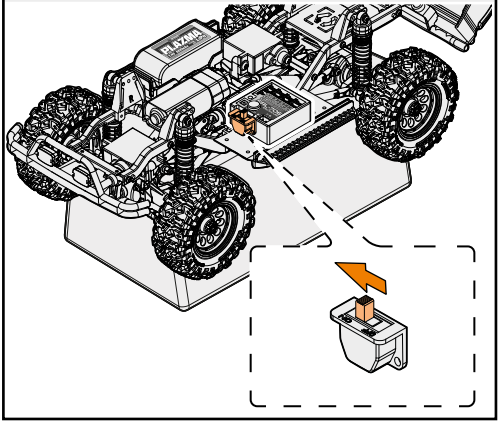
3 *Check Batteries.*



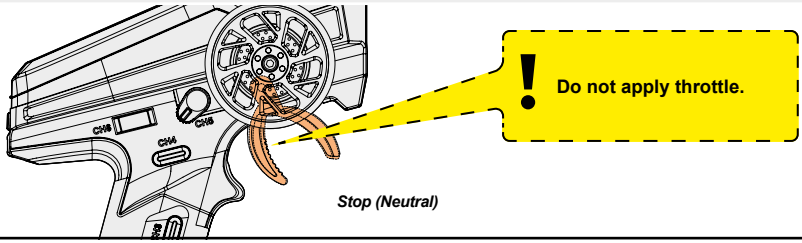
4 *Place the vehicle on a stand. Connect the battery to the ESC/controller.*



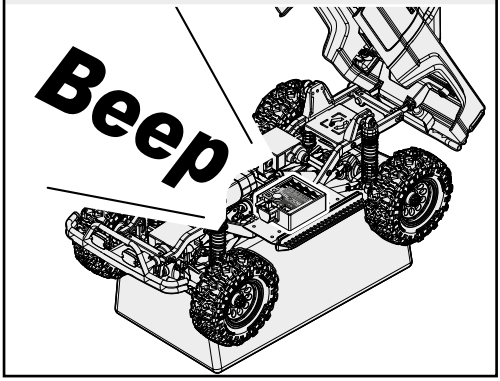
5 *Switch on car.*



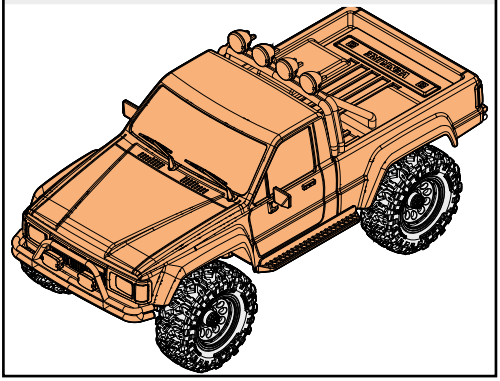
6 *Leave the throttle trigger in the neutral position.*
SRL-706: Wait approximately 3 seconds for the ESC self-check before operation.



7 *If you hear a tone signal, the setup of the speed control has been completed.*



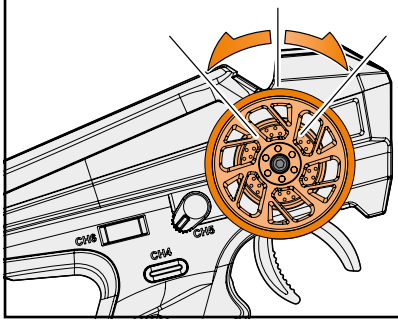
8 *Refit body and you're ready to go!*

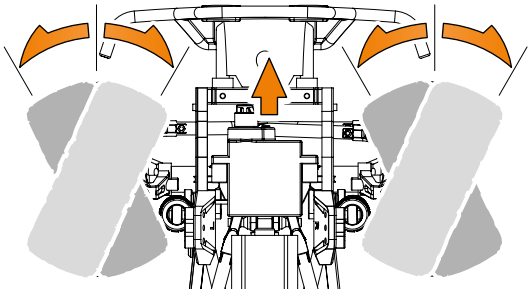


4 Using the Transmitter

4-1 *Steering*

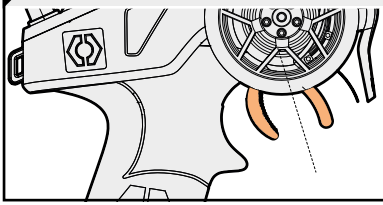
1 *Steering is normally back = left, forward = right. This can be changed using the Steering Reverse switch.*



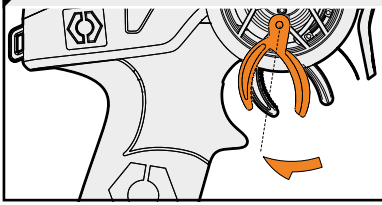


4-2 *Acceleration*

1 *Throttle Trigger - neutral position*



2 *Throttle Trigger - forward*



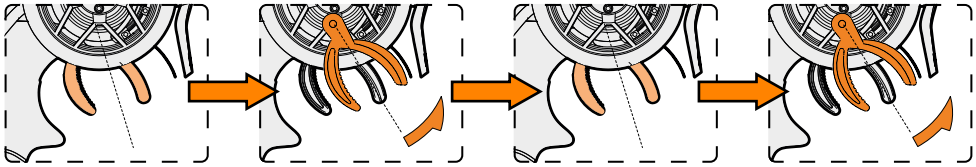
4-3 Reverse/Braking

The reverse and braking behavior can be changed to suit your driving requirements.

- Brushed Models: Use DIP Switch 1 on the transmitter to change the setting.
- Brushless Models: Press the CH4 button on the transmitter to change the setting.

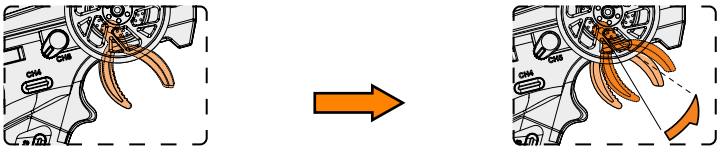
4-3-1 Trail Driving (Normal)

Braking		Reverse	
1. Stop (Neutral)	2. Brake	3. Stop (Neutral)	4. Reverse



4-3-2 Rock Crawling

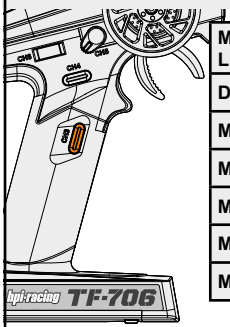
Braking	Reverse
1. Stop (Neutral)	2. Reverse



4-4 Auxiliary Channels

4-4-1 CH3 - Light Controller

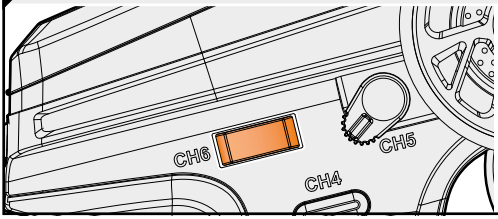
1 ***Press the CH3 button to cycle through the different light modes. NOTE - After the receiver is turned on, all the lights will be on for one second and then go out. Every time the receiver is turned on, the LED lights operating mode resets to Default Mode.***



Mode/ Light	Head Light	Tail Light (Running)	Tail Light (Braking)	Turn Signal (Turning)	Turn Signal (Flashing)	Fog Light
Default	OFF	ON - Low	ON - High	OFF	OFF	OFF
Mode 1	ON - Low	ON - Low	ON - High	OFF	OFF	OFF
Mode 2	ON - Low	ON - Low	ON - High	ON	OFF	OFF
Mode 3	ON - High	ON - Low	ON - High	OFF	OFF	OFF
Mode 4	ON - High	ON - Low	ON - High	OFF	OFF	ON
Mode 5	ON - High	ON - Low	ON - High	OFF	ON	ON

4-4-2 CH6 - 2 Speed Transmission

1 *This vehicle has 2 gears. Use the CH6 switch to change between high and low gear.*



While stationary:

Move the CH6 switch to position 1 to engage high speed - used for trail driving.

While stationary:

Move the CH6 switch to position 2 to engage low speed - used for rock crawling.

4-4-3 CH4 and 5

Brushed Models: CH4 & CH5 have no function for this vehicle, but can be used for optional accessories.

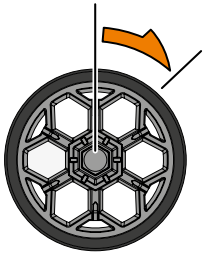
Brushless Models: CH5 has no function for this vehicle, but can be used for optional accessories.

Tip

See separate Transmitter Manual for more detailed information.

RM

4-5 *Practice Turning*

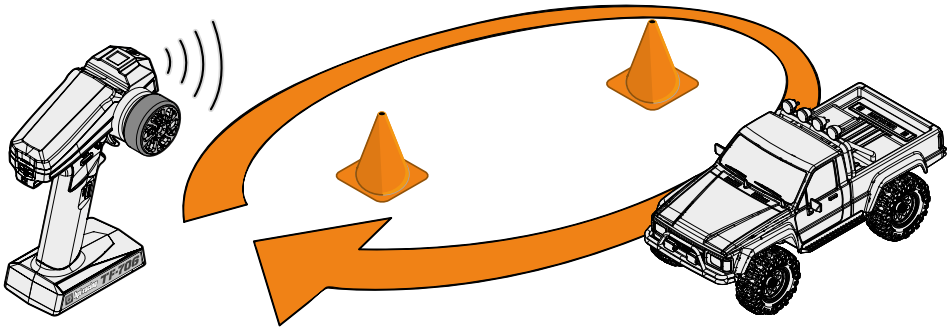


Install body and enjoy!

Allow the car to cool down for 15 minutes between each run.

Remember: When driving the vehicle directly toward you, the steering wheel operation is reversed. Turn the steering wheel right to move the vehicle to your left. Turn the steering wheel left to move the vehicle to your right.

Once you become comfortable driving your RC car, practice driving on a track with cones.



Caution

Do not run in water or sand.

Do not run on public streets or highways. This could cause serious accidents, personal injuries, and/or property damage.

5 Fail Safe System

This car has a built-in fail safe system that will activate if the radio glitches, either because of interference or if the car goes out of range.

Brushless Models: RF-706: If the radio signal is lost, CH2 stops sending a throttle signal.
Brushed Models: SRL-706: If the radio signal is lost, the integrated ESC applies the brake.

The fail safe system has been set up at the factory, but you should become familiar with the function of the fail safe and check the operation before running.

Cautions **Any new binding of transmitter & receiver will clear the preset fail safe.**

Situations when the fail safe will operate:

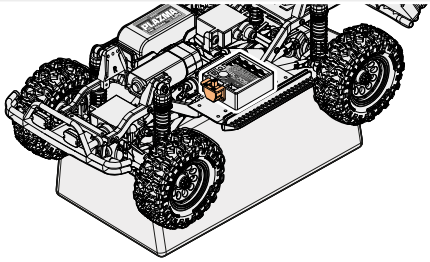
HPI RF-706	***When transmitter radio signal is cut off.***

If the receiver does not receive a signal, its LED flashes slowly.

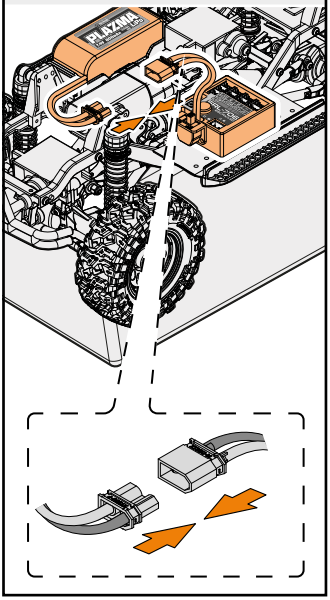
Cautions **The fail safe cannot completely protect your car.**

5-1 *Checking Fail Safe*

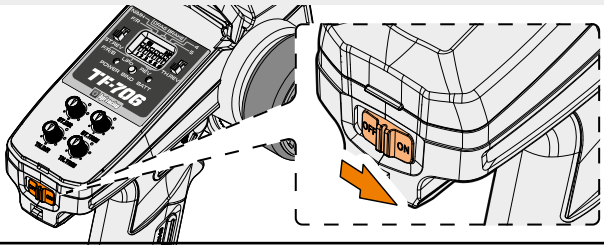
1 ***Place the vehicle on a stand or turn it upside down. Make sure that the wheels cannot touch the ground. Switch off the vehicle.***



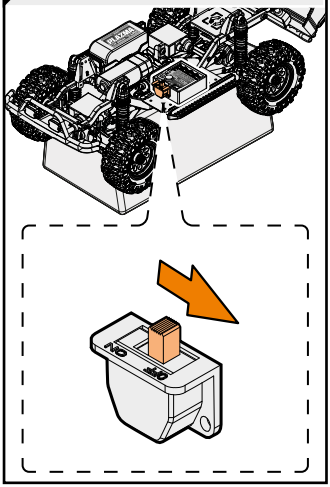
2 ***Connect Car Battery, if required.***



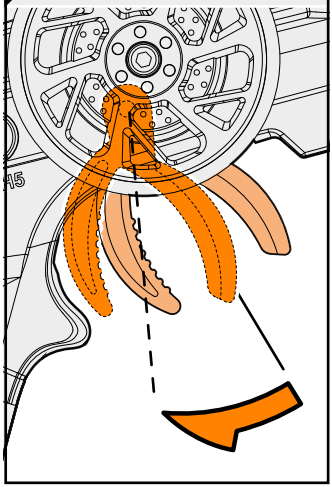
3 ***Switch on transmitter.***



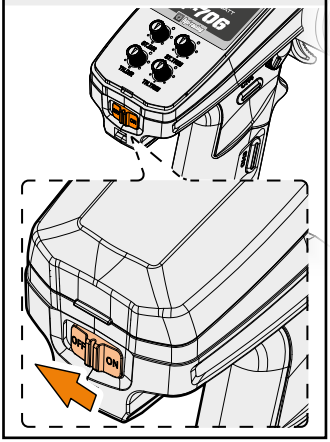
4 *Switch on car.*



5 *Activate throttle.*



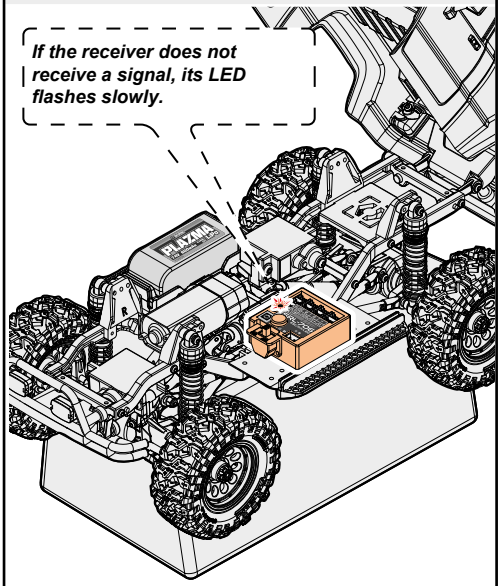
6 *Turn OFF transmitter without releasing throttle.*



7A VENTURE 18

LED light will flash and vehicle will not move. This means that the fail safe is working properly.

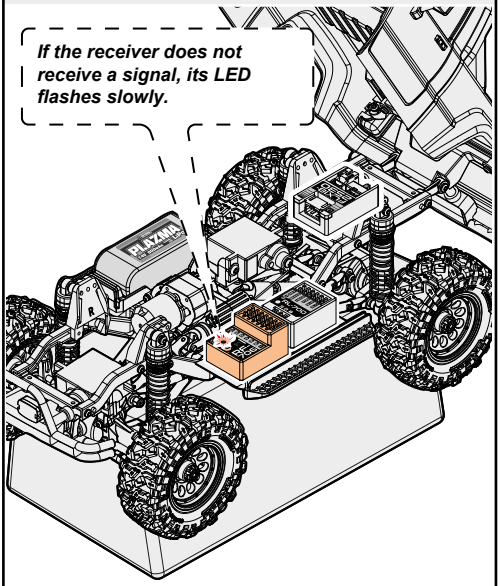
If the receiver does not receive a signal, its LED flashes slowly.



7B VENTURE 18 FLUX

LED light will flash and vehicle will not move. This means that the fail safe is working properly.

If the receiver does not receive a signal, its LED flashes slowly.

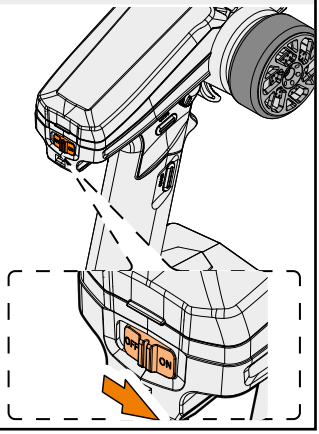


Caution

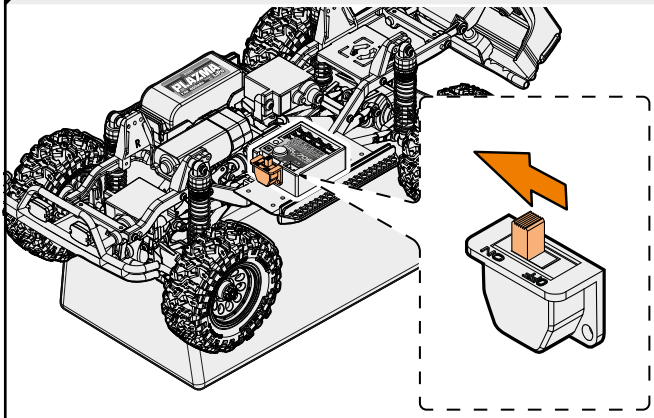
If the receiver loses the radio signal, check the response for the installed receiver: RF-706 stops the CH2 signal; SRL-706 applies the brake. Check the fail-safe before each run.

5-2 Fail Safe Setup

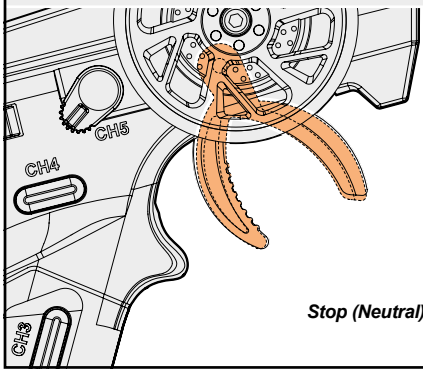
1 *Switch on transmitter.*



2 *Switch on car (receiver).*

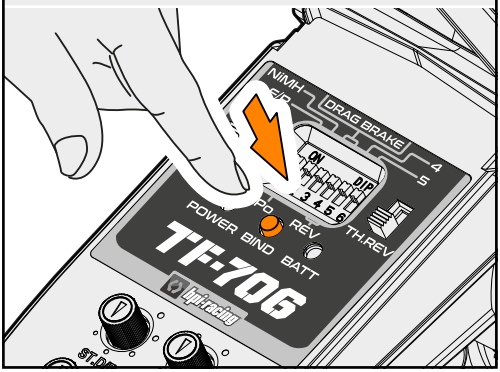


3 *Leave the throttle trigger in the neutral position.*



Stop (Neutral)

4 *Press and hold the BIND button on the transmitter for 3 seconds. The transmitter will beep to confirm that the fail safe setting has been saved.*



5 *To make sure that the fail-safe operates correctly, refer to Step 7 in Section 5-1.*

i 5-1

Attention Repeat the procedure in Section 5-1 to make sure that the fail-safe operates correctly.

i 5-1

6 Checking Radio Range

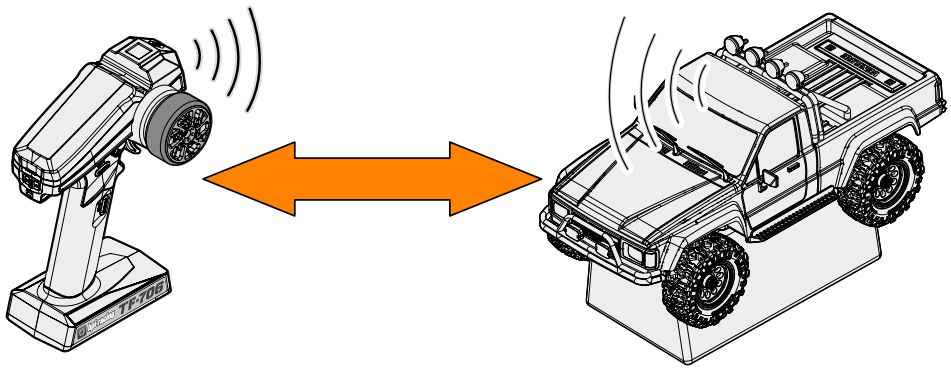
To check the radio range safely:

1. Ask another person to hold the vehicle securely.
2. Walk to the farthest distance from the vehicle at which you plan to operate it.
3. Operate the transmitter controls. Make sure that the vehicle responds correctly.

If the response is delayed, the signal is lost, or the vehicle behaves unusually, stop the test. Correct the problem before you operate the vehicle.

Always switch on the transmitter first, then the model.

If the model is powered on before the transmitter, you may lose control.



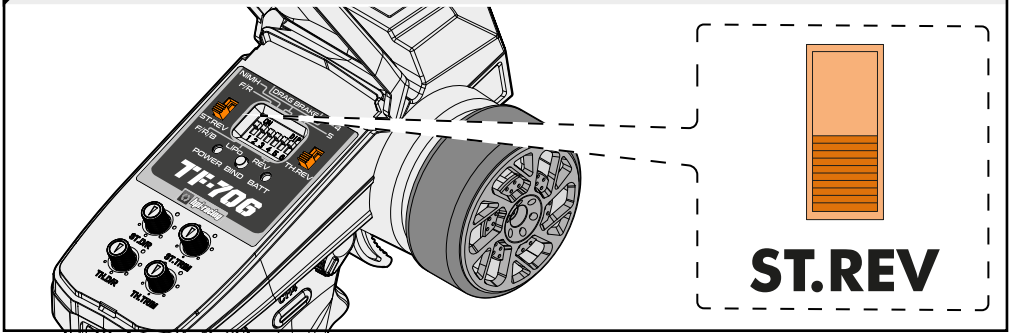
Caution

2.4 GHz radio frequency only functions by line of sight, so keep the vehicle in sight at all times. Obstacles may interfere with the radio signal and cause loss of control.

7-1 Steering Adjustments

7-1-1 Steering Reverse

1 *To reverse the steering direction, e.g., for left-handed use.*



7-1-2 Steering Dual Rate

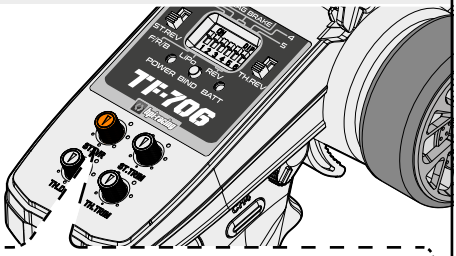
1 *The Steering Dual Rate adjustment controls the maximum steering travel in both directions with a single adjustment.*

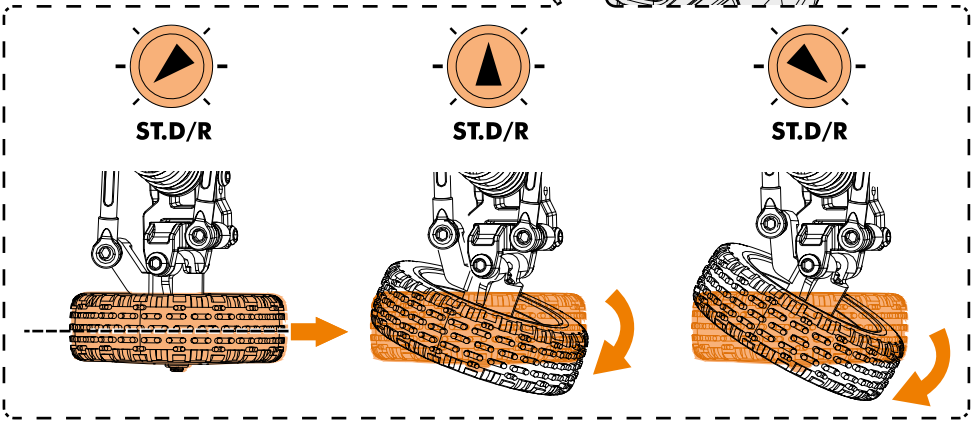
Use this setting to adjust how far the front wheels can turn to suit the track and driving conditions.

Clockwise = More steering travel

Counterclockwise = Less steering travel

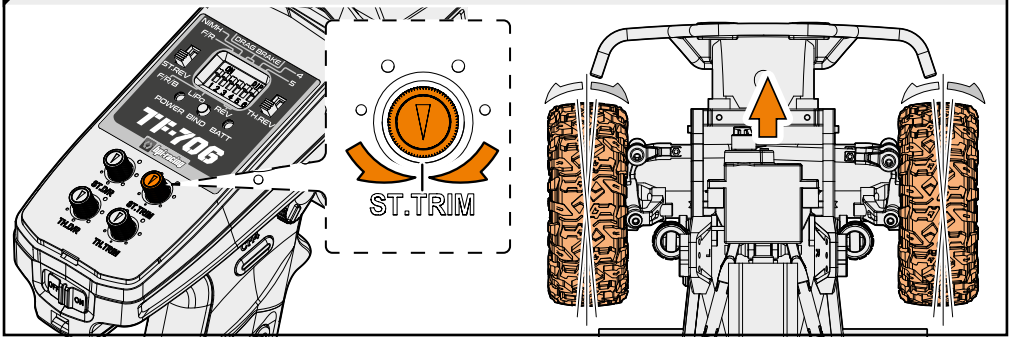
After adjustment, make sure that the wheels turn freely through the full steering range.





7-1-3 Steering Trim

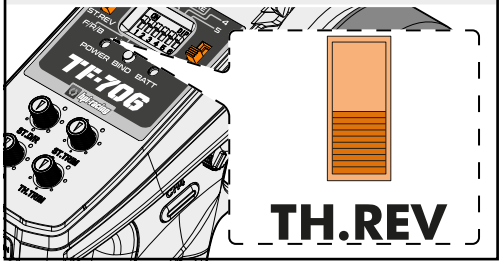
1 *Adjust the steering trim until the wheels are correctly aligned and the car drives straight. You will need to restart the receiver to recognize the new neutral position.*



7-2 *Throttle Adjustments*

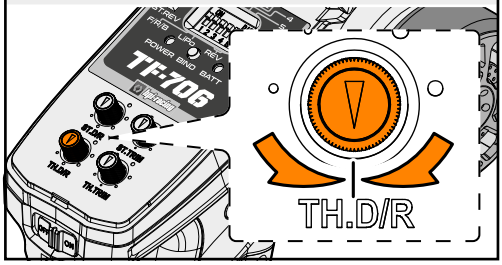
7-2-1 Throttle Reverse

1 *To Reverse the Throttle Direction*



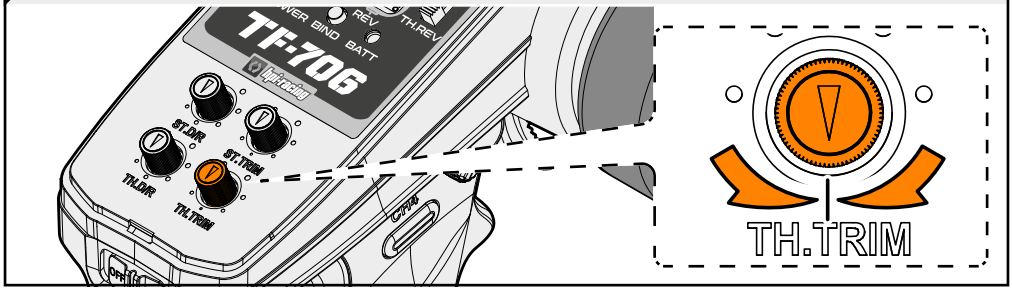
7-2-2 Throttle Dual Rate

1 *Electronically scales the throttle trigger input to limit the vehicle's maximum speed and proportional braking power through the ESC.*



7-2-3 Throttle Trim

1 *If the vehicle moves without any throttle input, adjust the Throttle Trim until the vehicle remains stationary. You will need to restart the receiver to recognize the new neutral position.*

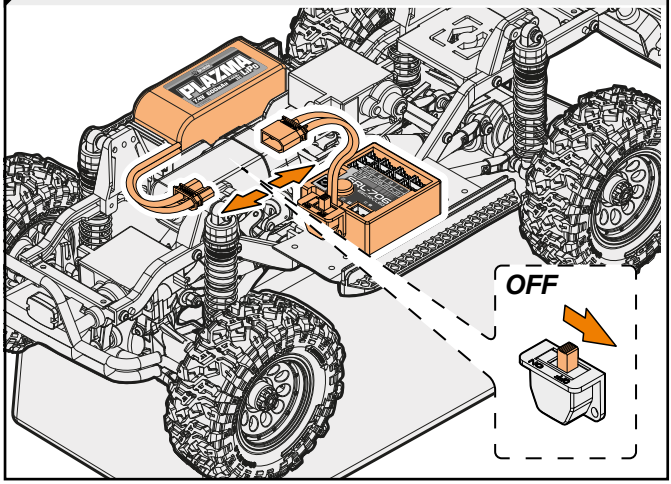


Attention

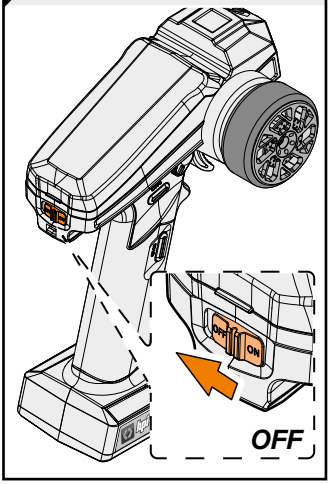
Switch off the vehicle FIRST, then switch off the transmitter. Disconnect the battery from the ESC/controller.

If you switch off the transmitter first before the R/C car, you may lose control of the R/C car.

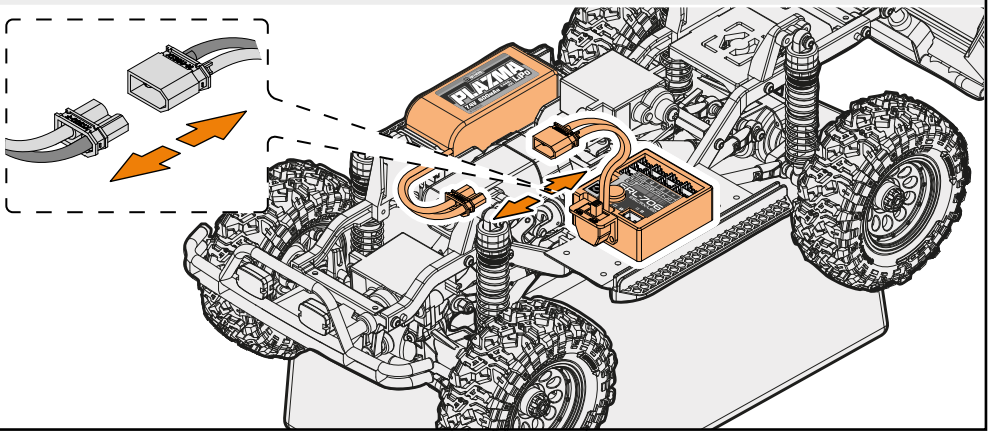
1 *Place the vehicle on a stand. Switch off the vehicle.*



2 *Switch off transmitter.*



3 *Disconnect Battery.*



Caution

Disconnect the battery when you are not running the vehicle.

The vehicle may run out of control or the battery can overheat and cause a fire.

Driving in Wet Conditions

Caution

This HPI vehicle is NOT designed to be driven in wet conditions. Driving in wet conditions will require additional vehicle preparation and maintenance.

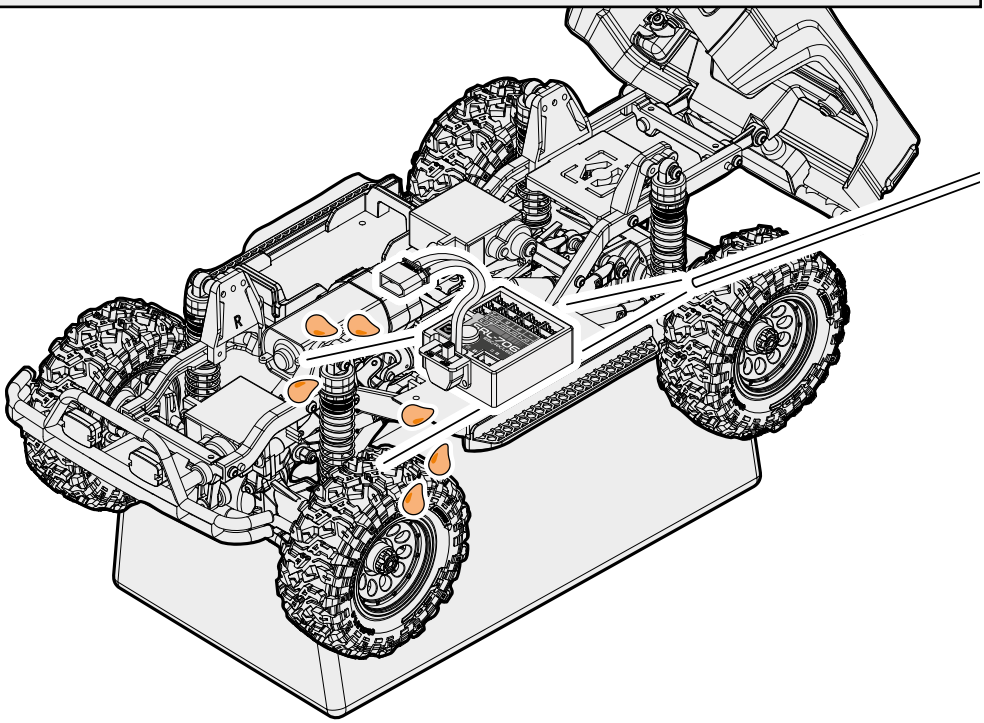
Caution

Never drive the vehicle in stormy conditions where lightning could be present.

The electronic components are not waterproof; always keep them protected from rain and water.

The electric motor is not designed to be submerged in water. If water gets inside, it can reduce the life of the motor.

Most LiPo battery packs are not designed to operate in wet conditions. Consult the instruction manual or manufacturer for limitations.



If the vehicle accidentally becomes wet, follow these maintenance instructions.

1. Remove all water/mud and dry the vehicle completely after driving.
2. Check the vehicle for trapped water in the tires, transmission, etc.
3. Some metal parts like bearings and hinge pins will need lubrication after driving in wet conditions.
4. Inspect the inside of the radio enclosure after driving in wet conditions.
5. Adjust wiring and seals as needed to prevent water damage.
6. After running in water, dry off any water from the ESC and connectors.



HPI RACING A/S

www.hpiracing.com
HPI Racing A/S
Jegindøvej 21
DK - 8800 Viborg
Denmark
Email: info@hpiracing.com

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