

EXPEC GT 2.4G
EXPEC 3-CHANNEL RADIO CONTROL SYSTEM



**INSTRUCTION MANUAL
FEDERAL COMMUNICATIONS COMMISSION
INTERFERENCE STATEMENT**

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 according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which if found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet other than the receiver's
- Consult the dealer or an experienced radio/TV technician for assistance.

CAUTION:

To assure continued FCC compliance:

(1) Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Label Compliance Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

EXPEC GT 2.4G R/C System

EXPEC GT 2.4G

EXPEC 3-CHANNEL RADIO CONTROL SYSTEM

TAMIYA

CE 0682

Thank you for purchasing this EXPEC GT-I 2.4G Radio Control System. This system uses the 2.4GHz spread spectrum communication system and eliminates the need for frequency crystals, allowing multiple models to operate in one area.

●The contents of this instruction manual are the same for both the EXPEC GT-I 2.4G Radio Control System (Basic Set), EXPEC GT-I 2.4G Radio Control System (Basic Set + ESC) and EXPEC GT-II 2.4G Radio Control System (for glow-engine R/C car). Read and understand the instructions before operating. Keep this manual as a reference to ensure safe operation of the R/C model.

2.4GHz R/C System Precautions

- Read and fully understand the instructions before operating the 2.4GHz R/C system.
- 2.4GHz frequency range is also used for microwave ovens, wireless networks, Bluetooth devices, the ISM (industrial, scientific, and medical) radio bands, and amateur radios, and interference may affect operation of the model. Operate the model while noting local frequency conditions.
- At R/C driving facilities, avoid using devices that may affect the operation of the R/C system. Also, follow the facility manager's instructions.
- Avoid using more than 15 sets of 2.4GHz R/C systems in your driving area at the same time.
- Do not drive your model to areas where it does not have direct line of sight with the transmitter as the radio signal may be blocked, affecting operation or causing loss of control.
- Do not remove the label of registered certification on the transmitter. Operation of the transmitter without this label is not permitted under Japanese law.

2.4GHz Transmitter Precautions

- Transmitter antenna has directionality. (Refer to page 9.)
- Do not grasp the built-in antenna section during operation or attach electro-conductive plates or stickers on it.
- ★This will weaken radio signal and reduce the effective range.
- Noise from other 2.4GHz systems may cause interference. Stop using if this occurs during function testing or while operating the model.

2.4GHz Receiver Precautions

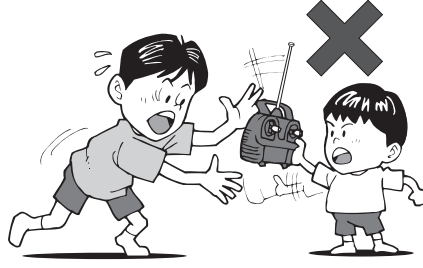
- Set the antenna to point vertically up and away from the ground and keep it away from metal objects which may cause interference.
- Put the antenna cable into antenna pipe for protection, ensuring that the tip of the cable does not protrude from the pipe.
- Do not bend, shorten, or cut the receiver antenna.
- Install the receiver where vibration is the least prevalent and away from sources of electrical and mechanical noise.
- Avoid strong shocks or vibration. Attach the receiver with thick double-sided tape to dampen vibration.
- Do not forcibly pull the coaxial cable as it will damage the internal circuit of the receiver.

★To avoid serious personal injury and/or property damage, observe the following points when operating the R/C model. The ⚠ symbol denotes important safety precautions. Make sure to observe them.

- Do not remove the label of registered certification on the transmitter. Operation of the transmitter without this label is not permitted under Japanese law.
- Use 6.0V battery or ESC with BEC to provide power to the TRU-07 receiver.
- ★Do not use manganese batteries as the receiver's power source.
- ★Do not use ESC without BEC as it will lead to damage of the receiver. (TEU-101BK and TEU-104BK are not compatible.)
- Do not use this product for purposes other than operating R/C models.
- When this product is exported from the country of manufacture, its use must be approved by the laws governing the destination country. Use of this product for purposes other than R/C models may be restricted by Export and Trade Control Regulations, and an application for export approval must be submitted.



●Read and understand the instructions before operating the model.

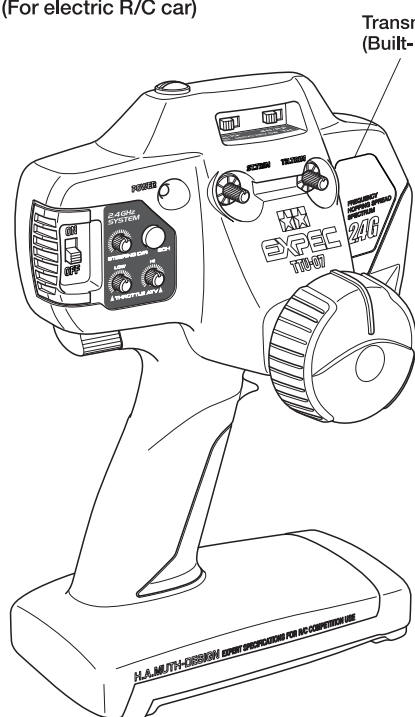


●Keep out of reach of small children.

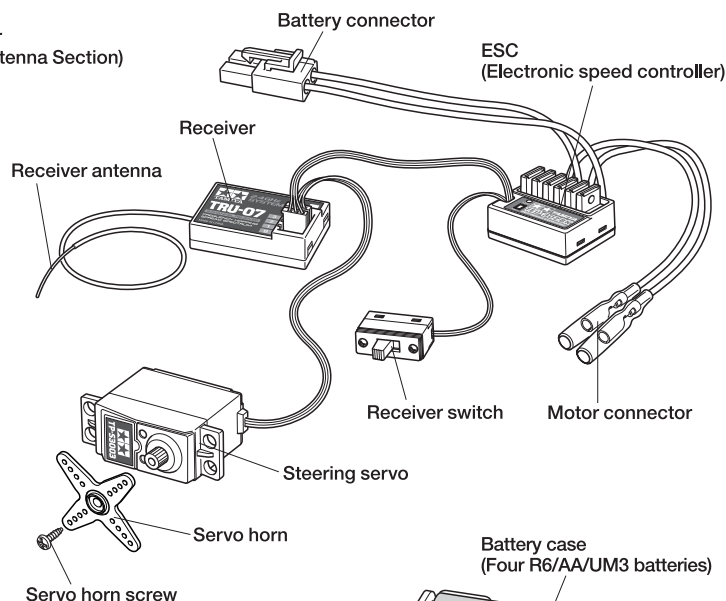


●Do not dismantle or modify transmitter or receiver.

《EXPEC GT-I 2.4G》
(For electric R/C car)



Transmitter
(Built-In Antenna Section)



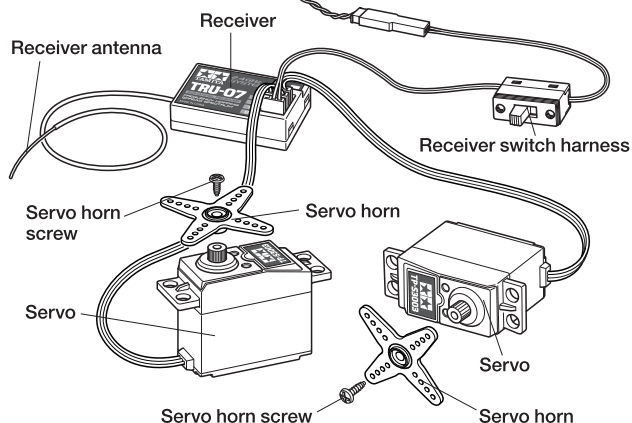
《EXPEC GT-II 2.4G》
(For glow-engine R/C car)

《Set contents》

Refer to the chart below for the contents of each set.

EXPEC GT 2.4G	GT-I	GT-II
Transmitter	●	●
Receiver	●	●
Servo	● (1 pc.)	● (2 pcs.)
ESC	●	
Screwdriver	●	●
Battery case		●
Receiver switch harness		●
Servo parts bag		● (Eyelet: 4 pcs. Grommet: 8 pcs.)

※Basic Set does not include an ESC.



Caution!

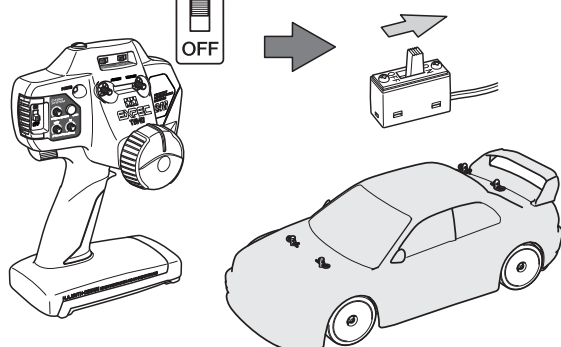
《How to turn on transmitter and receiver》

1. ON



2. ON

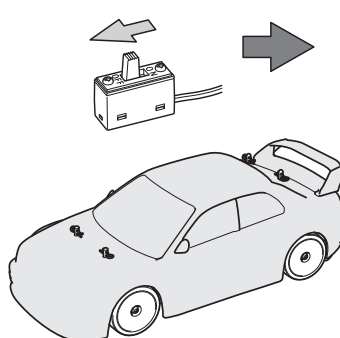
Receiver switch



《How to turn off transmitter and receiver》

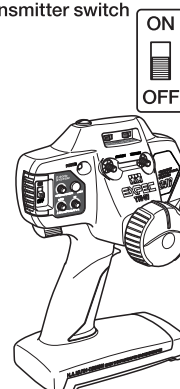
1. OFF

Receiver switch



2. OFF

Transmitter switch



Transmitter Part Names

● Battery Indicator

Switch on the transmitter to activate the battery indicator. The indicator flashes or does not light up if the battery voltage is low. If indicator does not turn on even after installing new batteries, check polarity or contact with terminals.

● Transmitter Switch

Slide the switch up to turn the transmitter on and slide down again to turn off.

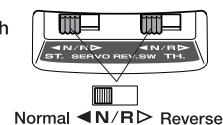
● Steering Dual Rate Trim

● Throttle ATV Trim (Forward)

● Throttle ATV Trim (Reverse)

● Steering trim

● Reverse switch



★ Direction of minimum signal strength

● Built-In Antenna Section

Do not point the antenna longitudinally toward the model. Maximum signal strength stems from the length of the antenna, not its tip. Hold the transmitter up vertically when operating.

● CH.3 Button

● Throttle trim

● Steering wheel

● Throttle trigger

● Transmitter battery box

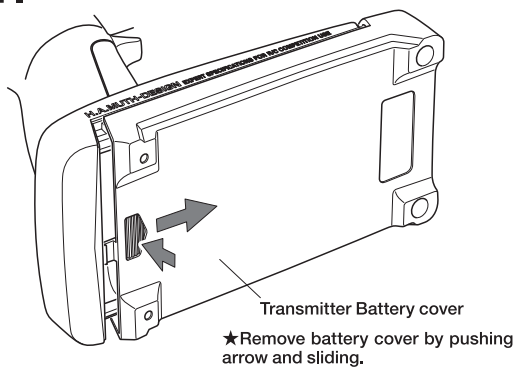
● Transmitter Battery cover

How to install transmitter batteries

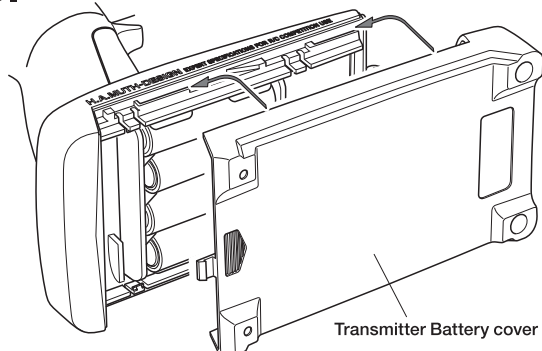


Use new batteries when replacing. If used batteries are mixed with new ones, model may lose control due to weak radio signal.

1. Open battery cover at the bottom of transmitter.



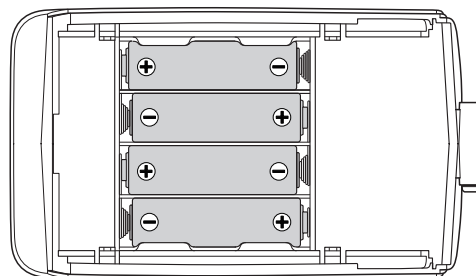
3. Attach battery cover.



Never use battery with voltage in excess of 1.5V per cell.

Four R6/AA/UM3 batteries

2. Install batteries. Follow the direction of batteries designated on the inside of battery box.

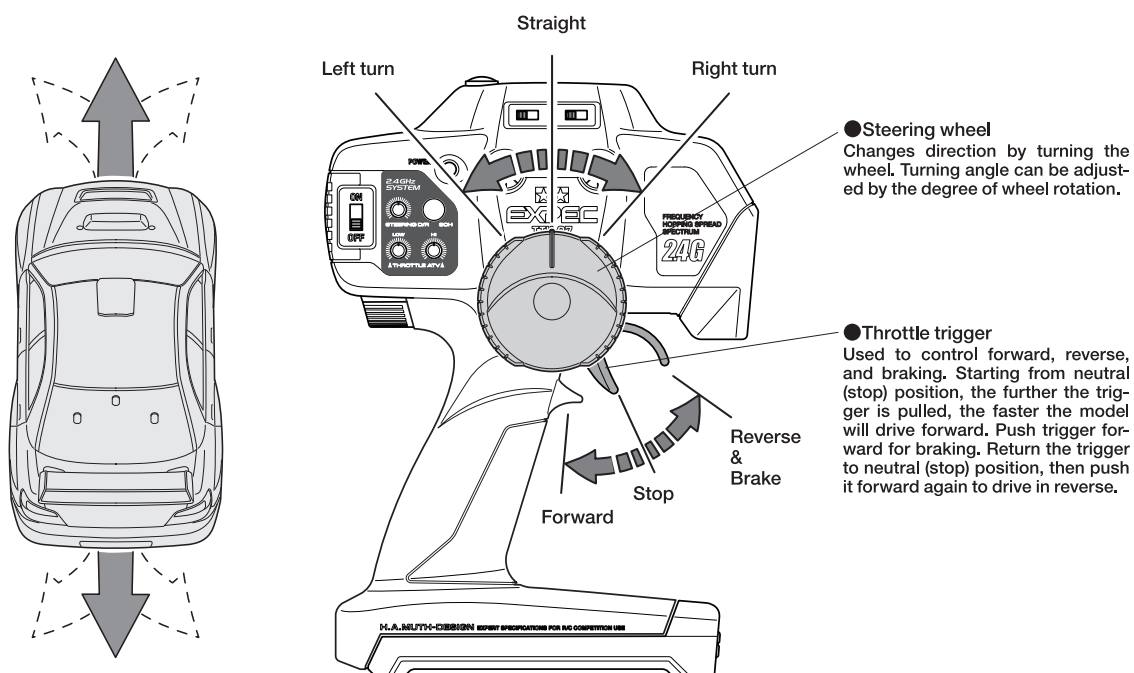


Improper polarity will damage the transmitter. Always replace worn batteries with new ones. Do not mix batteries of different ages or types.

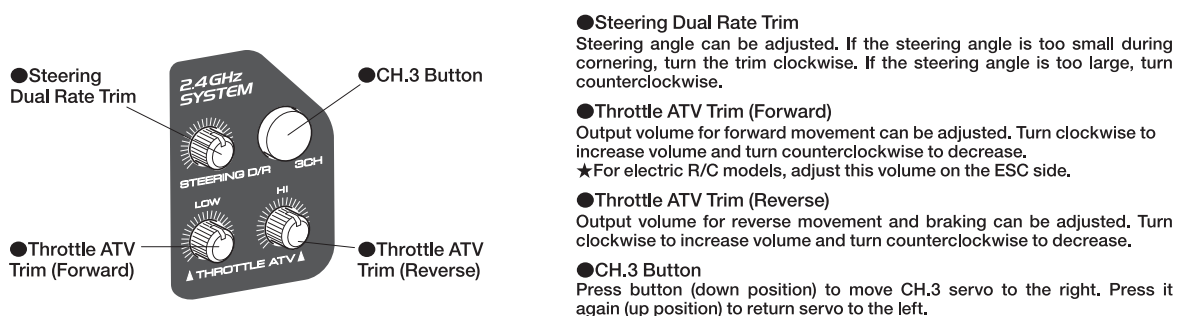
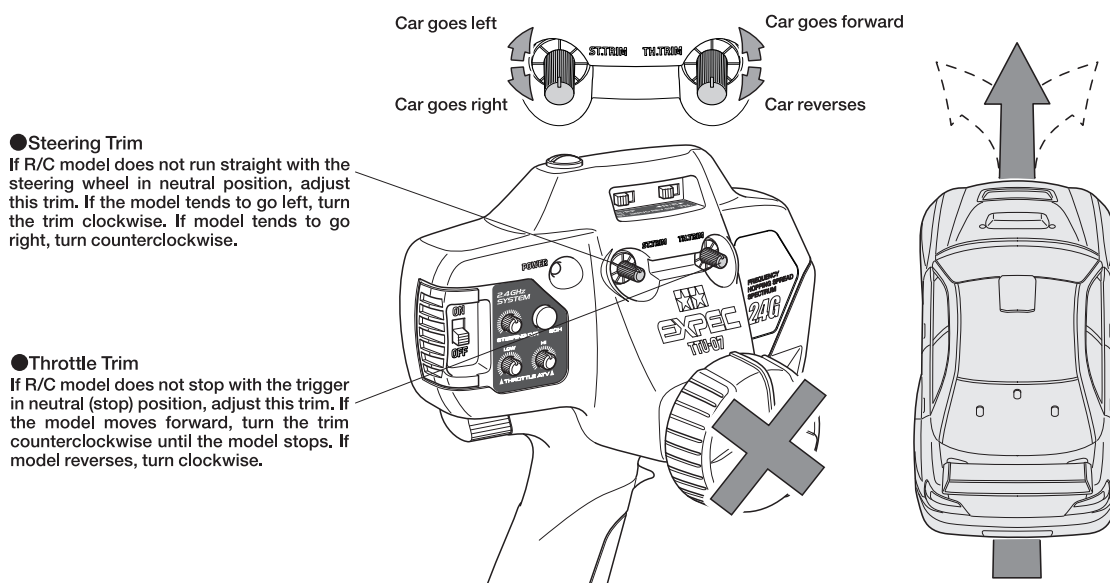


Remove batteries after use.

How to control R/C model



Trim Adjustment



Part Names

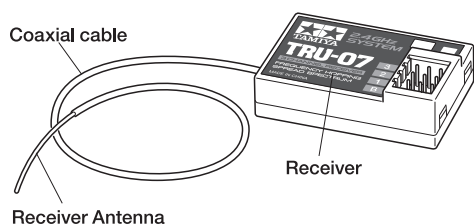
●Receiver

Receiver accepts signals from transmitter and converts them into pulses to operate the servo and ESC.

●Receiver Antenna

Receives the radio signals from transmitter.

⚠ Make sure to place receiver antenna away from battery, motor, and servo cables. Also, be careful not to allow contact with metal and carbon fiber parts.



⚠ Put the antenna cable into antenna pipe for protection, ensuring that the tip of the cable does not protrude from the pipe. Do not use metal or carbon fiber antenna pipes.

⚠ Do not cut, bend, or bundle the receiver antenna and coaxial cable as it will reduce the effective range.

●Link Switch

Use to perform pairing process.

●LED

Indicates receiver status. Turns on when receiving signals and turns off when no signal is received.

	LED
Fail Safe Function On	High-speed flashing when switched on
Fail Safe Function Off	Off
↓	
ID code is not setup or paired.	Slow flashing
No signal received.	Off
Receiving signals.	On

★The LED indicates Fail Safe Function status, then receiver status.

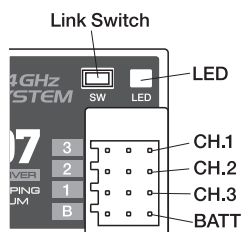
☆Connect steering servo's connector to CH.1.

☆Connect the connector from ESC to CH.2.

☆CH.3: Use for CH.3 function of your choice.

☆Connect receiver battery to BATT.

⚠ Use the ESC's BEC or a 6.0V battery as the TRU-07's power source.



●Servo

Transforms signals received from the receiver into mechanical movements.

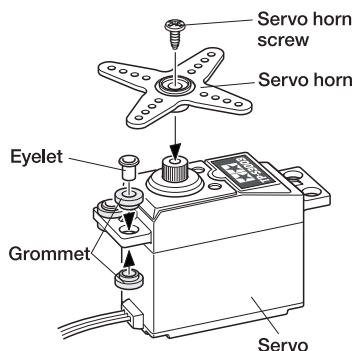
●Servo Horn

Transfers servo's movement into steering movement or throttle lever movement.

●Grommet/Eyelet

Absorbs shocks from chassis.

★Follow the instructions included with R/C car for attaching servo. Grommets are not attached to some R/C cars.



●ESC

ESC controls speed of forward/reverse driving, stopping, and braking.

●Receiver switch

Turns on/off receiver.

●Battery case

(Not included in GT-I system.)

Install batteries (alkaline, Ni-Cd, or Ni-NH batteries) as shown below.

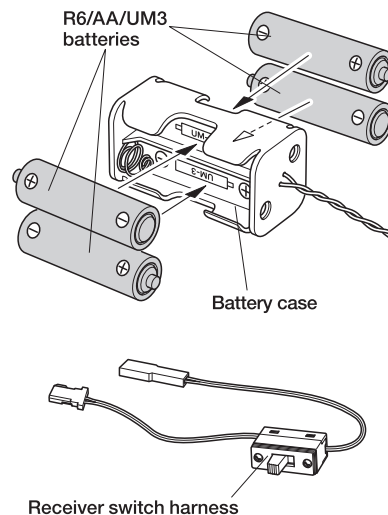
⚠ Do not use manganese batteries. Note polarity.

★Immediately replace with new batteries when the response of servo becomes slow. Using low batteries may cause loss of control, leading to serious accidents.

●Receiver switch harness

(Not included in GT-I system. Receiver switch is equipped with ESC.)

Harness connects receiver to battery case and acts as a receiver switch.



Pairing Transmitter & Receiver (Transmitter and receiver are factory-paired.)

A 2.4GHz transmitter has an individual ID code and once a receiver stores it, the code ensures that the receiver communicates with that transmitter only. This process is called "pairing." Fail Safe Function will also be set in this process.

- 1.Position transmitter and receiver within 1m of each other.
- 2.Switch on transmitter.
- 3.Switch on receiver.
- 4.Hold throttle trigger at the position at which you wish the throttle servo to move when the Fail Safe Function is activated. (Factory setting is neutral position.)

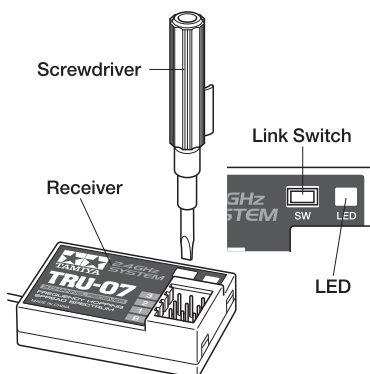
⚠ Do not set the throttle servo to forward position.

- 5.Press and hold Link Switch on receiver until it turns off.

- 6.When pairing is completed, the LED turns on. Switch off transmitter and receiver to complete. Switch on transmitter, then switch on receiver and

check operation.

⚠ Do not perform pairing when motor is connected or engine is started.



Fail Safe Function

(Effective for CH.2 only.)

This function moves the throttle servo to the preset position when the receiver cannot receive the transmitter's signal. When the transmitter signal is received again, this function is deactivated. (Factory setting is neutral position.)

⚠ Check the Fail Safe Function (if it is setup) before operating the model. When checking operation, use chassis stand so that tires are not in contact with the ground.

★Fail Safe Function will be set during the pairing procedure. Perform the procedure again to change the preset servo position.

Deactivate Fail Safe Function

Switch on receiver while pressing the Link Switch on the receiver.

★Perform the pairing procedure again to reactivate the function.

Operating Procedures

★Transmitter Setting

When checking operation, use chassis stand so that tires are not in contact with the ground. The model may start driving uncontrollably due to improper adjustment if it is put on the ground.

1. Install transmitter and receiver batteries.
 2. Switch on transmitter, then switch on receiver.
 3. Inspect operation with transmitter. Adjust trims if needed.
 4. Operate the R/C model.
 5. When shutting down your model, switch off receiver, then switch off transmitter.
 6. Remove all batteries from the transmitter and the model after each use.
- ★Always follow these operating procedures.

Cautions for Operating R/C Models

●Interference may affect the operation of the model.

A 2.4GHz radio control system eliminates the need for frequency crystals but radio interference may occur according to local conditions. In that case, immediately stop operation and determine the cause.

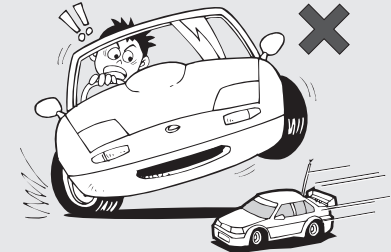
- Never run R/C models in crowded areas or near small children.
- Never run R/C models on the street.
- Attach receiver and ESC with double-sided tape to absorb shocks.
- If R/C system gets wet, dry it immediately to prevent malfunction.

Cautions for Storing

Do not store this R/C system in the following environments to prevent deformation and damage.

- Where it is extremely hot (over +40°C) or cold (below -10°C).

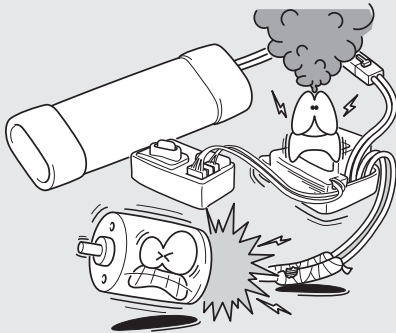
- Where the system will be exposed to direct sunlight.
- Where the humidity is high.
- Where vibration is prevalent.
- Where dust is prevalent.
- Where the system will be exposed to steam and heat.
- Where it can be within reach of small children.



Cautions for ESC

●Do not short circuit

Make sure that all cables are completely insulated. Use vinyl tape for insulation.

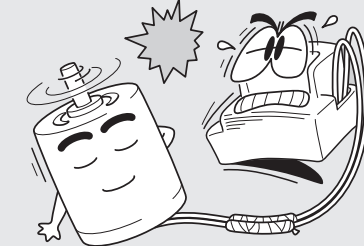


●Connect cables securely

Connectors can only be joined together in one way. If they don't fit perfectly together, do not force them. ESC may become damaged.

●Do not modify

Do not use undesignated battery and motor. FET speed controller may be damaged. Cutting cables or antenna, or dismantling connector or servo may cause short circuit or breakage.

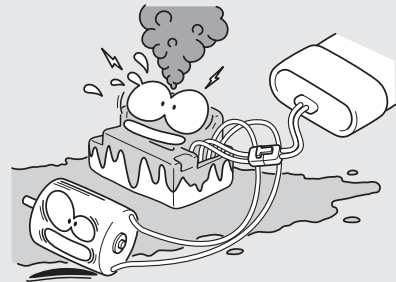


●Cautions when handling

ESC, servo, and transmitter are precision devices. Keep away from water and humidity. Take extra care not to drop or crush when handling.

●R/C model will stop when heat protection device in ESC activates
When running the model at low speeds

for long periods, heat protection device stops car to protect speed control amplifier from heat.



●In case heat protection device activates

If the model stops suddenly, heat protection device may be activated. Turn off receiver switch immediately and determine the cause. If the cause is due to heat protection device, the model will resume running after about a 15-minute-break.

《EXPEC GT 2.4G Specifications》

Transmitter : TTU-07
Type : Wheel Type 2-Channel
Frequency Range : 2.4GHz
Power Supply : 6.0V (R6/AA/UM3 Battery x4)
Current Consumption : Less than 100mA
Antenna : 1/2λ Dipole Antenna (Built-In)

Receiver : TRU-07
Frequency Range : 2.4GHz
Power Supply : 4.8V-6.0V
Dimensions : 26 x 39 x 10mm (excl. protrusions)
Weight : 8g

ESC : Refer to the separate instructions.

Servo : TP-S3003
Power Supply : 4.8V-6.0V
Current Consumption : 8mA (Using 6.0V Battery)
Output Torque : 4.1kg-cm (Using 6.0V Battery)
Operating Speed : 0.19sec./60° (Using 6.0V Battery)
Dimensions : 40.4 x 19.8 x 36mm
Weight : 37.2g

★Specifications are subject to change without notice.

Contact your local Tamiya dealer for any questions regarding this R/C system including parts, defects and repairs.

★Send the product with detailed description of the malfunction to Tamiya Customer Service for repair request (Effective in Japan only).

www.tamiya.com

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