Thank you for purchasing

Before using your read this manual carefully and use your R/C set safely

After reading this manual, store it in a safe place.

APPLICATION, EXAPORT, AND RECONSTRUCTION

1. Use this product in models only.

2. Exportation precautions
   (1)When this product is exported, its use is to be approved bythe Radio Law of the country of destination.
   (2)Use of this product with other than models may be restricted by Export and Trade Control Regulations. An application for export approval must be submitted.

3. Modification, adjustment, and replacement of parts
   GS is not responsible for unauthorized modification, adjustment, and replacement of parts of this product.

User Information

This device complies with part 15 of 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.

The FCC require the user to be notified that any changes or modification made to this device that are not expressly approved by **General Silicones Co., Ltd.** may avoid the user's authority to operate the equipment.

To comply with FCC RF exposure requirement, this device and its antenna must no be co-located or operating in conjunction with any other antenna or transmitter.

β-T1

Safety Precautions

For your safety as that of others. Please read this manual thoroughiy prior to installation and operation of your digital proportional R/C system.

Definition Of Symbols

The following defines the symbols used in this manual.

Explanation Of Symbols

⚠ Warning

Indicates a procedure that could result in serious injury or death to the user or other persons if ignored and not performed properly.

⚠ Caution

Indicates a procedure that may result in serious injury to the user or other persons, as well as physical damage. If ignoerd and not performed properly.

Explanation Of Graphic Symbols

⚠ Indicates an operation that prompts a warning (including Caution).

⃠ Indicates an operation that must not be performed.

❗ Indicates an operation that always must be performed.

Running (Sailling) Preparations Safety Precautions

⚠ Warning

(When using a Ni-cad battery to power your system)

charging

❗ when using a Ni-cad battery to power your system, always charge and the battery voltage prior to operation.

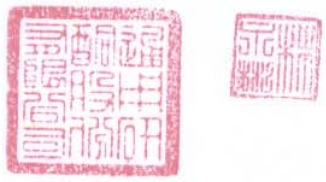
Should the battery discharge below the minimum voltage level, control will be lost.

⚠ Caution

(When using a Ni-cad battery to power your system)

❗ When the charger is not in use, disconnect from the outlet.

To prevent accidents, overheating and short circuits.



Running (Sailing) Safety Precautions

⚠ Warning

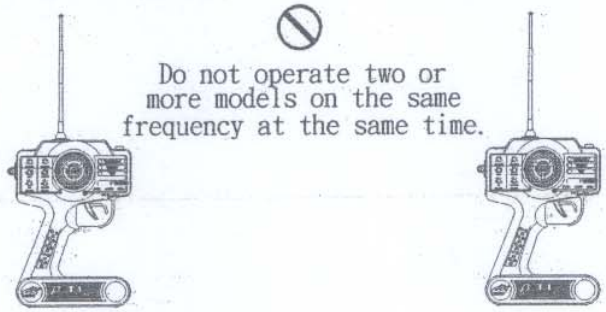
Conduct Testsg

Prior to operation always preform a range test.
Even one abnormality in the R/C system may cause loss of control.
(Range Test Procedure)
Have a friend hold the model, or place on a stand where the wheels or prop can not come in contact with any object. Collapse the transmitter antenna and operate from a distance of about 10 yards. Be sure to check the movement of each servo to make sure they follow the movement of the steering wheel and throttle trigger.
If the servos do not follow the commands from the transmitter or any type of interference is detected, Do Not operate the model.

Fully extend the transmitter antenna.
If the transmitter antenna is not fully extended range will be reduced and control may be lost.

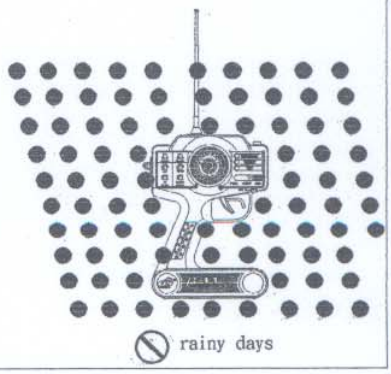
Prohibited

Do not operate two or more models on the same frequency at the same time.
Operation of two or more models on the same frequency at the same time will cause interference and loss of control of both models.
AM, FM and PCM are different methods of modulation. Nonetheless the same frequency can not be used at the same point in time, regardless of the signal format.



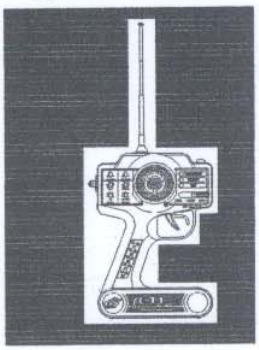
Do not operate outdoors on rainy days

Never operate in the rain or run through puddles.
The transmitter, receiver, batteries and most servos, and speed controls are not waterproof. Contact with any type of moisture or immersion in water or snow will cause damage along with possible loss of control. Should any type of moisture enter any component of the system immediately stop using the R/C system and return to our service center for inspection.



Prohibited

during the night



Do not operate when visibility is limited.
Should you loss sight of the model a collision or other dangerous situation may occur.

Prohibited

Do not operate near people or roads.
Do not operate near high tension power lines or communication broadcasting antennas.
Prior to the operation of any model be sure the area you plan to use is safe.
Be aware of all object that may be in the path of your model. Do not operate the model where people or any type of moveable object could stray in the path of your model. Control loss due to interference, component failure, loss of sight or low battery voltage could result in serious injury to yourself and others as well as damage to your mode.

Prohibited

Do not operate your R/C system within 1 km of another site where radio control activity may occur.
Interference from other R/C systems will cause loss of control.

Prohibited

Do not operate when you are tired, not feeling well or under the influence of alcohol or drugs.
Your judgement is impaired and could result in a dangerous situation that may cause serious injury to yourself and others.

Before you turn on the power switch on the transmitter, always check to see that the trigger is at the neutral position. Always turn the transmitter on first, then the receiver.
This step is very important always follow this procedure.
If this procedure is not followed, injury to yourself and others as well as loss of control could occur.

Adjustment Note

Make all adjustments to the radio control system with engine not running, or the electric motor disconnected.
If the engine is running or the motor is connected while adjustments are made the model may run out of control.

Remove the main battery source from electric powered models when they are not being used.
Should you accidently leave the receiver switch on the model run of control.

⚠ Caution

Do not touch

Do not touch the engine, motor, speed control or any part pf the model that will generate heat while running.
Touching hot parts will result in serious burns.

Storage And Disposal Safety Precautions

⚠ Warning

(When using a Ni-cad battery to power your system)

At the end of a days operation store the system with Ncad battery discharged. Be sure to recharge the system before it is used again.
You should fully discharge your systems batteries periodicity to prevent a condition called "memory". For example if you only make two run in a day or you regularly use a small amount of the batteries capacity, the memory effect can reduce the actual capacity even if the battery is charged for the recommended amount of time.

Prohibited

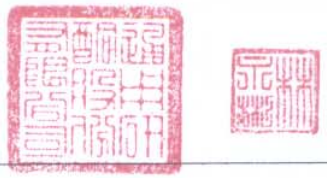
Do not throw a Ni-cad battery into a fire. Do not disassemble or attempt to repair a Ncad battery pack.
Overheating, damage and acid leakage may lead to burns, loss of eye sight as well as numerous other types of injuries. The electrolyte in Ni-cad batteries is a strong alkali. Should you get even the smallest amount of the electrolyte in you eyes, Do not rub, wash immediately with water, seek medical attention at once. The electrolyte can cause blindness. If electrolyte comes in contact with your skin or clothes, wash with water immediately.

Prohibited

Do not store your R/C system where it will be exposed to the following conditions.

*Exposed to direct sunlight
*Extreme heat or coldness
*Where vibration is prevalent
*Where humidity is high
*Where dust is prevalent
*Where there is steam and condensation
*Where the system would be exposed to engine exhaust

Storing your R/C system under adverse conditions could cause deformation and numerous other problems with operation.



(When using a Ni-cad battery to power your system)

Caution

When disposing Ni-cad batteries, cover any exposed contacts with some type of insulation to prevent short circuit.

Improper disposal could cause fire.

*Special Note!

Some states require special handling when Ni-cad batteries are disposed. Contact the State Agency responsible for recycling hazardous waste for the procedures in your state.

Other Safety Precautions

⚠ Caution

When operating two or more models at the same time, have a third person act as a spotter. They will be in charge of safety and you should follow their instructions.

Beginners should receive instructions regarding safety and operation from an experienced modeler.

(When using a Ni-cad battery to power your system)

Prohibited

Do not short circuit the Ni-cad battery terminals.
Short circuiting the terminals will lead to sparks and overheating and could cause a fire and burns as well.

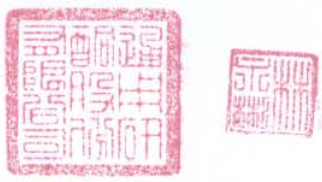
Before Operation

(1) a. Install the crystal of TX to the transmiter and the crystal of RX to the receiver.
The freguency of TX and RX must be the same.

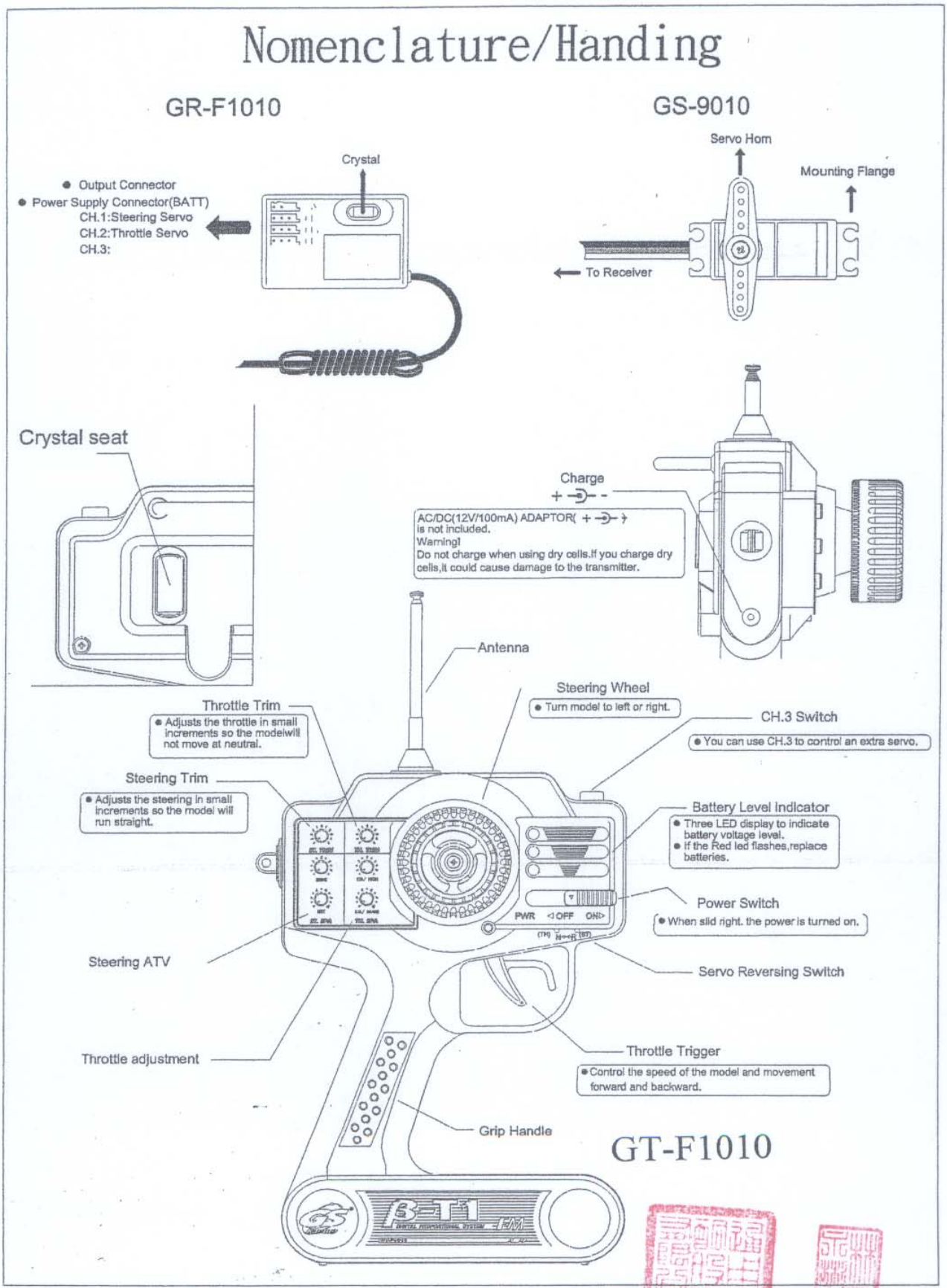
b. When turning on the power switch, be sare that the freguency band is availadle.
The models using the same freguency will run out of cantrol.

(2) Before driving, please check the power of transmitter and receiver.

(3) Always turn on the switch on the transmitter first, followed by the receiver. When turn off the switch, always turn off the receiver first, followed by the transmitter.



Nomenclature/Handing



Handling procedure For Batteries (8 AA Size Batteries)

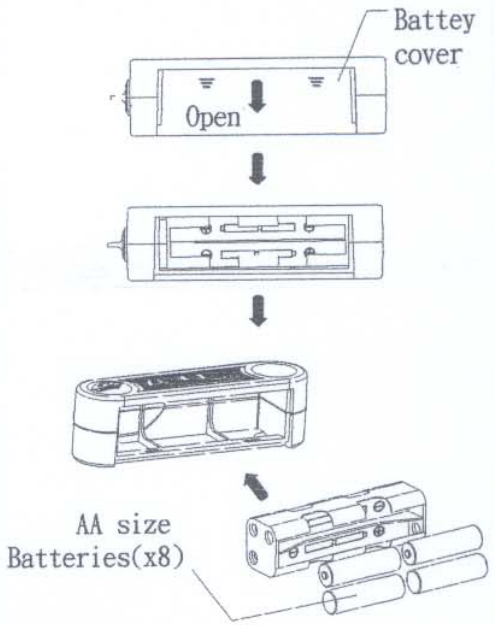
(Battery Replacement Method)

1. Remove the batteries from the transmitter by sliding the cover in the direction of the arrow in the figure.
2. Remove the used batteries.
3. Load the new AA size batteries. Pay very close attention to the polarity markings and reinsert accordingly.
4. Side the battery cover back onto the case.

(Check)

Turn the power switch on the transmitter to the ON position. Check to see if the three LEDs light.
If the LEDs fail to light, check the batteries for insufficient contact in the case or incorrect battery polarity.

Battery Replacement



(Battery Alarm Display)
When the Yellow battery level indicator(LED) yellow off and Red LED flashes, change the batteries immediately.

(Green:Off)

(Yellow:Off)

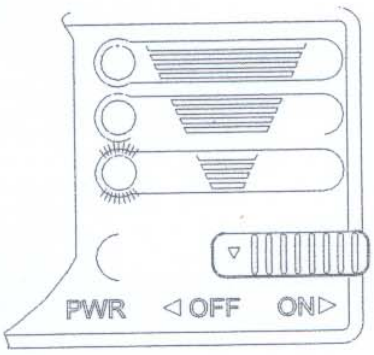
(Red:Flashing)

Caution

Always be sure you reinsert the batteries in the correct polartiy order.
if the batteries are loded incorrectl, the transmitter may be damaged.

When the transmitter will not be used for any short or long period of time always remove the batteries.
if the batteries do happen to leak, clean the battery case and contacts thoroughly. Make sure the contacts are free of corrosion.

(Battery Disposal)
Some states require special handling when any type of battery is disposed.
Contact the State Agency responsible for recyling hazardous waste for procedures in your area.



If three LEDs all light mean the battery is full.

If only red LED light, replace or recharge the battery.

12V~9.6V LED light green, yellow, red

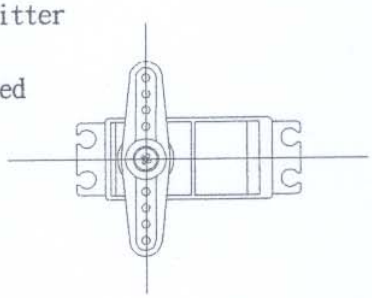
9.6V~8.6V LED light yellow, red

When under 8.6V If LED light red, mnst change battery don't continue use.

Digital Proportional Adjustment

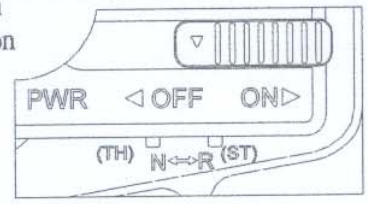
Serve Horn Installation Instructions

1. Connect the receiver, servos, and other components and then turn on the power switches to transmitter and receiver.
2. Be sure the Steering trim and Throttle trim on the transmitter are at their neutral position.
3. At this time install the servo horn in the manner described in the instruction manual provided with the model this system will be used in.



Reversing The Servo Operation SDirection

Should the servo operate in the opposite direction required for your application, reverse the rotation with the reversing switch.

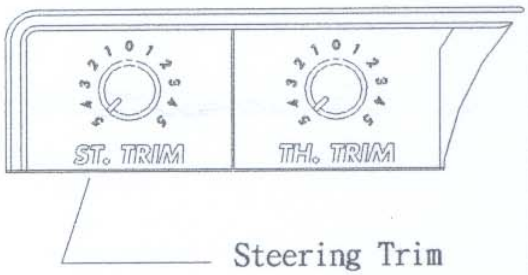


Throttle	Steering
N Side:Normal	N Side:Normal
R Side:Reverse	R Side:Reverse

Description Of Functions

Steering Trim

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



Steering Trim

Racers Tip

When you install a servo always check to be sure the servo is at its neutral position. Adjust the servo horn hole position and linkage so 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

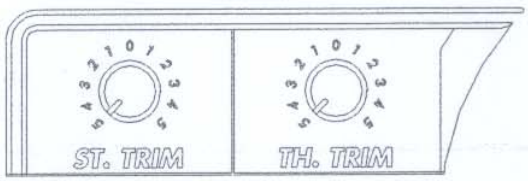
Changing the trim can effect the overall settings, when adjustments are made with the trims recheck your installation for maximum servo travel. (Steering ATV right side and left side)

When Trim usage is extreme

If it takes most of your trim movement to get a servo to the neutral position, reposition the servo horn or servo saver on the servo and inspect your linkage installation.

Throttle Trim

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



Throttle Trim

Racers Tip

On a gas powered model set the trim to neutral and adjust the linkage to the point where the carburetor is fully closed in accordance with the engine instruction manual.

Trim Operation and Travel

Trim adjustments will effect the overall servo travel, check the brake side (backward) movement when changes are made.

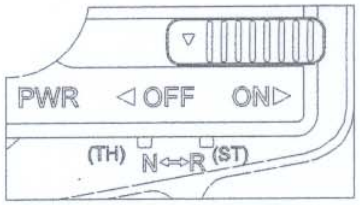
When trim movement is extreme

If you use most of the trim movement to get the servo to the neutral position , recenter the servo horn closer to the neutral position and inspect your throttle linkage.

Servo Reverse

This function reverses the rotation direction of the Steering and Throttle servos.

When the trim position deviates from the center, the deviation will be on the opposite side when the servo is reversed.



Throttle

N Side:Normal
R Side:Reverse

Steering

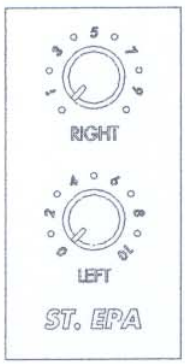
N Side:Normal
R Side:Reverse

Steering ATV

This function is used is used to adjust steering travel.

The right side travel and left side travel can be independently adjusted.

This function is used to compensate for any differenec in right or left turning radius or angles due to the characteristics of a particular model.



Right Side

0 side: Travel Minimum
10 side: Travel Maximum

Left Side

0 side: Travel Minimum
10 side: Travel Maximum

Warning

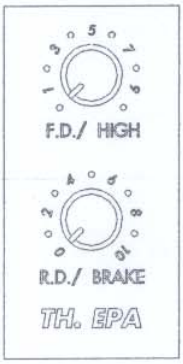
Operate each servo over its full stroke and check to see that the linkage does not bind or result in excessive force being applied to servo.

Excessive force applied to the servo by bindingor poor installation could lead to servo damage as well as loss of control.

Throttle adjustment

TH. EPA F.D./HIGH:Adjusting the throttle servo turning angle when the trigger is pulled fully.

TH. EPA R.D./BRAKE:Adjust the servo turning angle when moving the trigger fully to the brake direetion.



F.D./ HIGH

0 side: Travel Minimum
10 side: Travel Maximum

R.D./ BRAKE

0 side: Travel Minimum
10 side: Travel Maximum