

RST

Owner's Manual

ENGLISH

E-TACK



TAIPEI CYCLE
d&i awards 2025

by iF



Thank you for purchasing RST products.
Your bicycle will have optimal shock absorption.
Next, we will introduce the operation and usage of the E-TACK system.

2.4G RF quick connection system,series shock absorber and seat post

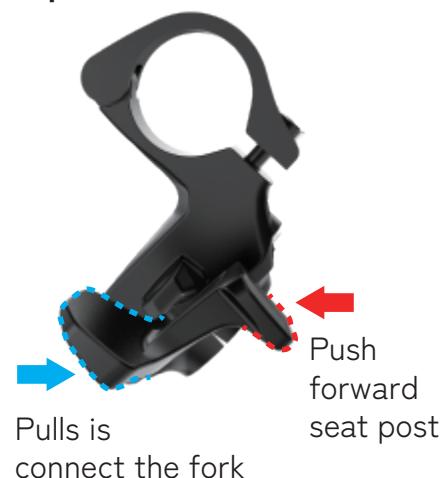
Installation instructions

Remote control

Instructions

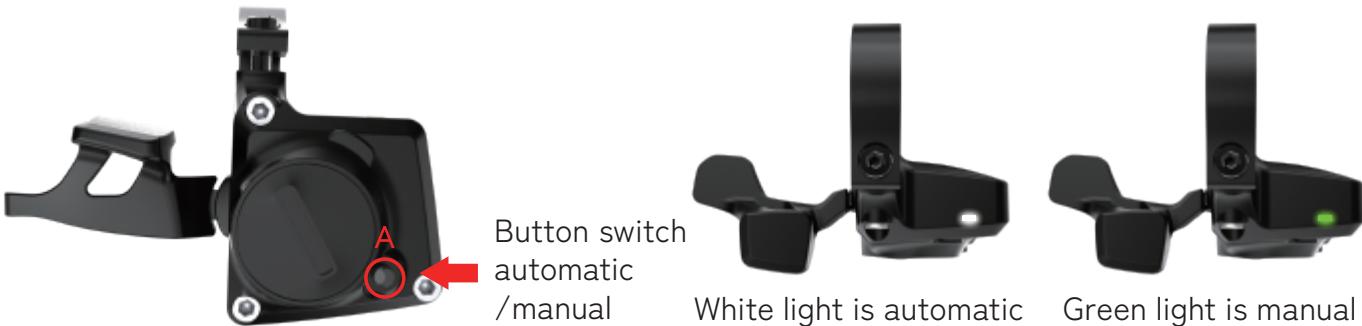
1. Linked Fork mode switching/Dropper height adjustment.
2. The remote control buttons can be switched between push forward and pull back modes around 0.3 SEC.
3. Factory setting: push forward when connected to the seat tube/pull back when connected to the front fork.

- **Warning ! For your safety, do not make any mode changes during the ride "unless necessary" to avoid accidents.**



Remote control indicator light description

- Switch between automatic and manual buttons from place A.
- In automatic mode, the road surface detection time is about 1 second.



Remote Control Battery

TOSHIBA CR2032 Lithium Battery

- **WARNING! Do not swallow the battery. Swallowing may cause serious injury or death. If swallowed, seek immediate medical attention.**
- **Do not put the battery in your mouth and keep it away from children and pets.**
- **Avoid short circuits, overheating, proximity to fire, or discharging into water, as this may cause explosion or leakage.**
- **Please recycle according to local regulations. Do not dispose of with general waste.**

CONGRATULATIONS on selecting an RST suspension fork.
You have chosen the best suspension components for your bicycle !
This RST fork is fully assembled and ready to be installed onto your bicycle.

CAUTION

Proper care and maintenance of your RST product is necessary for longevity and optimum performance.

Failing to perform routine maintenance will greatly decrease the performance of the product and may lead to premature deterioration or even failure of the product. Lack of maintenance may also jeopardize the safe operation of your fork and will void the warranty.

GENERAL WARNING

This manual contains important information about the safe operation and maintenance of your fork. Reading this manual entirely, and properly maintaining your bicycle and suspension fork is essential. To ensure that your RST fork performs properly, we recommend that you have your fork installed by a qualified bicycle mechanic. Prior to riding your bicycle, you should inspect your suspension fork to ensure that no damage has occurred during the course of riding.

Do not ride your bicycle if the fork shows any signs of bending, cracking, leaking, or if it is missing any of the original supplied components. Any fall from your bicycle can result in serious injury or even death. Following these instructions can help you reduce the risk of being injured. We recommend returning your suspension fork to your dealer or an authorized service center annually for a thorough inspection and service.

IMPORTANT

This is an off-road fork, and as such, does not come with proper reflectors for onroad use. Have your dealer or mechanic install proper reflectors to meet the Customer Product Safety Commission's (C.P.S.C.) requirements for bicycles if the fork is going to be used on public roads at any time.

CONSUMER SAFETY INFORMATION

1. Never remove or have the steerer tube or stanchions removed from the crown. The steerer tube and stanchions (inner legs) are press fit at the factory. Press fitting of the inner legs and steerer tubes has higher performance versus having clamped stanchions or steerer tubes, but they can NOT be pressed out and changed. Pressing them out will permanently damage the crown beyond repair and render it unsafe for any use.
2. Do NOT attempt to thread a thread-less steerer tube. Cutting threads will weaken the steerer tube and cause an unsafe condition. The only safe thing to do is to obtain the proper crown/ steerer from your dealer, contact RST USA warranty service center or RST Europe.
3. Any other alteration or modification to your fork should be considered unsafe and will void the warranty. Contact your dealer, RST USA warranty service center or RST Europe prior to modifying your fork in any way for safety information.
4. Do not use an RST fork if any parts are broken, bent, cracked, or you suspect may be damaged. Contact your dealer, RST USA warranty service center or RST Europe, if you have any question concerning the integrity or condition of your fork.
5. RST recommends that you inspect your fork before every ride for wear and damage. Please pay particular attention to the crown, stanchions, sliders, dropouts and brace for any sign of cracks, bending or damage.

WARRANTY INFORMATION

Any RST fork found, by the factory, to be defective in materials and/or workmanship within two years from the date of purchase will be repaired or replaced at the option of the manufacturer, free of charge, when received at the factory with proof of purchase, freight prepaid. This warranty does not cover any fork that has been subject to misuse or

abuse, including but not limited to, any breakage, bending, damage cause by crashes and/or assembly, improper maintenance, or other excessive, improper or abnormal conditions. This warranty does not cover paint damage. Any modifications or alterations made by the user will render the warranty null and void. This warranty is expressly in lieu of all other warranties, and any implied are limited in duration to the same duration as the expressed warranty herein. RST shall not be liable for any incidental or consequential damages. In the event that a product needs to be replaced and is discontinued or not available, RST reserves the right to replace the product with one of equal value, no credit or refund will be issued. This product is not intended for use in stunt or acrobatics riding, ramp jumping, or similar activities, the user assumes all risks of personal injury, product damage or failure, and any other losses which may arise under such use. If for any reason, warranty work

WARNING

The steerer tube and stanchions (inner legs) are a one-time precision press fit at the factory and can not be removed from the crown. Replacement of the entire crown/steerer assembly must be done to change steerer tube lengths or diameters. Attempting to remove and replace the steerer tube or stanchions will result in an unsafe condition and should never be done.

FORK INSTALLATION

1. Remove the old fork from your bike.
2. Measure the length of steerer tube to fit your bicycle head tube, make sure there is sufficient length to install the stem (refer to the stem manufacturer's instructions), you can use your old fork as guide for cutting the length of steerer tube.
3. Measure the length of steerer tube to fit your bicycle head tube, make sure there is sufficient length to install the stem (refer to the stem manufacturer's instructions), you can use your old fork as guide for cutting the length of steerer tube.
4. Install the headset crown race (as per manufacturer's instructions) firmly against the top of the fork crown.
5. Clean and lubricate the headset bearings and races.
6. Insert the steerer tube into the head tube of the frame.
7. Install the upper bearings, stem spacers, and stem.
8. Install the stem cap and bolt. Tighten the bolt to headset manufacturer's specifications.
9. Install the handlebars to desired height and torque stem pinch screws or stem clamping system to manufacturer's specifications. Adjust the headset until you feel no play and drag.
10. Install the front wheel into the dropout counter bore. The quick release must be tightened after it is properly seated into the dropout counter bores to manufacturer's specifications.
11. Make sure to check the tire clearance. To check tire clearance, remove the air pressure and/or spring stacks and compress the fork completely to make sure a minimum of 1/4" (6.4mm) of clearance exists between the top of the tire and the bottom of the crown.
12. Your new fork is designed to break-in during your first few rides (about 20 hour total riding time). Prior to break-in, you may notice your fork feels tight and slightly sluggish. Following the break-in period, your fork will feel much smoother and will react to bumps much better than when you first put it on your bike.

SAFETY MAINTENANCE

Before every ride, please perform the following inspection:

1. Ensure that quick release skewers and thru axles are properly adjusted and tight.
2. Wipe the stanchions and outer legs clean and check entire fork for any obvious damage.
3. Check the headset for proper adjustment.
4. Ensure that the front brake cable is properly routed and check brake adjustment.
5. Check top caps, brake posts and shaft bolt for proper torque.

Please pay particular attention to ensure that steerer and stanchion tubes are still parallel. (Bending of the fork forward or backward is a common trait of hard landings.) Whenever the performance of the fork is noticed to have diminished or it has reached a service interval (whichever occurs first), perform the following procedures :

PERFORMANCE MAINTENANCE

1. Disassemble fork and thoroughly clean grease and residue from each part.
2. Inspect all parts for damage such as cracks, abrasions, and normal wear. If any parts are found to be damaged or excessively worn in any way, replace them immediately. Stop using this product until the damaged or worn parts have been replaced. If all the parts are in usable condition, proceed to step 3.
3. Apply a liberal amount of approved grease to the upper and lower bushing, stanchion, valve assembly, and wipers. Fill the wiper pocket with a generous amount of grease. Do not use a lithium grease as it can cause damage to the bushing material and the seals.

Bushing replacement :

In the event that an RST fork is founded to have excessive play between the stanchion and outer leg, the bushings will need to be replaced.

All forks, that have been 5 years or more, should be inspected and serviced annually if they are going to remain in use.

IMPORTANT

Replacing bushing requires special tools to remove and install the bushings properly.

RST strongly recommends this work should be done by a qualified mechanic with the proper tools.

Improperly installed bushings are extremely dangerous and can result in serious and/or fatal injuries.

Suggested service intervals for all RST suspension forks			
Normal Conditions		Severe Conditions	
Short Sporadic Rides	Long Frequent Rides	Short Sporadic Rides	Long Frequent Rides
Every 6 months	Every 4 months	Every 4 months	Every 3 months

Normal wear and tear parts are identified as follows			
1	Dust seal	6	Remote lockout cable
2	Air sealing O-ring	7	Bushing
3	Rubber moving parts	8	Stanchion (upper tube)
4	Rear shock mounting hardand main seal	9	Pivot
5	Strippeds/bolt	10	Lubricant-grease

Suggested replacement/service intervals of wear and tear parts as follows			
Dust seal	6 months	Rear shock mounting	1 year
Air sealing O-ring	1 year	Remote lockout cable	1 year
Rubber moving parts	1 year	Lubricant--grease	6 months

Instructions for Use

1. Power On : Press the power button for 1 second to turn on the front fork.
2. Indicator Lights : The front fork indicator lights flash approximately every 2 seconds.
3. Sleep Mode : If the front fork remains inactive for more than 2 minutes, the system will automatically enter sleep mode.
4. Power Off : Shaking during transport may wake the front fork, causing insufficient battery power.
It is recommended to press and hold the power button on the front fork for 5 seconds until a purple light appears, then release the button to turn it off.
5. Wake Up the Front Fork : Press the power button for 1 second to turn on the front fork.
6. Indicator Lights : In automatic mode, a white light and a flashing mode indicator light (the two colors alternate) will illuminate.

Front fork indicator light description

Blue light = OPEN



Green light
= PEDAL COMPRESSION DAMPING



Orange light = LOCK OUT



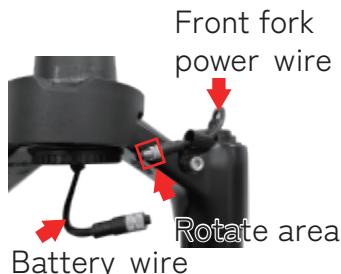
Weak current mode
= red light flashes

Front Fork Battery

- **WARNING! Do not swallow the battery. Swallowing may cause serious injury or death. If swallowed, seek immediate medical attention.**
- **Do not put the battery in your mouth and keep it away from children and pets.**
- **Avoid short circuits, overheating, proximity to fire, or discharging into water, as this may cause an explosion or leakage.**
- **Please recycle according to local regulations. Do not discard with general waste.**

Instructions

When using it for the first time, it is recommended that the battery be sufficient for more than 6 hours.



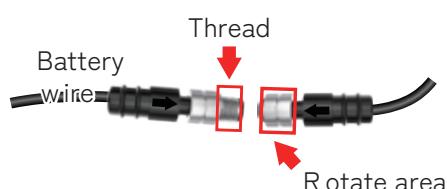
1 Unplug the front fork power wire and battery wire

First loosen the connection point of the cord, then unplug and separate the power cord.



2 Remove the battery

Use a special tool to release by clockwise and pull down to remove the battery.



3 Battery connection charging cable

After connecting to each other according to the arrows at the end of the line, twist the silver block 2-3 times.



4 Plug in the Type-C adapter and start charging.

Battery indicator light description



1. Button switch automatic/manual



2. The red light turns off when fully charged.



3. The red light flashes when overcharging, please unplug the power cord.



Flashing No light

Thank you for purchasing a new RST Height Adjustable seatpost. Your new seatpost is warranted for a period of two years from the date of purchase. The warranty is expressly limited to the repair or replacement of the defective part and is the sole remedy of the warranty. The warranty applies only to the original owner and is not transferrable. Proof of purchase is required to validate warranty eligibility. The warranty does not cover normal wear and tear, routine maintenance, improper installation or improper use of the seatpost. Modification of the seatpost in any manner shall void the warranty. RST shall not be responsible for incidental or individual costs incurred by the warranty service provider that are not covered by this warranty. The user assumes the risk of any personal injury or property damage, including damage to the seatpost, and any other losses, if the seatpost is modified or improperly used at any time. This warranty gives the consumer specific legal rights and those rights vary from state to state. This warranty does not affect the statutory rights of the consumer.

ATTENTION

This is a high performance product. It will give you reliable service if it is installed properly and regularly maintained by an authorized RST Service Center. Please read through these instructions fully and follow them carefully before you install your new seatpost.

NOTE: It is normal for some models of RST dropper to extend when pulled. This may occur when hanging the bicycle by the saddle but does not damage the dropper. When the bike is no longer hung by the saddle, it will return to the rider-prescribed ride height.

WARNING

RST Height Adjustable seatposts must be regularly maintained by an a qualified service technician. If you need assistance locating a qualified service technician, Service Center locations can be found at www.rstsuspension.com Do not disassemble your seatpost. Disassembly could cause damage and severe personal injury as some of the contents are under pressure. Failure to follow these warnings and instructions will immediately void your warranty.

Please be sure your new RST seatpost is designed to fit in your frame. All RST seatposts are designed to fit either 27.2mm, 30.9mm, 31.6mm or 34.9mm seat tube inner diameters only. Improper fit may cause slippage, binding, faulty performance, injury and may result in void of warranty.

- RST Suspension DOES NOT recommend modification or alteration of your frame in any way. Doing so may void your frame or bicycle' s warranty and may result in frame failure which could lead to injury or death.
- Make sure your frame is clean and free of debris, grease and the inside of your seat tube is smooth and free of any object that may score the seatpost.
- Apply grease to all seatpost bolt threads.
Alloy Models: For models using an alloy mast in alloy bike frames, apply friction or anti-seize compound to the inside of the frame' s seat tube and inserted surface of the seatpost. Do not use grease.
- Carbon Models: For models using an carbon mast or alloy mast in a carbon frame, always install in a clean dry frame and always use fiber prep or suitable compound. Always use the torque wrench when tightening the seatpost binder bolt. DO NOT EXCEED 5n-m.

BEFORE EACH RIDE

Before each ride, check that the seatpost is secure in the frame and that all clamping bolts are tightened to their specified torque values. Make sure that your seatpost does not show sign of excessive wear and is not leaking. Check that the seatpost functions properly. Make sure that the maximum raised position of the seatpost is not too high for the rider to properly maintain control of the bicycle.

PERIODIC MAINTENANCE

Your RST seatpost requires periodic service to maintain consistent function. Please see your local dealer to have this service performed.

Routine maintenance should be done at regular intervals. Interval duration will depend on frequency of use and conditions. The seatpost should be cleaned and lubricated at least once every 6 months. Wet or severely dusty conditions will require more frequent maintenance. If high pressure water is used to wash the bicycle, more frequent maintenance is recommended due to the increased chance of water entering the system. If degradation of performance occurs, perform maintenance as soon as possible.

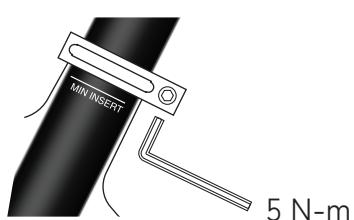
For more information, please contact your local Service Center. Service Center contact information can be found at www.rstsuspension.com



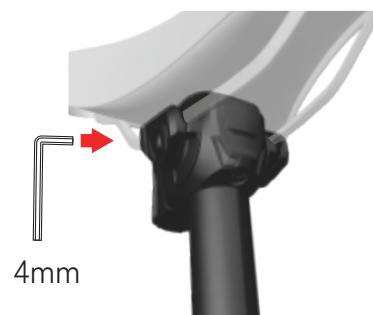
MINIMUM INSERTION DISTANCE

All seatpost models must be inserted into the bicycle's seat tube to cover the minimum insertion line indicated on the seatpost.

- Insufficient insertion of the seatpost into the bicycle frame's seat tube could result in damage to the seat post and/or bicycle and may result in a loss of control of the bicycle which may lead to serious injury or death.**



Do not over torque your frame's seat collar as this may inhibit proper function of your seatpost.



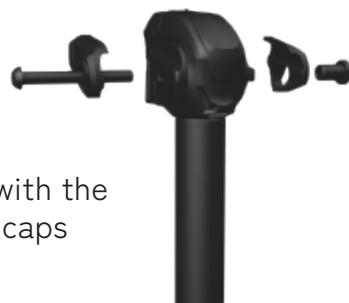
	TRAVEL			
MODEL	125MM	150MM	170MM	200MM
ELEV8 E	150 PSI	150 PSI	170 PSI	170 PSI

- When storing your bicycle for extended periods, it is recommended to fully extend the seat post to its topped out position. This will extend the life of the seals and also help to maintain consistent pressure in your post.**

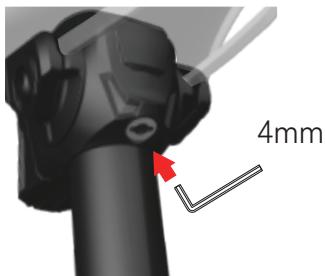
Loosen the single clamp bolt with a 4mm hex wrench

Install the saddle and left and right saddle retainer caps to hold the saddle rails.

Insert the though bolt and thread back in but do not full tighten at this time.



Slide the through bolt out along with the left and right side saddle retainer caps



Use a flat head screwdriver to loosen the outer cap for the saddle angle adjustment screw.
Use 3mm hex wrench on inner saddle angle adjustment screw to make fine adjustments to the saddle angle.
Tighten the outer cap.

Instructions for Use

1. Power On : Press and hold the power button until the green light appears to complete powering on.
2. Pairing :
 - I. Please download the code provided by the DFU app & RST.
 - II. Press and hold the power button on the socket until the remote control shows a blue light, then release.
 - III. Open the DFU app → Select → Select Start → Select Connect to DFU.
 - IV. Keep the remote control within 3 cm of the socket, and press and hold the thumb lever until the remote control displays a blue light, indicating successful pairing. (During pairing, please keep away from environments where Bluetooth may interfere.)
3. Connection Confirmation : Wait one minute before attempting to confirm the connection. Press and hold the power button for less than 5 seconds while holding the connector tube. If the connection fails, the connector tube will not respond. In this case, please turn off the power and restart the device, then try pairing again.
4. Power Off : Press and hold the power button until the red light appears, then release to power off.
5. Clear Pairing :
 - I. Open the remote control battery cover and keep pressing and holding the clear button next to the batteries.
 - II. Simultaneously, press and hold the thumb lever on the remote control until the remote control displays a rapidly flashing blue light, indicating successful clearing.



Green light/OPEN



Red light/turn off.

Blue light/
Pairing modeA blue light
flashed rapidly**Battery Holder**

- **WARNING! Do not swallow the battery. Swallowing may cause serious injury or death. If swallowed, seek immediate medical attention.**
- **Do not put the battery in your mouth and keep it away from children and pets.**
- **Avoid short circuits, overheating, proximity to fire, or immersion in water, as this may cause explosion or leakage.**
- **Please recycle according to local regulations. Do not dispose of with general waste.**
- **Operating temperature must not be lower than (-10~50°C) or higher than 50°C.**
- **Using an incorrect battery model may cause a fire or explosion.**
- **Do not disassemble/impact/squeeze or throw into fire.**
- **Do not use if the battery is severely bulging.**
- **Do not store in high-temperature environments.**
- **Do not immerse the battery in water!**

To maximize battery longevity, it is recommended to remove the battery when not in use or in storage. Always transport the LEV Circuit with the battery blank that included with the unit. Charge your battery for a minimum of 4 hours the first time. The red LED indicator will change to green when charging is complete. Please use a USB Type-C cable to power your charging cradle.



- **The working temperature should not lower than (-10~50° C) Celsius or above 50° Celsius**
- **IP rating: IP67**
- **There is a risk of fire or explosion if an incorrect type replaces the battery.**

WARNING

Keep out of reach of children. This product contains a button battery. Swallowing the battery can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately if the battery is swallowed.

Rage Circuit / NCC statement

According to NCC LP0002 Low Power Radio Frequency Equipment Technical Specification, Chapter 3.8.2: Without approval, companies, businesses, or users may not arbitrarily change the frequency, increase the power, or alter the original design characteristics and functions of low power radio frequency equipment that has obtained certification.

The use of low power radio frequency equipment must not affect flight safety or interfere with legitimate communications; if interference is detected, it should be immediately discontinued and the situation rectified until interference is eliminated before continued use.

The aforementioned legitimate communications refer to radio communications operating in accordance with the Telecommunications Management Act.

15.21

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

E-Tack is primarily composed of sensors, a wireless IC, a motor control IC, and a power management IC. The sensors detect vibrations in the front fork and convert these physical signals into electrical signals that are transmitted to the motor control IC, which drives a micro-motor inside the fork to adjust the damping oil pressure and change the fork's stiffness. The wireless IC is responsible for communicating with the vehicle's main control system, allowing riders to switch riding modes. The power management IC provides stable power supply to ensure reliable operation of the entire system. Through the coordination of these components, E-Tack can automatically sense road conditions and adjust suspension, providing a more comfortable and stable riding experience.

The system is powered by an external 18650 battery pack (3.6V/3300mAh). The battery pack uses a built-in boost circuit to increase the voltage to 5.3V to drive the micro-motor. Additionally, the main PCB is equipped with a power management IC that steps down the voltage to 3.3V to supply power to other IC components, ensuring stable operation of the entire system.

- Module Name : BTSRT BLE
- Product Features :

Chip	Nordic nRF52832 SoC solution
Standard	Bluetooth v 5.0 Single mode / BLE
RAM	64K byte RAM
Internal Flash	512K byte
RF band	2.4~2.4835GHz ISM band
Modulation	GFSK
Sensitivity	>-92.5dBm
Antenna	PCB Antenna
Antenna Gain	-3.63 dBi
Power voltage	3.6V ~ 7V
Dimension	(phi) 23.4 mm

- Operating Conditions :

Voltage Range	3.6V ~ 7V
Operating Temperature Range	-10 °C ~ 85 °C
Storage Temperature Range	-20 °C ~ 85 °C
Relative Humidity (Operating)	≤90%
Relative Humidity (Storage)	≤90%

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions :

- this device may not cause harmful interference and
- this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission (FCC) Statement 15.105(b)

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. If this equipment does cause harmful interference to radio or television reception, which can be determined 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 on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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The use of low power radio frequency equipment must not affect flight safety or interfere with legitimate communications; if interference is detected, it should be immediately discontinued and the situation rectified until interference is eliminated before continued use.

Legitimate communications refer to radio communications operating in accordance with the Telecommunications Management Act.

Low power radio frequency equipment must tolerate interference from legitimate communications or industrial, scientific, and medical radiating electrical equipment.



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