

32MZ-WC

WORLD CHAMPION MODEL



S.BUS 2



FULL MANUAL

Futaba[®]

Digital Proportional R/C System

1M23Z10002



TABLE OF CONTENTS

INTRODUCTION	5	S.BUS2	25
PRECAUTIONS	7	Antenna instructions	25
Flying Precautions	7	Channel Modes	26
Battery and Charger Handling Precautions	8	Dual Rx Link System	26
microSD Card Handling Precautions . . .	9	How to change to Dual RX Link mode . . .	27
Storage and Disposal Precautions . . .	9	FASSTest12CH(Telemetry OFF) mode . . .	27
Other Precautions	9	How to Dual Rx Link	28
FEATURES	10	Telemetry for FASSTest12CH	28
CONTENTS	10	Receiver Switch ESW-1J	28
TRANSMITTER	11	Servo (Option)	28
Cautions on handling antenna	11	Toolbox	29
Rotating antenna	12	Safety precautions when you install receiver and servos	29
Angle adjustment of the antenna . . .	12	BASIC OPERATION	30
LED monitor	12	How to turn ON/OFF the power of the transmitter	30
Toggle switch	13	Quick start	30
Volume	14	Home screen	31
Back side switch	14	Sub-Display	32
Slide Lever	14	Link procedue (T32MZ-WC ↔ R7208SB) . . .	33
Digital trim	15	Model ID	34
Touch Panel	15	How to change the number of value . . .	35
HOME/EXIT & U.MENU/MON. Button . . .	16	How to activate the function	35
Stick Adjustment	17	How to return to home screen or go back one step	35
Battery exchange	20	Page of each setting screen	35
Battery Charging	22	Switch selection	36
microSD Card (sold separately)	23	Display of operation status	36
Connector for trainer function (TRAINER)	24	Home2 screen	37
S.BUS connector (S.I/F)	24	Panel lock	37
Audio plug (PHONE)	24	Registration of the user's name	38
Connector for battery charger (CHG) . . .	24	UPDATING	39
AdRCSS 900MHz/CRSF connector . . .	24	SPECIFICATIONS	40
RECEIVER	25		

Compatibility of FASSTest26CH with receivers 41

About FASSTest26CH S.BUS2 connect and servos 41

MODEL BASIC SETTING PROCEDURE 42

Airplane/glider basic setting procedure 42

Helicopter basic setting procedure 44

Servos connection by model type 48

SYSTEM MENU 53

Trainer 54

Display 57

Date and Time 58

User Name 59

Switch 60

H/W Setting 61

Sound Volume 64

Player 65

S.BUS Servo 66

DLPH-2 70

Receiver 71

Information 72

Unit System 73

Range check 74

LINKAGE MENU 75

Servo Monitor 76

Model Select 77

Model Type 78

Picture 80

Sound 81

System Type 83

Function 86

Sub-Trim 88

Sub-Trim → Balance 89

Servo Reverse 91

Fail Safe 92

End Point (ATV) 93

Throttle Cut 94

Idle Down 95

Swash Ring 96

Swash 97

Timer 99

Dial Monitor 101

Function Name 102

Telemetry 103

Telemetry data is displayed on the home 2 103

Audible telemetry information 104

A setup of each sensor display 105

Receiver Battery Display 105

Temperature Display 106

RPM Display 106

Altitude Display 107

Variometer melody function 107

Vario Melody Setting 108

GPS Display 109

Voltage Display 111

Current/Voltage/Capacity Display 112

Servo sensor Display 113

Airspeed sensor Display 114

ESC Display 115

Sensor 116

Sensor Name 121

Telemetry Setting 122

Warning 124

Data Reset 125

User Menu 126

Condition Hold 127

MODEL MENU (COMMON FUNCTIONS) 128

Condition Select 129

AFR (D/R) 131

Prog. Mixes 133

Sequencer 134

Fuel Mixture 140

MODEL MENU (AIRPLANE/GLIDER FUNCTIONS) 141

AIL Differential 143

Flap Setting 144

AIL to Camber FLP 145

AIL to Brake FLP 146

AIL to RUD 147

Airbrake to ELE 148

RUD to AIL 149

Camber Mix 150

ELE to Camber 151

Camber FLP to ELE 153

Butterfly 154

Trim Mix 1/2 156

Airbrake 158

Gyro 160

V-tail 161

Ailevator 162

Winglet 163

Motor 164

RUD to ELE 165

Snap Roll 166

Multi Engine 167

Acceleration 168

Gyro setting 169

Connection T32MZ-WC and GYA553 . 169

Gyro setting Home screen 171

Gyro setting Basic menu 169

Gyro setting Config 172

Gyro setting SBUS Basic menu 177

MODEL MENU (HELICOPTER) 178

PIT Curve/Pitch Trim 179

THR Curve/Throttle Hover trim 182

Acceleration Mixing 184

Throttle Hold 185

Swash Mixing 186

Throttle Mixing 187

PIT to Needle Mixing 188

PIT to RUD Mixing (Revolution Mixing) 189

Gyro Mixing 190

Governor Mixing 191

Throttle Limiter 192

Gyro Setting 193

Gyro Setting Table of Contents 193

COMMON OPERATIONS USED IN FUNCTION SETUP SCREEN 222

Operations related to flight conditions 222

Operations related to VR tuning 222

Operations related to servo speed . . . 223

Curve setting operation 224

Curve type selection 224

Setting by curve type 225

Linear curve adjustment 225

EXP1 curve adjustment 226

VTR curve adjustment 226

Line and spline curve adjustment . . . 227

Switch selection method 228

T18MZ (WC) → T32MZ-WC MODEL DATA CONVERSION 232

INTRODUCTION

Thank you for purchasing a Futaba 32MZ-WC digital proportional R/C system. In order for you to make the best use of your system and to fly safely, please read this manual carefully. If you have any difficulties while using your system, please consult the manual, our online Frequently Asked Questions (on the web pages referenced below), your hobby dealer.

Due to unforeseen changes in production procedures, the information contained in this manual is subject to change without notice.

<https://www.futabausa.com>

(<https://www.rc.futaba.co.jp>)

Application, Export, and Modification

1. This product is only designed for use with radio control models. Use of the product described in this instruction manual is limited to radio control models.
2. Exportation precautions:
 - (a) When this product is exported, it cannot be used where prohibited by the laws governing radio waves of the destination country.
 - (b) Use of this product with other than models may be restricted by Export and Trade Control Regulations.
3. Modification, adjustment, and replacement of parts: Futaba is not responsible for unauthorized modification, adjustment, or replacement of parts on this product.

Outside North America

Please contact the Futaba importer in your region of the world to assist you with any questions, problems or service needs. Please recognize that all information in this manual, and all support availability, is based upon the systems sold in North America only. Products purchased elsewhere may vary. Always contact your region's support center for assistance.

Compliance Information Statement (for U.S.A.)

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.
- (3) RF Radiation Exposure Statement (For T32MZ-WC)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF Radiation Exposure Statement (For R7208SB)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

The responsible party for the compliance of this device is:

Futaba Service Center

2681 Wall Triana Hwy Huntsville, AL 35824, U.S.A.

TEL 1-256-461-9399 or E-mail: contactus@futaba.com

CAUTION:

To assure continued FCC compliance:

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

Compliance Information Statement (for Canada)

This device complies with Industry Canada license-exempt RSS standard (s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

French: Cet appareil radio est conforme au CNR-247 d'Industrie Canada. L'utilisation de ce dispositif est autorisée seulement aux deux conditions suivantes : (1) il ne doit pas produire de brouillage, et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif. Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet émetteur ne doit pas être co-situé ou fonctionner conjointement avec une autre antenne ou émetteur.

Declaration of Conformity (for EU)

Hereby, Futaba Corporation declares that the radio equipment type is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

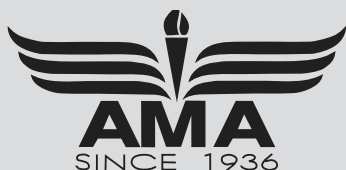
<https://www.rc.futaba.co.jp/english/dl/declarations.html>

<https://www.rc.futaba.co.jp/support/manual/>

Where to Fly

We recommend that you fly at a recognized model airplane flying field. You can find model clubs and fields by asking your nearest hobby dealer, or in the US by contacting the Academy of Model Aeronautics.

You can also contact the national Academy of Model Aeronautics (AMA), which has more than 2,500 chartered clubs across the country. Through any one of them, instructor training programs and insured newcomer training are available. Contact the AMA at the address or toll-free phone number below.



Academy of Model Aeronautics

5161 East Memorial Drive

Muncie, IN 47302

Tele. (800) 435-9262

Fax (765) 289-4248

or via the Internet at <http://www.modelaircraft.org>

! Always pay particular attention to the flying field's rules, as well as the presence and location of spectators, the wind direction, and any obstacles on the field. Be very careful flying in areas near power lines, tall buildings, or communication facilities as there may be radio interference in their vicinity.

PRECAUTIONS

Application, Export, and Modification Precautions.

1. This product is only designed for use with radio control models. Use of the product described in this instruction manual is limited to radio control models.
2. Export precautions:
 - a) When this product is exported, it cannot be used where prohibited by the laws governing radio waves of the destination country.
 - b) Use of this product with other than models may be restricted by Export and Trade Control Regulations.
3. Modification, adjustment, and parts replacement:

Futaba is not responsible for unauthorized modification, adjustment, or replacement of parts on this product.

 - No part of this manual may be reproduced in any form without prior permission.
 - The contents of this manual are subject to change without prior notice.
 - The contents of this manual should be complete, but if there are any unclear or missing parts please contact a Futaba Service Center.
 - Futaba is not responsible for the use of this product by the customer.
 - Company and product names in this manual are trademarks or registered trademarks of the respective company.

For safe use

Please observe the following precautions to ensure safe use of this product at all times.

Meaning of Special Markings:

The parts of this manual indicated by the following marks require special attention from the standpoint of safety.

- ⚠ DANGER** - Procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.
- ⚠ WARNING** - Procedures which may lead to a dangerous condition or cause death or serious injury to the user if not carried out properly, or procedures where the probability of superficial injury or physical damage is high.
- ⚠ CAUTION** - Procedures where the possibility of serious injury to the user is small, but there is a danger of injury, or physical damage, if not carried out properly.

⊘ = Prohibited ⓘ = Mandatory

WARNING: Always keep electrical components away from small children.

Flying Precautions

⚠ WARNING

⊘ Never grasp the transmitter antenna while flying.

- The transmitter output may drop drastically.

ⓘ Always make sure that all transmitter stick movements operate all servos properly in the model prior to flight. Also, make sure that all switches, etc. function properly as well. If there are any difficulties, do not use the system until all inputs are functioning properly.

⊘ Never fly in range check mode.

- In the dedicated range test range check mode, the transmitter output range is reduced and may cause a crash.

⊘ While operating, never touch the transmitter with, or bring the transmitter near, another transmitter, a cellphone, or other wireless devices.

- Doing so may cause erroneous operation.

⊘ Do not point the antenna directly toward the aircraft during flight.

- The antenna is directional and the transmitter output is weakest. (The strength of the radio waves is greatest from the sides of the antenna.)

⊘ Never fly on a rainy day, when the wind is strong, or at night.

- Water could lead to failure or improper functionality and poor control of the aircraft which could lead to a crash.

⊘ Never turn the power switch off during flight or while the engine or motor is running.

- Operation will become impossible and the aircraft will crash. Even if the power switch is turned on, operation will not begin until transmitter and receiver internal processing is complete.

⊘ Do not start the engine or motor while wearing the neck strap.

- The neck strap may become entangled with the rotating propeller, rotor, etc. and cause a serious injury.

⊘ Do not fly when you are physically impaired as it could pose a safety hazard to yourself or others.

⊘ Do not fly at the following places:

- Near another radio control flying field.
- Near or above people.
- Near homes, schools, airports, stations, hospitals or other places where people congregate.
- Near high voltage lines, high structures, or communication facilities.

⊘ When setting the transmitter on the ground during flight preparations, do not stand it upright.

- The transmitter may tip over, the sticks may move and the propeller or rotor may rotate unexpectedly and cause injury.

⊘ Do not touch the engine, motor, or ESC during and immediately after use.

- These items may become hot during use.

ⓘ For safety, fly so that the aircraft is visible at all times.

- Flying behind buildings or other large structures will not only cause you to lose sight of the aircraft, but also degrade the RF link performance and cause loss of control.

ⓘ From the standpoint of safety, always set the fail safe function.

- In particular, normally set the throttle channel to idle. For a helicopter, set the throttle channel to maintain a hover.

ⓘ When flying, always return the transmitter setup screen to the Home screen.

- Erroneous input during flight is extremely dangerous.

ⓘ Always check the remaining capacity of the transmitter and receiver batteries before each flying session prior to flight.

- Low battery capacity will cause loss of control and a crash.

❗ **Always check operation of each control surface and perform a range test before each flying session. Also, when using the trainer function, check the operation of both the teacher and student transmitter.**

■ Even one incorrect transmitter setting or aircraft abnormality can cause a crash.

❗ **Before turning on the transmitter:**

1. Always move the transmitter throttle stick position to the minimum (idle) position.
2. Turn on the transmitter first and then the receiver.

❗ **When turning off the transmitter's power switch after the engine or motor has stopped (state in which it will not rotate again):**

1. Turn off the receiver power switch.
2. Then turn off the transmitter power switch.

■ If the power switch is turned on/off in the opposite order, the propeller may rotate unexpectedly and cause a serious injury.

■ Also always observe the above order when setting the fail safe function.

❗ **When adjusting the transmitter, stop the engine except when necessary. In the case of a motor, disconnect the wiring that allows it to continue operation. When doing so, please exercise extreme caution. Ensure that the aircraft is secured and that it will not come into contact with anything or anyone. Ensure that the motor will not rotate prior to making any adjustments.**

■ Unexpected high speed rotation of the engine may cause a serious injury.

Battery and Charger Handling Precautions

*If you ignore the following safety precautions, it may cause a fire, ignition, over heating, explosion, the leakage of electrolyte fluid or getting an electric shock.

⚠ DANGER

⊘ **Do not recharge a battery that is damaged, deteriorated, leaking electrolyte, or wet.**

⊘ **Do not use the charger in applications other than as intended.**

⊘ **Do not allow the charger or battery to become wet.**

■ Do not use the charger when it or your hands are wet. Do not use the charger in humid places.

⊘ **Do not heat or short-circuit the battery.**

⊘ **Do not solder, repair, deform, modify, or disassemble the battery and/or battery charger.**

⊘ **Do not drop the battery into a fire or bring it near a fire or store them in a hot area.**

⊘ **Do not charge and store the battery in direct sunlight or other hot places.**

⊘ **Do not charge the battery if it is covered with any object as it may become very hot.**

⊘ **Do not apply excessive mechanical stress to it.**

⊘ **Do not use chargers other than those recommended by Futaba.**

⊘ **Do not use the battery in a combustible environment.**

■ The combustibles may could ignite and cause an explosion or fire.

■ Charging the battery past the specified value may cause a fire, combustion, rupture, or liquid leakage. When quick charging, do not charge the battery above 1C.

■ Do not charge the battery while riding in a vehicle. Vibration will prevent normal charging.

❗ **Insert the power cord plug firmly into the receptacle up to its base.**

❗ **Always use the charger with the specified power supply voltage.**

■ Use the special charger by connecting it to a proper power outlet.

❗ **If the battery liquid should get in your eyes, do not rub your eyes, but immediately wash them with tap water or other clean water and get treated by a doctor.**

■ The liquid can cause blindness.

❗ **Keep the battery out of reach of children.**

❗ **Always charge the battery before each flying session.**

■ If the battery goes dead during flight, the aircraft will crash.

❗ **Charge the battery with the dedicated charger supplied with the set.**

⚠ WARNING

⊘ **Do not touch the charger and battery for any length of time during charging.**

■ Doing so may result in burns.

⊘ **Do not use a charger or battery that has been damaged.**

⊘ **Do not touch any of the internal components of the charger.**

■ Doing so may cause electric shock or a burn.

⊘ **If any abnormalities such as smoke or discoloration are noted with either the charger or the battery, remove the battery from the transmitter or charger and disconnect the power cord plug and do not use the charger.**

■ Continued use may cause fire, combustion, generation of heat, or rupture.

⊘ **Do not subject the batteries to impact.**

■ Doing so may cause fire, combustion, generation of heat, rupture, or liquid leakage.

❗ **Use and store the battery and battery charger in a secure location away from children.**

■ Not doing so may cause electric shock or injury.

❗ **If the battery leaks liquid or generates an abnormal odor, immediately move it to a safe place for disposal.**

■ Not doing so may cause combustion.

❗ **If the battery liquid gets on your skin or clothing, immediately flush the area with tap water or other clean water.**

■ Consult a doctor. The liquid can cause skin damage.

❗ **After the specified charging time has elapsed, end charging and disconnect the charger from the receptacle.**

❗ **When recycling or disposing of the battery, isolate the terminals by covering them with tape.**

■ Short circuit of the terminals may cause combustion, generation of heat or rupture.

⚠ CAUTION

⊘ Do not use the battery with devices other than the corresponding transmitter.

⊘ Do not place heavy objects on top of the battery or charger. Also, do not place the battery or charger in any location where it may fall.

■ Doing so may cause damage or injury.

⊘ Do not store or use the battery and charger where it is dusty or humid.

■ Insert the power cord plug into the receptacle only after eliminating the dust.

⊘ After the transmitter has been used for a long time, the battery may become hot. Immediately remove it from the transmitter.

■ Not doing so may cause a burn.

⊘ Do not charge the battery in extreme temperatures.

■ Doing so will degrade the battery performance. An ambient temperature of 10°C to 30°C (50 °F to 86 °F) is ideal for charging.

⊘ Unplug the charger when not in use.

⊘ Do not bend or pull the cord unreasonably and do not place heavy objects on the cord.

■ The power cord may be damaged and cause combustion, generation of heat, or electric shock.

microSD Card (Commercial Product) Handling Precautions

*Read the instruction manual supplied with the microSD card for details.

⚠ WARNING

⊘ Never disassemble or modify the microSD card.

⊘ Do not bend, drop, scratch or place heavy objects on the microSD card.

⊘ If smoke or an abnormal odor emanates from the card, immediately turn off the transmitter power.

⊘ Do not use the microSD card where it may be exposed to water, chemicals, oil, or other fluids.

■ Doing so may cause a fire or electric shock by short circuiting.

⚠ CAUTION

⚠ Since the microSD card is an electronic device, be careful of static electricity.

■ Static electricity may cause erroneous operation or other trouble.

⊘ Do not use the microSD card near radio and television sets, audio equipment, motors and other equipment that generates noise.

■ Doing so may cause erroneous operation.

⊘ Do not store the microSD card in the following places:

- Where the humidity is high
- Where the temperature difference is severe
- Where it is very dusty
- Where the card will be exposed to shock and vibration
- Near speakers and other magnetic devices

⊘ Do not insert foreign matter into the transmitter card slot.

■ Doing so may cause erroneous operation.

⊘ Do not expose the card to shock and vibration and do not remove the card from the card slot while data is being written or read.

■ The data may be damaged or lost.

● Recorded data

The data recorded on the microSD card cannot be compensated regardless of the contents or cause of the trouble or obstruction. Futaba does not perform data restoration or recovery work.

Storage and Disposal Precautions

⚠ WARNING

⊘ Keep wireless equipment, batteries, aircraft, etc. away from children.

⚠ CAUTION

⊘ Do not store wireless devices in the following places:

- Where it is extremely hot (40°C [104 °F] or higher) or cold (-10°C [14 °F] or lower)
- Where the equipment will be exposed to direct sunlight
- Where the humidity is high
- Where vibration is prevalent
- Where it is very dusty
- Where the device may be exposed to steam and heat

⚠ When the device will not be used for a long time, remove the batteries from the transmitter and aircraft and store them in a dry place where the temperature is between 0°C and 30°C [32 °F and 86 °F].

■ Leaving batteries inside your model and radio when they are not being used for long periods will result in battery deterioration, liquid leakage and other damage.

Other Precautions

⚠ CAUTION

⊘ Do not directly expose plastic parts to fuel, oil, exhaust gas, etc.

■ If left in such an environment, the plastic may be damaged.

■ Since the metal parts of the case may corrode, always keep them clean.

⚠ Join the Academy of Model Aeronautics.

■ The Academy of Model Aeronautics (AMA) provides guidelines and liability protection should the need arise.

⚠ Always use genuine Futaba products such as transmitter, receiver, servo, ESC, battery, etc.

■ Futaba is not responsible for damage sustained by combination with parts other than Futaba Genuine Parts. Use the parts specified in the instruction manual and catalog.

FEATURES

T32MZ-WC additional features

- FASSTest26CH system
- Multiple servo IDs are displayed in a list with the S.BUS servo setting function.
- Sequencer function: Time difference can be set for the operation of the retractable gear and gear cover.
- Balance function: For example, if a large aircraft has three servos mounted on one aileron, the movements may not be synchronized even though the neutral can be adjusted. The balance function can fine-tune and synchronize this disharmony.
- Receiver setting function: By connecting a compatible receiver to the transmitter, settings such as CH mode can be made from the transmitter.
- DLPH-2 setting function: Connecting the DLPH-2 Dual RX Link Power HUB to the transmitter, can set the DLPH-2 mode from the transmitter.

FASSTest system

The T32MZ-WC transmitter adopted the bidirectional communication system "FASSTest". Data from the receiver can be checked in your transmitter. FASSTest is a maximum 26 channels (linear 24 channels + switch 2 channels) 2.4 GHz dedicated system.

Channel expansion (multiprop function)

The multiprop function can be used by using the separately sold multiprop decoder MPDX-1. The multiprop function is a function that divides one channel into eight channels and extends the number of channels. Up to 2 MPDX-1s can be used, and up to 32 channels can be expanded as follows. (In the case of FASSTest18CH)

- Linear channel 14 channels (2 channels are used by multi-prop function)
- ON/OFF channel 2 channels
- Multiprop channels 16 channels

Multiprop channels have the following differences from normal linear channels.

- The resolution of the multiprop channel is lower than that of the linear channel.
- Operating multiple multiprop channels simultaneously may reduce the operation response of the multiprop channel.
- Multiprop channels can not use the mixing function.

S.BUS2 system

By using the S.BUS2 system multiple servos, gyros and telemetry sensors are easily installed with a minimum amount of cables.

Windows Embedded Compact 7

T32MZ-WC utilizes the world famous Microsoft Windows Embedded Compact 7, which offers outstanding dependability and valuable resources.

Color LCD Main display

T32MZ-WC has a HVGA (640x240 pixels) full color backlight LCD touchscreen. The screen is manufactured of a transreflective construction which enables both indoor and outdoor visibility.

Color LCD Sub display

T32MZ-WC has a color LCD sub-display. It will be possible to know telemetry information separately from the main display. The sub display uses a reflective LCD with good visibility even outdoors.

Music Play

T32MZ-WC can playback WMA (Windows Media Audio) files on a microSD-Card. You can enjoy music by the internal speaker or stereo headphones from the earphone jack. A switch can be assigned to start/stop your music.

Voice Recording

You can record your own voice using the internal microphone and then play back commands assigned to certain switches. Recording time is 3 seconds maximum and 24 voice files can be stored.

Secure Data (microSD)

Model data, music files, voice files and picture files can be stored on optional microSD card. The microSD card is also used when updating the software/features of the T32MZ-WC.

High capacity lithium polymer battery (6600 mAh)

The high capacity Lithium Polymer battery gives you extended flight time.

Editing

The touch panel and Two enter keys allows you to edit your model in the manner that is easiest for you.

Functions

The internal dual processors operate the many 32MZ-WC functions and optimize the response time. Most of the mixing functions are operated by curves which give you very precise settings.

Stick

Each axis is supported by dual ball bearings. And the magnetic detection type noncontact potentiometers was newly equipped. This allows for finer and more precise operation. Also, the throttle stick is an external screw adjustment, you can choose ratchet or spring self neutral.

Replaceable switches

You can replace 4 of the toggle switches on the right and left shoulder, with optional switches (two position, three position, and momentary etc.).

Vibration function

Low voltage and other alarms are generated by a vibration motor. Alarms or vibrations to be used can be selected by the owner.

R7208SB/R7308SB/R7214SB

The system comes with R7208SB, R7308SB, or R7214SB receiver featuring bi-directional communication.

(The receiver that comes with the product differs depending on the region where you use it (some sets are sold as a single transmitter and do not include a receiver), so please check the receiver you are using.)

CONTENTS

(Specifications and ratings are subject to change without notice.)

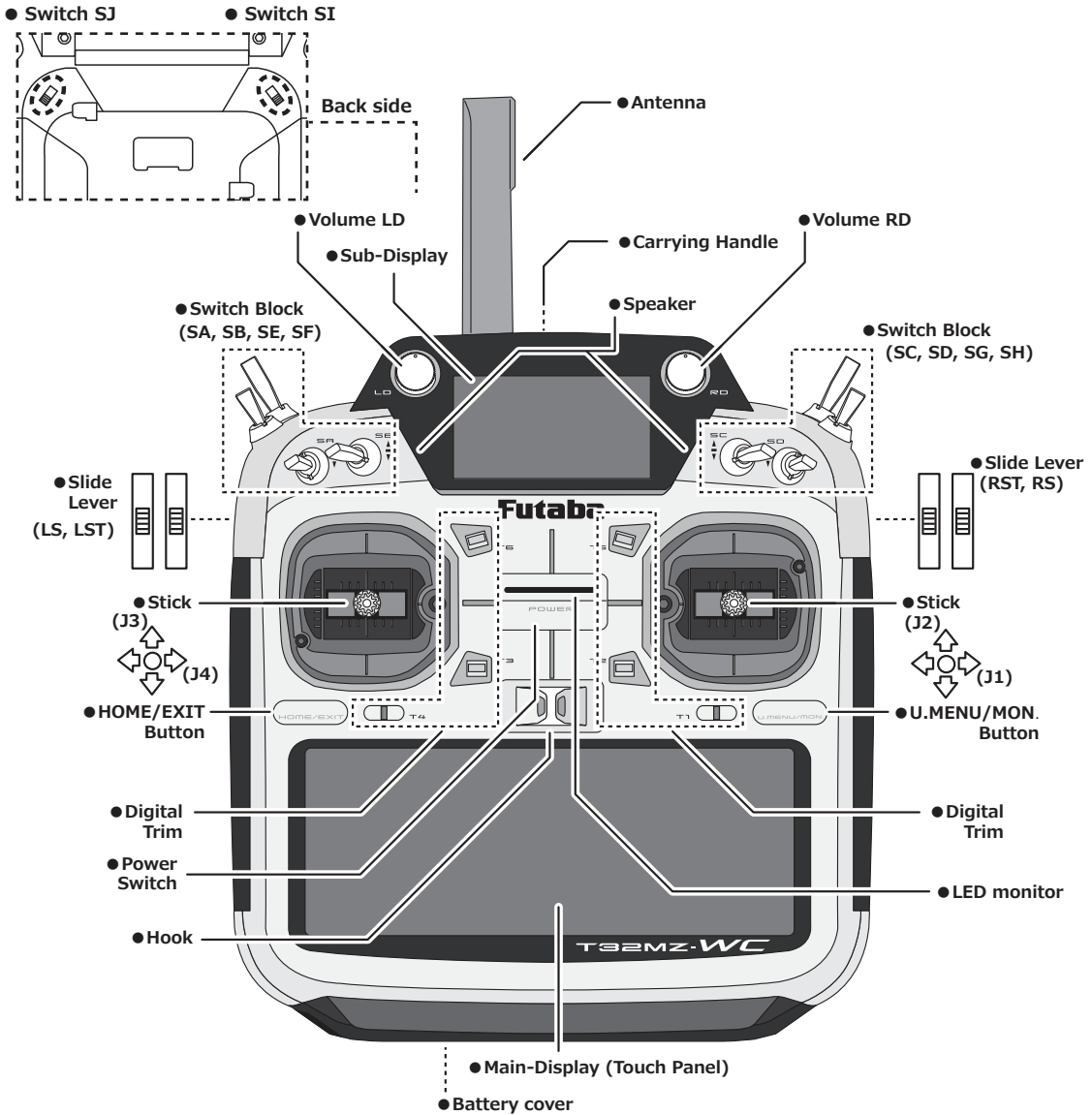
Your 32MZ-WC (packaged with an S.BUS receiver) includes the following components:

- T32MZ-WC Transmitter
- R7208SB, R7308SB, R7214SB, or receiver-less
(The receiver that comes with the product differs depending on the region where you use it, so please check the receiver you are using.)
- LT1F6600B Lithium-polymer battery & AC adapter
- Switch harness
- Tool Box (includes special jig for adjustment)
- Neck strap
- Transmitter case

The set contents depend on the type of set.

Note: The T32MZ-WC battery does not arrive plugged into the transmitter connector housing. Please connect the battery connector before use.

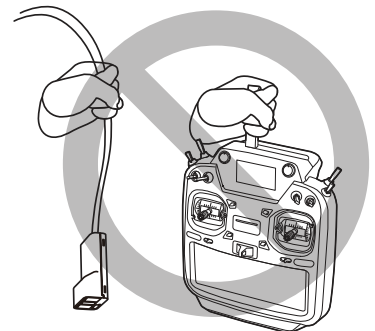
TRANSMITTER



Cautions on handling antenna

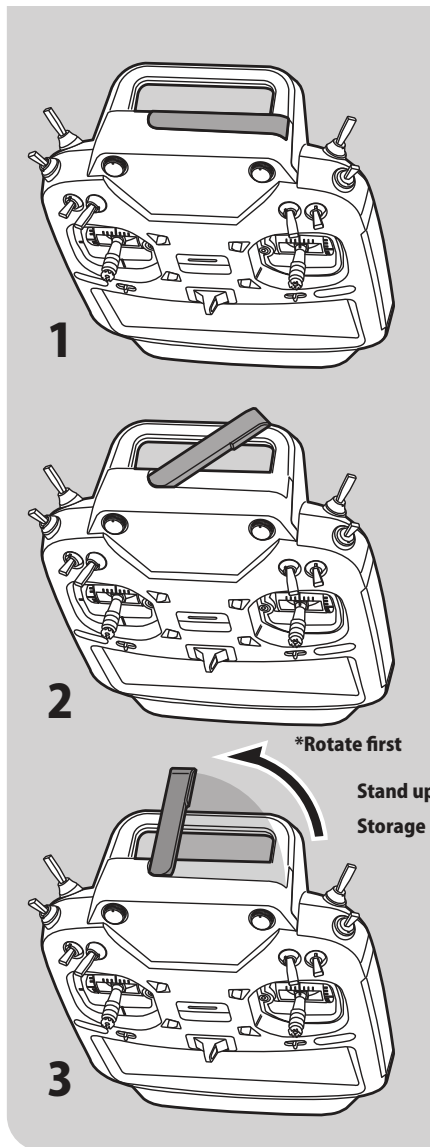
⚠ WARNING

- ⊘ Do not touch the antenna during operation.
 - There is the danger of erroneous operation causing a crash.
- ⊘ Do not carry the transmitter by the antenna.
 - There is the danger that the antenna wire will break and operation will become impossible.
- ⊘ Do not pull the antenna forcefully.
 - There is the danger that the antenna wire will break and operation will become impossible.



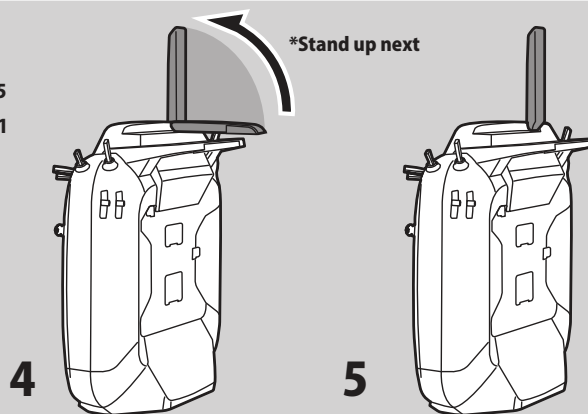
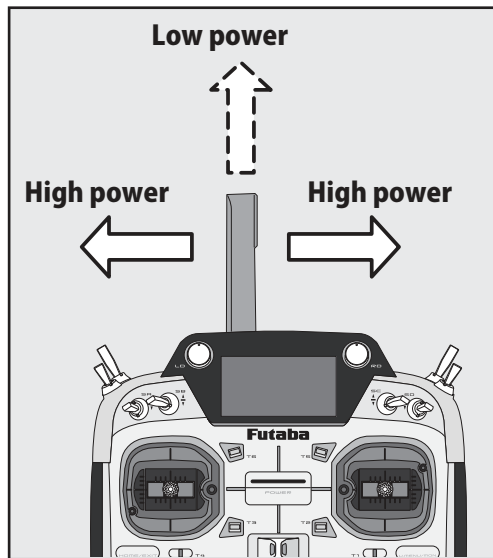
Rotating antenna

The antenna can be rotated 90 degrees and angles 90 degrees. Forcing the antenna further than this can damage it. The antenna is not removable.



Angle adjustment of the antenna

The antenna rotation and angle can be adjusted. The antenna features weak radio waves in the forward direction and strong radio waves in the sideways directions. Adjust the antenna angle to match your flying style.

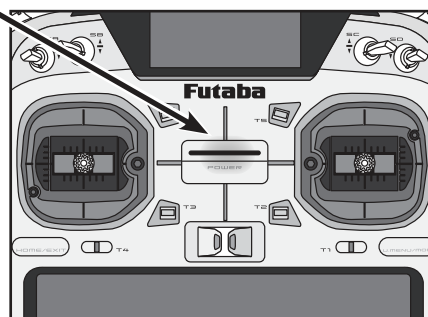


LED monitor

The status of the transmitter is displayed by changing the "MONITOR" section LED.

(LED Display)

- ◆ FASSTest mode → Light Blue light
- ◆ FASST mode → Green light
- ◆ S-FHSS/T-FHSS mode → yellow-green light
- ◆ RF-OFF → Violet light
- ◆ Starting → Red light
- ◆ Trainer Student → Blue light

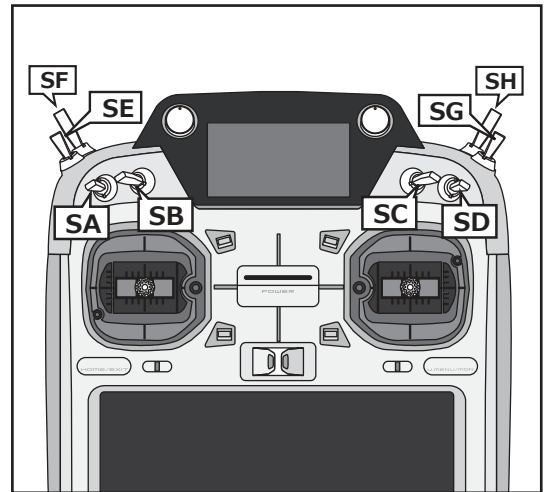
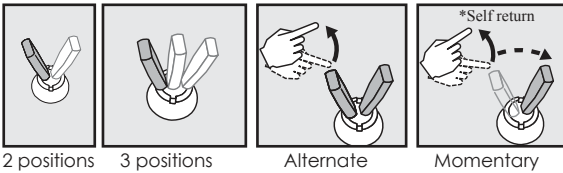


Toggle switch

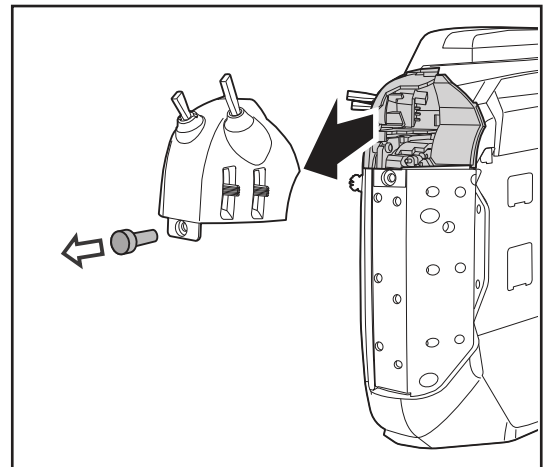
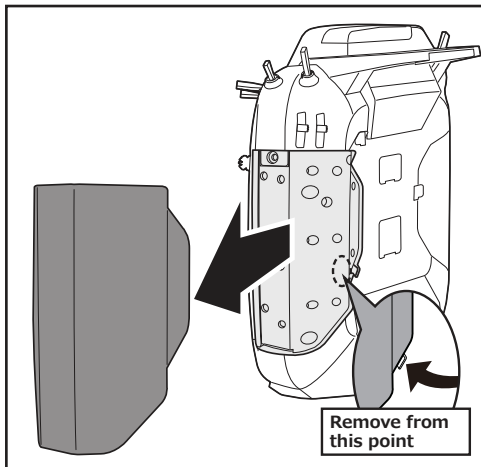
8 switches can be assigned to each function.

- SA : 3 positions; Alternate; Short lever
- SB : 3 positions; Alternate; Long lever
- SC : 3 positions; Alternate; Long lever
- SD : 3 positions; Alternate; Short lever
- SE : 3 positions; Alternate; Short lever
- SF : 2 positions; Alternate; Long lever
- SG : 3 positions; Alternate; Short lever
- SH : 2 positions; Momentary; Long lever

*You can choose the Switch and the On/Off position in the Switch Selection menu of your mix.



When you change switches (SE, SF, SG, SH):



To relocate switches;

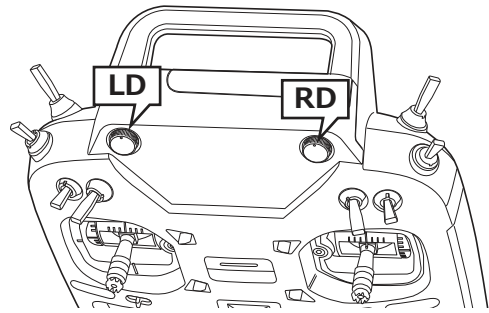
1. Make sure your transmitter is off, and remove the side rubber cover.
2. Use the driver to turn the screw counter-clockwise on the switch block and detach the block. Remove the screw holding the switch block. Pull the switch block remove.
3. Disconnect the connectors of switches you want to change.
4. Use the attached jig (inside stylus) to turn the face nuts counterclockwise, this will detach the switches.
5. To re-attach, use the face nuts to attach switches from other positions or optional switches to the switch block.
6. Connect your connectors.
7. Insert the switch block so reconnect the connectors that it fits correctly into the body of the transmitter and use the driver to tighten the screws.

Volume

Volume LD and RD:

Two volumes can be assigned to each function.

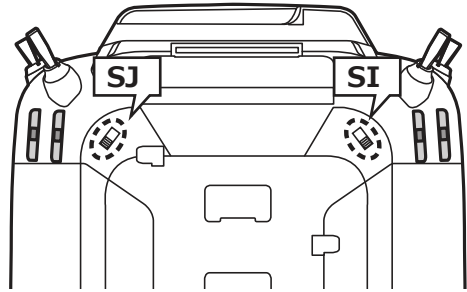
- *It will beep when the lever is set to the center.
- *You can check the position on the dial-monitor screen in the linkage menu.



Back side switch

Switch SI, SJ:

You can choose switches and the ON/OFF-direction in the setting screen of the each functions.



Slide Lever

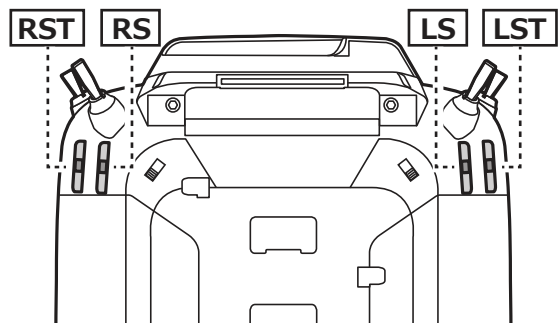
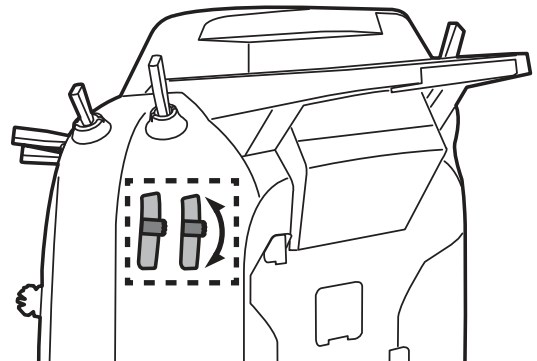
LST (Left), RST (Right):

Outside levers

LS (Left), RS (Right):

Inside levers: Each lever has two ends, one at the front and the other at the back of the transmitter.

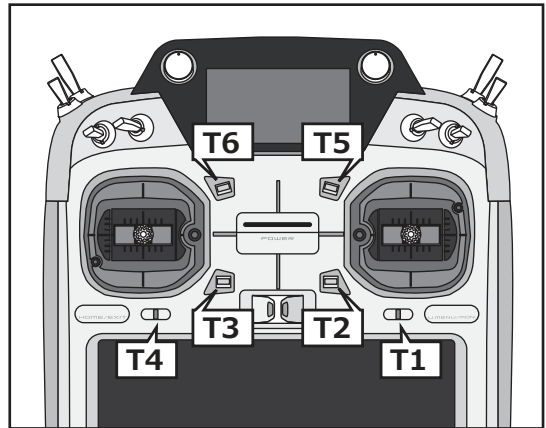
- *It will beep when the lever is set to the center.
- *You can check the lever position on the dial-monitor screen in the linkage menu.
- *You can select a slide lever and set the movement direction on the setting screen of mixing functions.



Digital trim

This transmitter is equipped with digital trims. Each time you press a trim button, the trim position moves one step. If you continue pressing it, the trim position starts to move faster. In addition, when the trim position returns to the center, the tone will change. You can always monitor trim positions graphics on the screen. To change the trim rate, you must activate this through the function menu, within the linkage menu. Touch the trim button and you will access another screen which enables you to change the trim percentages.

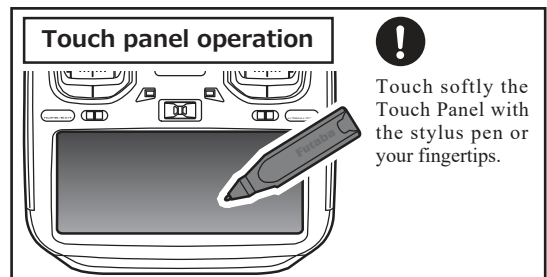
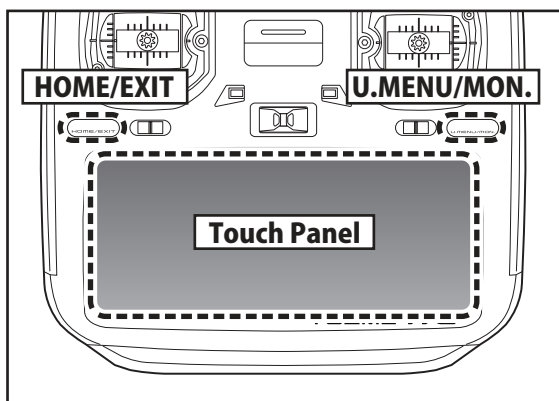
Note: The trim positions you have set will be stored in the non-volatile memory and will remain there.



Touch Panel

Touch panel and HOME/EXIT & U.MENU/MON. button are used for entering data.

Touch the panel with your finger or the attached stylus pen, which is also used as a toolbox, to enter data.



Touch softly the Touch Panel with the stylus pen or your fingertips.

*Plastic film is attached to the touch panel. Please be careful so that you don't scratch the touch panel with anything hard such as a metal object. Don't push the touch panel with excessive force or drop anything on the panel.

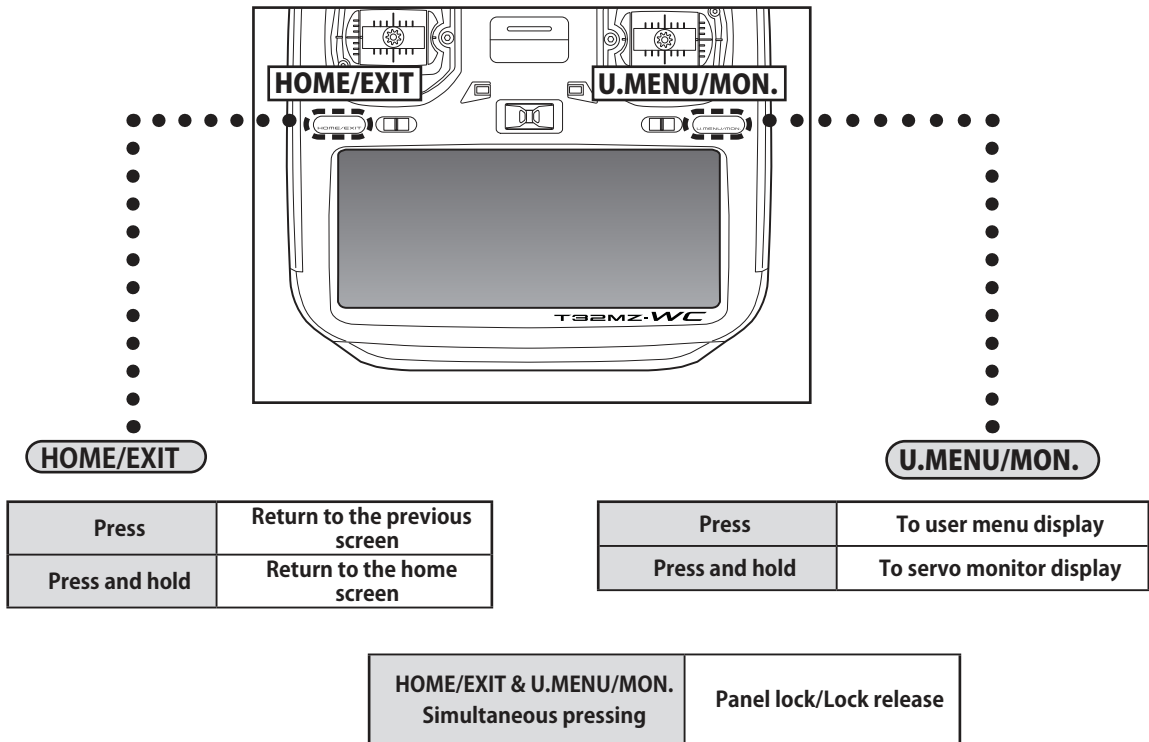
*Although you may find some air bubbles under the plastic panel due to environmental changes such as temperature, it is not a defect and will cause no problems.

*Color LED is made from many pixels. Some pixels hold lighting. Moreover, some pixels go out. And a screen may flicker. Such condition is the characteristics of color LED. It is not failure.

⚠ DANGER

! The T32MZ-WC touch screen is very sensitive. To avoid accidentally activating it during a flight, it is suggested that it be locked. Due to the touch screen's sensitivity, allowing it to be touched during flight by a neck strap hook, servo extension, or even your hand could be dangerous. Please use the touch panel lock for added safety during flight.

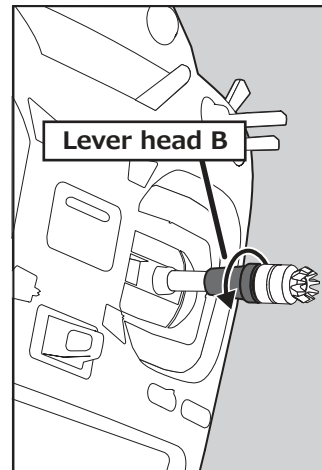
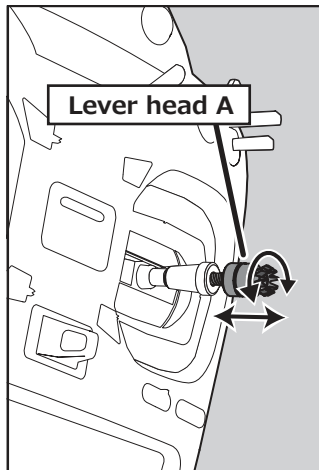
HOME/EXIT & U.MENU/MON. Button



Stick Adjustment

Adjustment of the lever length

You can adjust the length of stick levers, if you like. It is recommended to adjust the length of the sticks in line with your hand size.

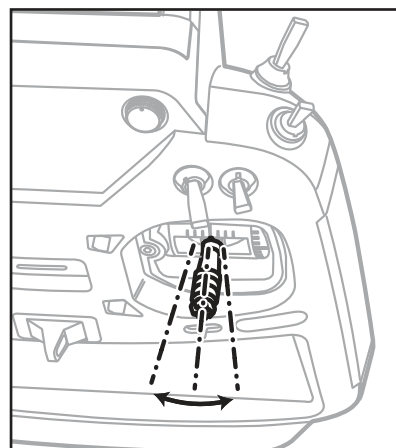
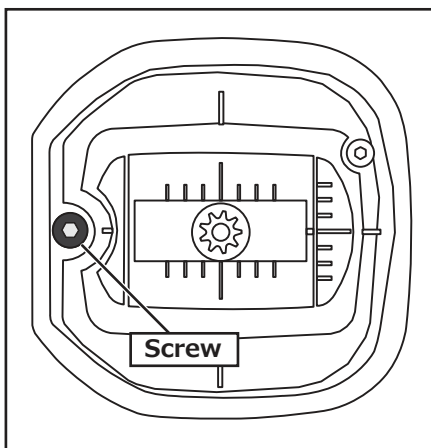


[How to adjust the Stick length.]

1. Hold the lever head "B" and turn the lever head "A" counter-clockwise, the lock will be released.
2. Adjust the stick lever to the desired length by turning lever head A.
3. Securely lock the stick lever by holding lever head A and turning lever head B counterclockwise.

Adjustment of the stick lever angle

You can make fine adjustments to the angle of a stick lever either inwards or outwards from the center stick position.



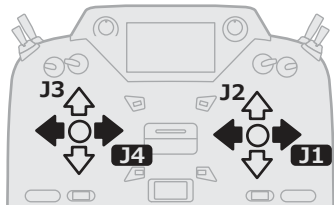
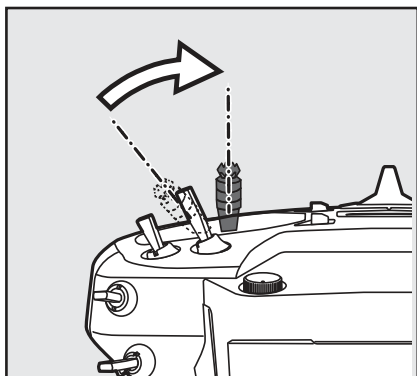
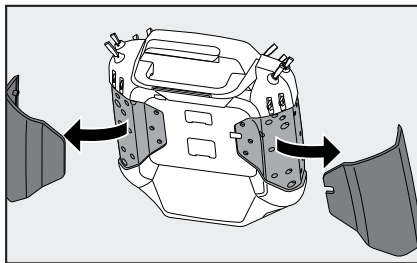
Use the attached 1.5 mm hexagonal wrench (inside stylus) to turn the screw clockwise to adjust the stick outwards, or counter-clockwise to tilt it inward.

Note: Be careful not to turn the screw too far counterclockwise as it could fall out.

Adjustment of Stick Lever Tension

You can adjust the tension of stick-levers.

The rubber cover in the back is removed first.



[Adjustment of tension]

Adjustment of Throttle Stick (Ratchet System)

You can choose either airplane ratchet system or helicopter-touch.

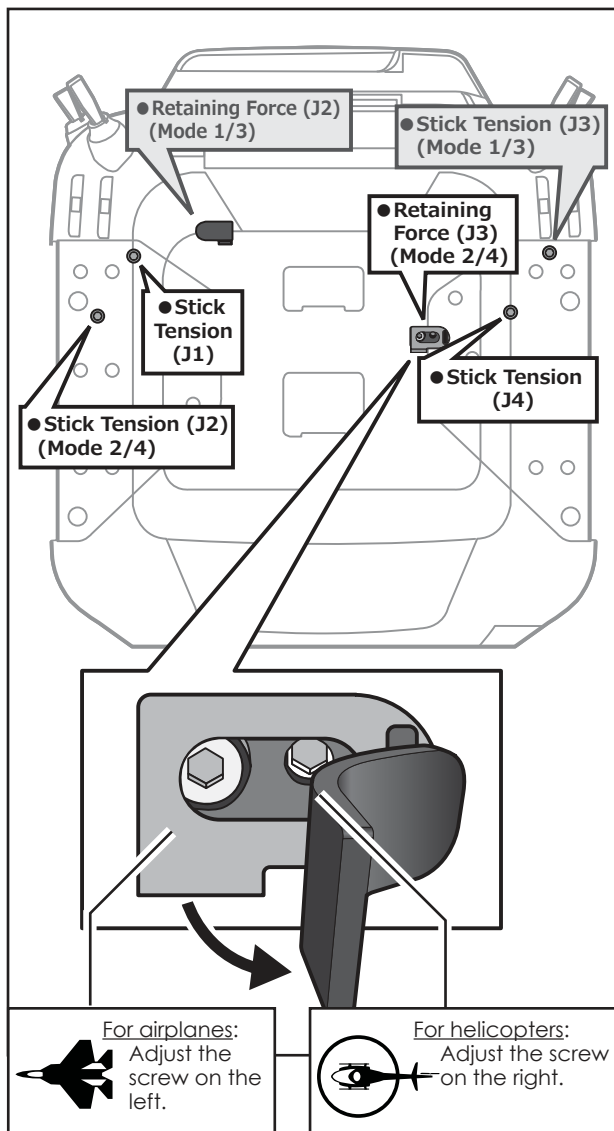
1. Open the dust protection cap on the back of the transmitter that is covering the hole for throttle stick adjustment.
2. Use the attached 1.5 mm hexagonal wrench (inside stylus) to turn the adjustment screw and set it as you prefer. Turning the screw clockwise increases the tension.

For airplanes: Adjust the screw on the left.

For helicopters: Adjust the screw on the right.

In changing the setting from airplane to helicopter (or heli to airplane);

1. Turn the screw counter-clockwise until the throttle stick moves freely, and turn the screw clockwise to adjust it to the tension you prefer.



*In the Mode 1/3, arrangement of a screw is opposite.


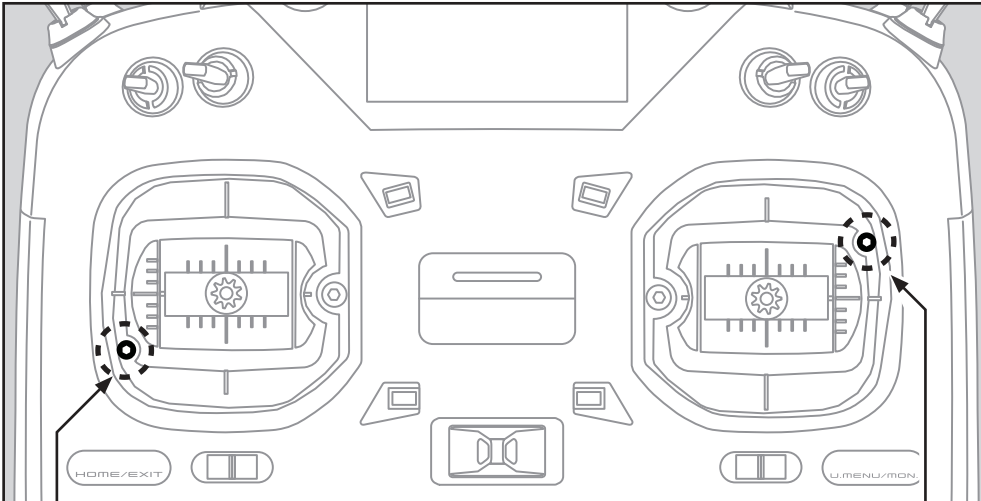
*This transmitter has two ratchet plates, one for airplane and the other one for helicopter. If you tighten both screws, you won't be able to achieve the adjustment that you need because of the overlap of those two adjustments.

*If you want to change the setting from airplane to helicopter (or from helicopter to airplane), turn the ratchet screw clockwise until the throttle stick moves freely. Then turn the screw for the helicopter until you get the tension you like.

Release of spring tension


The spring tension can be released by tightening the screw in the figure below.

e.g. Stick mode 2 → Stick mode 1

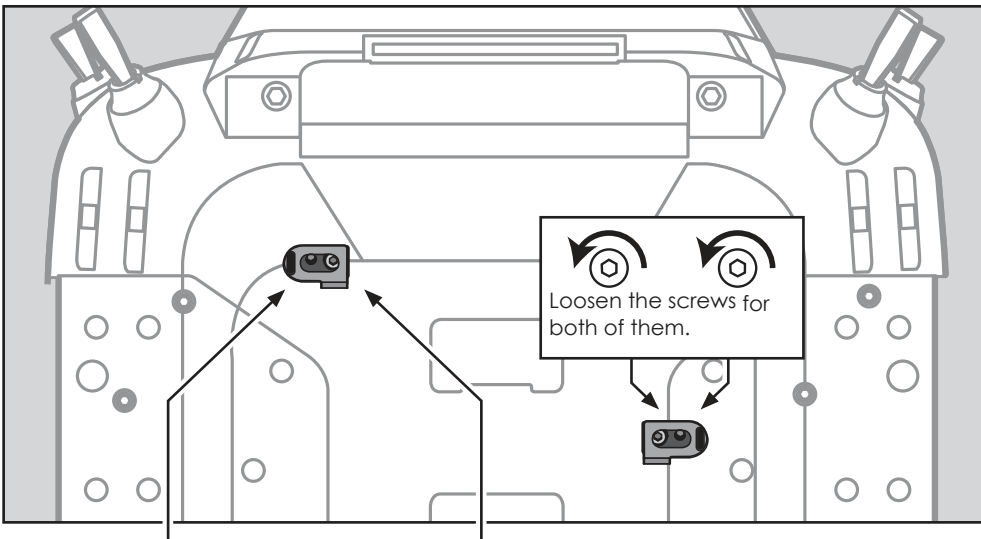


Loosen this screw and add spring tension.



Back side



Tighten this screw to release the spring tension.



Loosen the screws for both of them.



For helicopters: Adjust the screw on the left.



For airplanes: Adjust the screw on the right.

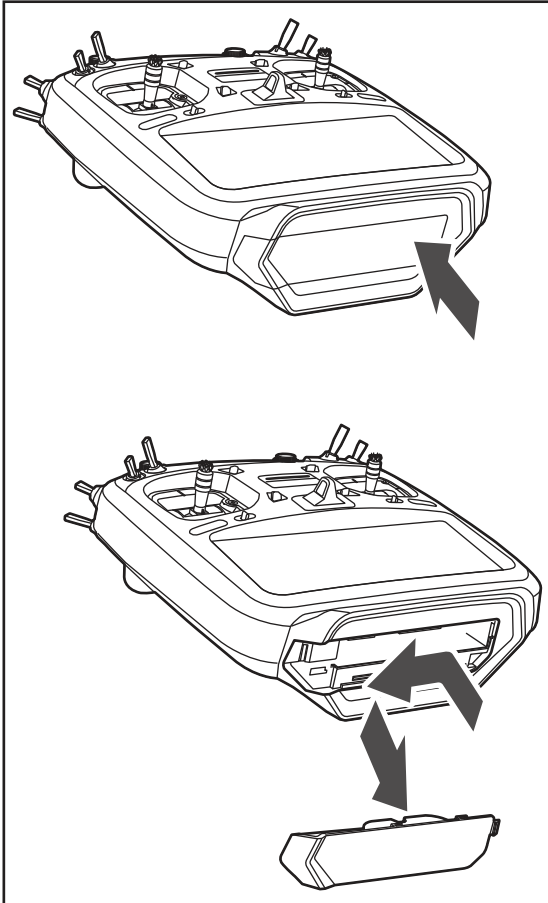
Next change the function

Change the function of Elevator-Throttle.
Linkage Menu → Function → SWAP

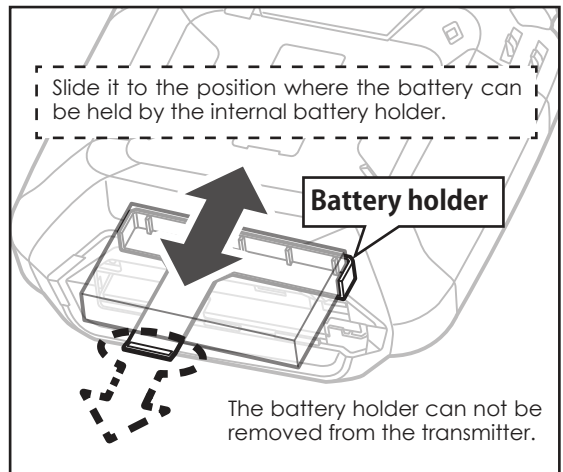
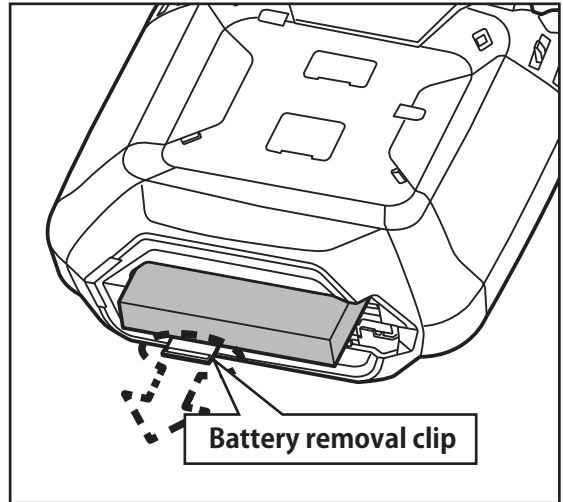
Battery exchange

Note: Detaching the battery while the power is on can cause data you have recently edited to be lost.

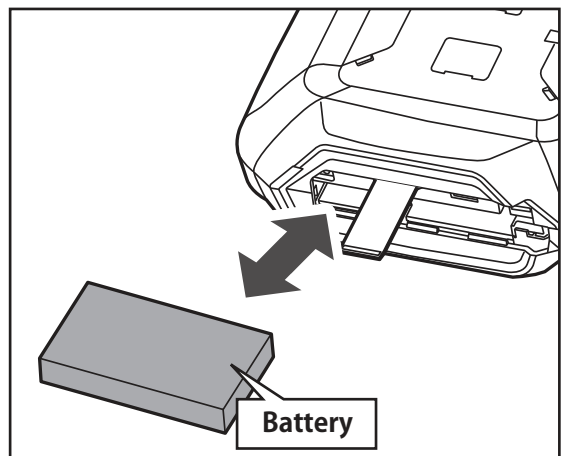
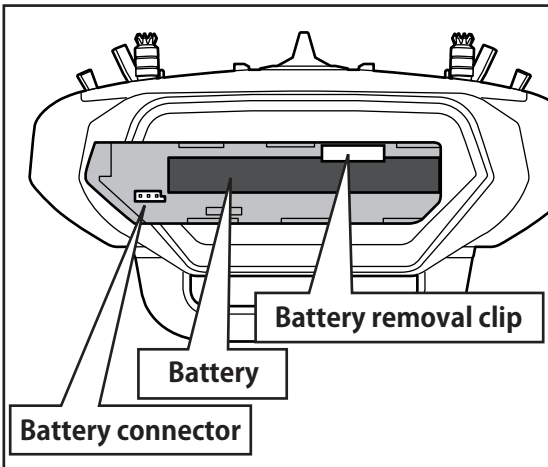
1. Open the battery cover by sliding as shown in the figure.



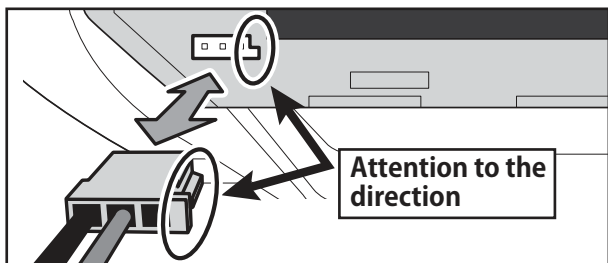
2. Pull out the Battery removal clip and slide out the battery.



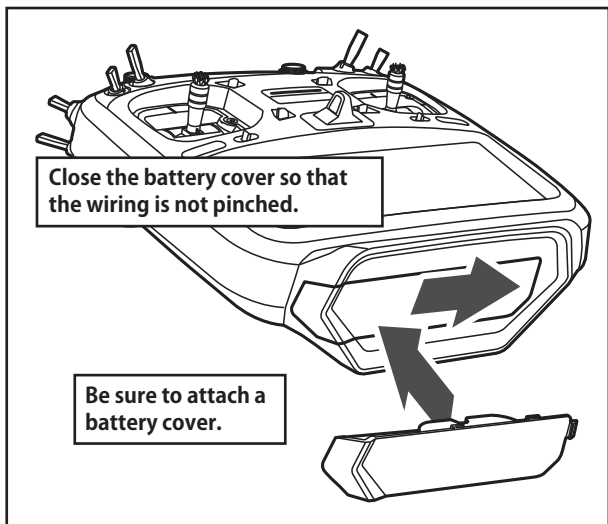
3. Remove the battery from the battery holder.



4. Connect the battery wiring as shown in the figure.



5. Slide and install the battery cover.



⚠ WARNING

⚠ Be careful to not drop the battery.

⊘ Never take out the battery from the T32MZ-WC transmitter while the LED monitor is blinking.

■ Internal settings and memories can be destroyed.

■ Do not use the transmitter if a "Backup Error" warning occurs. Send it to the Futaba Service Center to be checked.

⊘ Don't pull battery wiring.

■ When it short-circuits, there is danger of explosion ignition.

Note: The T32MZ-WC battery does not arrive plugged into the transmitter connector housing. Please connect the battery connector before use.

Battery Charging

1. Turn off the transmitter power.
2. Connect the power plug of the AC adapter to an AC outlet.
*Don't connect AC plug to the T32MZ-WC without connecting with an AC outlet.
3. Open the back lid of the transmitter and insert the plug of the AC adapter into the CHG port.
4. The charging monitor of the transmitter lights red.

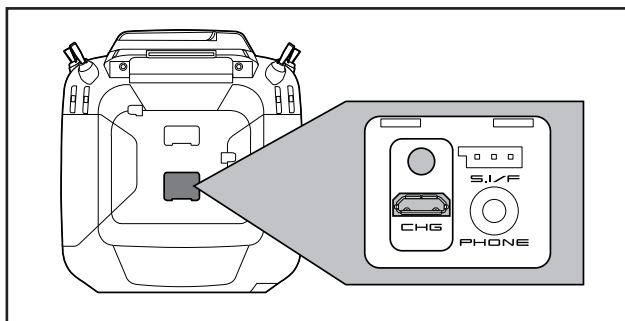
*In the case LCD screen will come on for several seconds and then go off. It may take several seconds for charging to start after the AC adapter is connected.

5. When the battery is fully charged the charge monitor will light off. Remove the charge plug and AC adaptor.

*After using the AC adapter always disconnect the power cord from the AC outlet.

*The time to charge a completely discharged battery pack is approximately 4 hours. However, the actual charging time may vary depending on temperature and state of the battery.

*If the battery is improperly installed or is faulty, the charging monitor will not light and the battery will not charge.



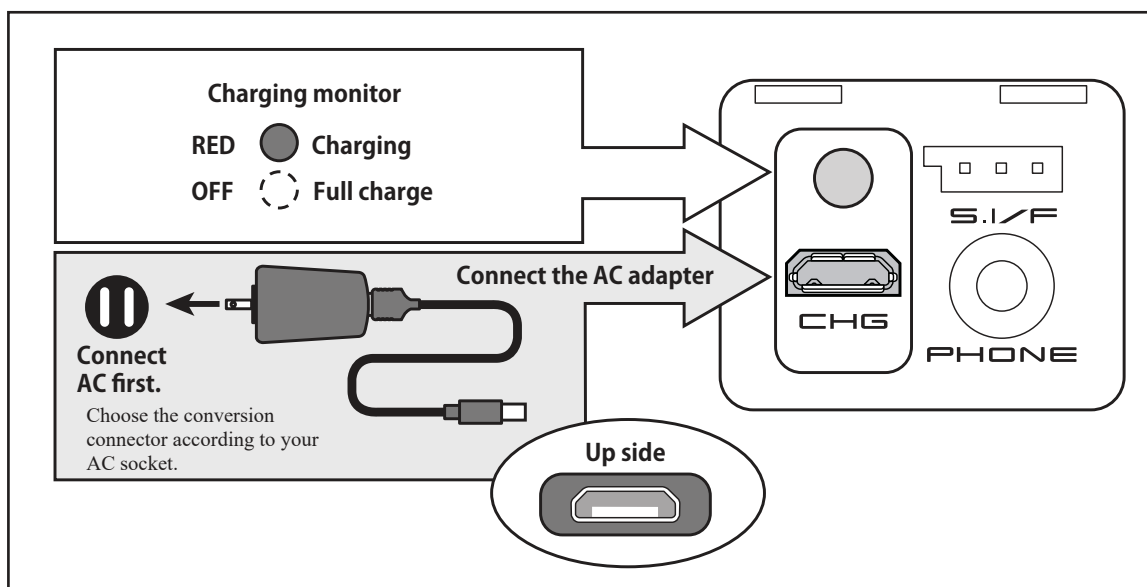
⚠ DANGER

⊘ The LT1F6600B lithium-polymer battery is for the T32MZ-WC transmitter only. Do not use it with other devices.

⚠ Always use the included AC adapter to charge the battery. The charging circuit is built into the T32MZ-WC.

⚠ WARNING

⊘ The transmitter battery cannot be charged with the receiver charger. Conversely the receiver battery cannot be charged with the transmitter charger.



microSD Card (sold separately)

The microSD card can store various files, such as model data, music, sound files and pictures. Any microSD card on the market can be used with the T32MZ-WC. The card is locked when it is pushed in all the way in. To remove the card, push in on the card again, it will pop up allowing you to remove it.

Model data of the microSD card is used for storage. Direct flight is not possible with microSD card model data. Copy to T32MZ-WC and use it.

⚠ WARNING

❗ Be sure to turn off the power to the transmitter before inserting or removing the microSD card.

⊘ As the microSD card is a precision device, do not use excessive force when inserting.

❗ If model data generated by a new software version transmitter is copied to an old software version transmitter, the transmitter may operate erroneously. Copy the model data after updating the copy destination transmitter to the new software version.

Read data from a PC

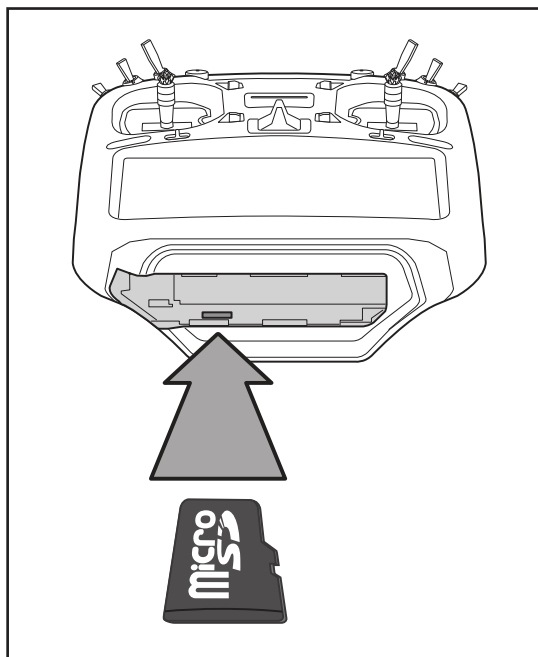
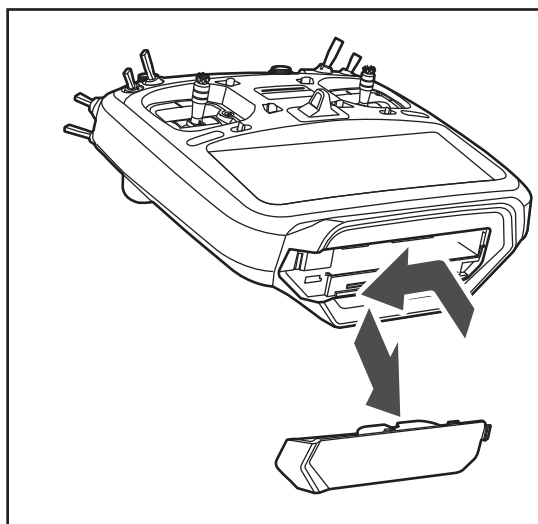
Saving music and image files edited by a PC into the microSD card, you can use those files on your T32MZ-WC transmitter. Equipment for reading and writing microSD cards are available at most electronics stores.

Stored data

The life of the microSD card is limited due to the use of flash memory. If you have a problem saving or reading data such as picture data after a long period of use you may need to purchase a new microSD card.

*We are not responsible for, and cannot compensate for any failure to the data stored in the memory card for any reason. Be sure to keep a backup of your models and data in your microSD card.

***No need for backup battery;** T32MZ-WC transmitters and microSD cards are using nonvolatile memory devices so that the data stored in those will not be destroyed even without a backup battery. The clock for the transmitter depends on the Lithium battery.



Connector for trainer function (TRAINER)

When you use trainer function, connect the optional trainer cable between the transmitters for teacher and student.

*You can set the trainer function on the Trainer Function screen in the system menu

S.BUS connector (S.I/F)

When setting an S.BUS servo or telemetry sensor, connect here.

Audio plug (PHONE)

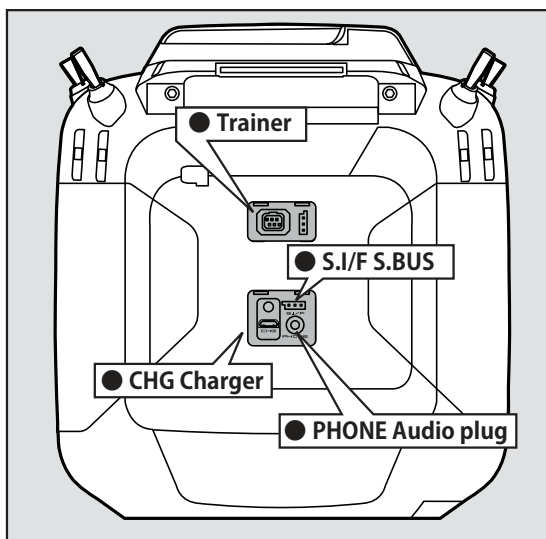
Connecting a stereo headphone to this plug, you can enjoy music files stored in the microSD card.

Connector for battery charger (CHG)

You cannot use the charger that was included with the transmitter, without using the AC adapter that comes with this.

⚠ DANGER

⊘ Do not connect any other chargers. The charger for the receiver battery cannot be used for the transmitter.



CRSF connector

AdRCSS 900MHz system by connecting the separately sold AdRCSS 900MHz module TM-18.

*TM-18 AdRCSS 900MHz system can only use up to 16 channels.

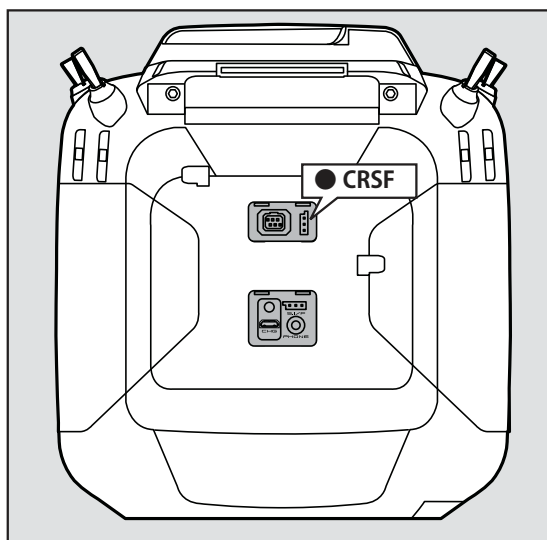
CRSF Protocol for TBS

The T32MZ-WC has been made compatible with the CRSF (TBS) protocol.

*Bidirectional communication function of CRSF is not supported.

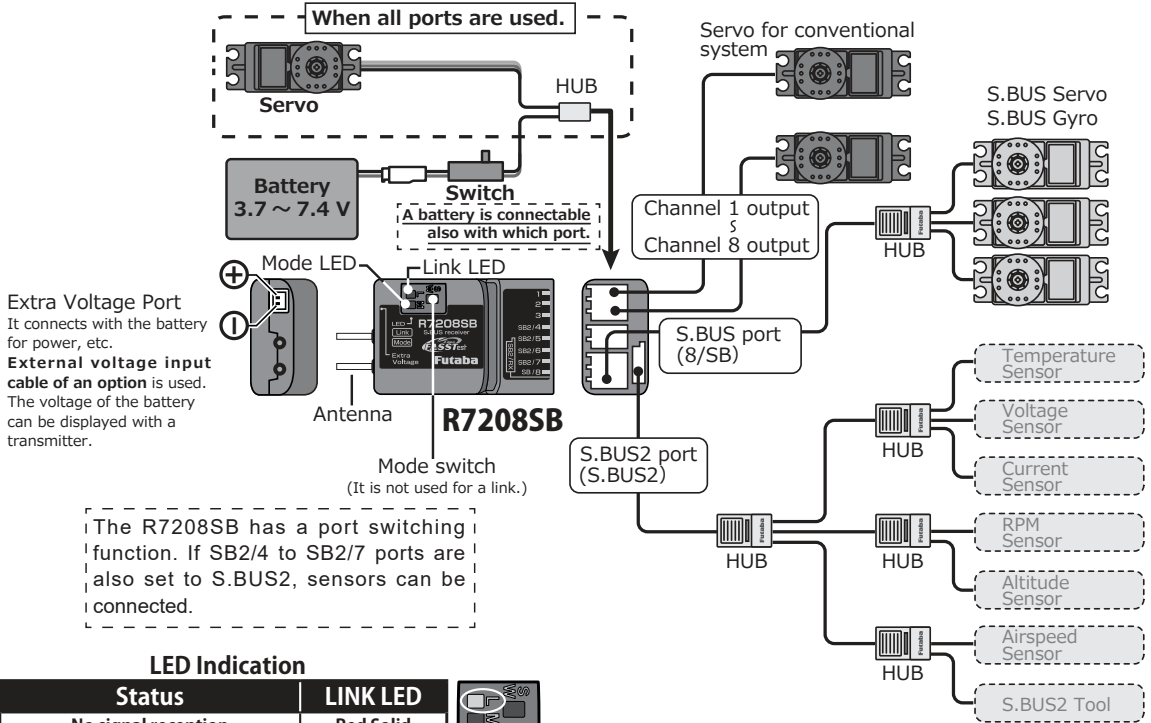
⚠ WARNING

⊘ Futaba is not responsible for damage sustained by combination with parts other than Futaba Genuine equipment.



RECEIVER

(Typical installation)



LED Indication

Status	LINK LED
No signal reception	Red Solid
Receiving signals	Green Solid
Waiting for link	Start → 2second later → Red Blink (3 second)
Unrecoverable error (EEPROM, etc.)	Red Green Alternate blink

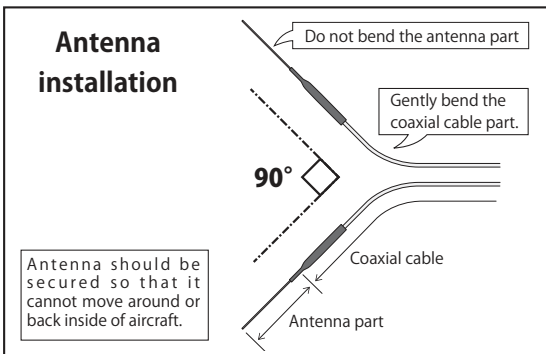
In Dual RX Link Mode

Status	MODE LED
External receiver is receiving error or not connected. S.BUS signal not received	Red Solid
S.BUS signal reception from external receiver (also received by external receiver)	Green Solid

In FASSTest12CH Telemetry OFF Mode

Status	LINK LED
Start	Orange Solid

Antenna installation



S.BUS2

S.BUS2 extends S.BUS and supports bidirectional communication. Sensors are connected to the S.BUS2 port.

Antenna instructions

1. The two antennas must be kept as straight as possible. Otherwise it will reduce the effective range.
2. The two antennas should be placed at 90 degrees to each other.

This is not a critical figure, but the most important thing is to keep the antennas away from each other as much as possible.

Larger models can have large metal objects that can attenuate the RF signal. In this case the antennas should be placed at both sides of the model. Then the best RF signal condition is obtained at any flying attitude.

3. The antennas must be kept away from conductive materials, such as metal, carbon and fuel tank by at least a half inch. The coaxial part of the antennas does not need to follow these guidelines, but do not bend it in a tight radius.
4. Keep the antennas away from the motor, ESC, and other noise sources as much as possible.

Channel Modes

The R7208SB is capable of changing its channel allocations as described in the table below. This is especially important when using the receiver in a dual receiver mode. See your transmitter operation manual for complete details on operating in the dual receiver mode.

R7208SB CH Mode table

Output connector	Channel									
	Mode A	Mode B	Mode C	Mode D	Mode E	Mode F	Mode G	Mode H	Mode I	Mode J
1	1	1	1	1	9	9	9	17	17	17
2	2	2	2	2	10	10	10	18	18	18
3	3	3	3	3	11	11	11	19	19	19
SB2 / 4	4	4	4	S.BUS2	12	12	12	20	20	20
SB2 / 5	5	5	5	S.BUS2	13	13	13	21	21	21
SB2 / 6	6	6	6	S.BUS2	14	14	14	22	22	22
SB2 / 7	7	7	S.BUS2	S.BUS2	15	15	S.BUS2	23	23	S.BUS2
SB / 8	8	S.BUS	S.BUS	S.BUS	16	S.BUS	S.BUS	24	S.BUS	S.BUS
LED blink	RED 1	RED 2	RED 3	RED 4	RED 5	GREEN 1	GREEN 2	GREEN 3	GREEN 4	GREEN 5



Default

- 1 Turn on the receiver. [Transmitter is always OFF]
- 2 Press and hold the SW for 5 seconds to 10 seconds.
- 3 When the LED of the receiver changes from blinking red to blinking orange, SW is released.
- 4 The LED should now blink red two times in the patterns described in the chart below.
- 5 Each press of the SW advances the receiver to the next mode.
- 6 When you reach the mode that you wish to operate in, press and hold the SW for more than 2 seconds. When LED blinks in orange, it is the completion of a mode change, SW is released.
- 7 Cycle the receiver power off and back on again after changing the Channel mode.



Check

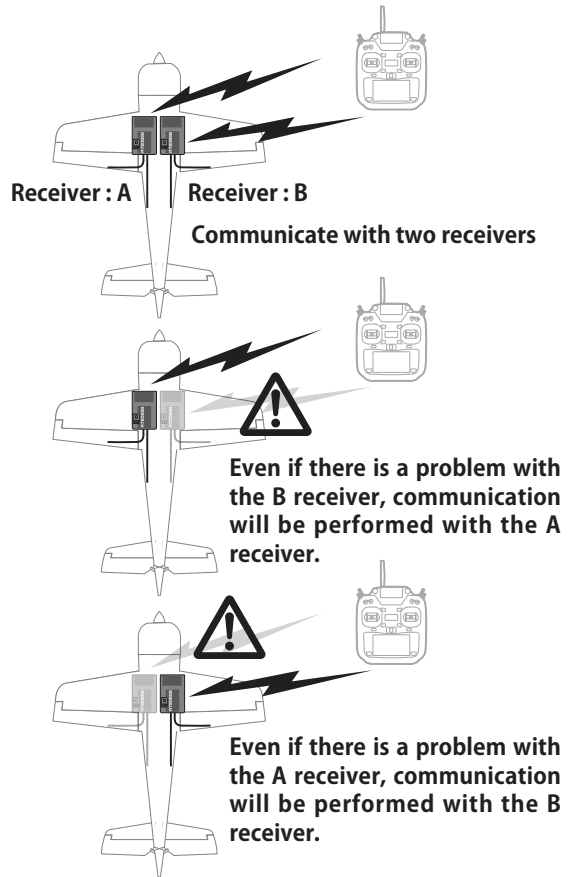


LINK LED

- | | |
|--|--|
| 1 Turn on the receiver. [Transmitter is always OFF] | Red Solid |
| 2 Receiver enters link waiting state | Start → 2second later → Red Blink (3 second) |
| 3 The LED will flash for the current CH output mode. | Current CH mode display |

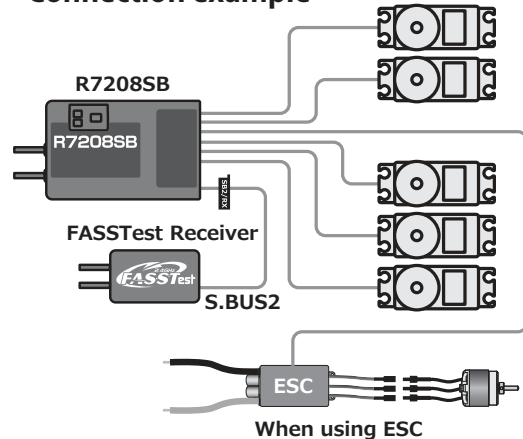
Dual Rx Link System

By installing two receivers in one aircraft, if one receiver becomes unable to communicate, the other receiver can be operated.



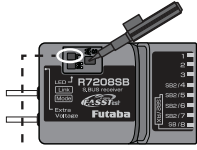
In Dual RX link mode, the SB2/RX port is for reception only, so use CH mode B, C, D, F, G mode for S.BUS output and S.BUS2 input/output.

Connection example



How to change to Dual RX Link mode

- 1 Turn on the receiver. [Transmitter is always OFF]
- 2 Press and hold the SW for 5 seconds or more.



Blinking switches every 5 seconds as follows.

RED → ORANGE → GREEN → ORANGE slow blink

- 3 Release the switch here

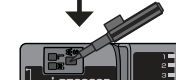
If it is passed, turn off the power and restart

Dual RX Link mode : OFF

Blinks GREEN once



Press SW once more to return to flashing green once



- 4 Press switch

Blinks GREEN twice



Dual RX Link mode : ON

- 5 Press and hold the SW

Blinks ORANGE



- 6 Release SW
Solid ORANGE



- 7 Turn off the receiver power



After restarting, the MODE LED lights up.

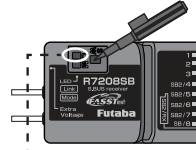


Status	MODE LED
External receiver is receiving error or not connected. S.BUS signal not received	Red Solid
S.BUS signal reception from external receiver (also received by external receiver)	Green Solid

FASSTest12CH(Telemetry OFF) mode

This mode is forcibly turning off telemetry transmission to prevent collision of telemetry signals from the receiver to the transmitter when using dual RX link mode in FASSTest12ch mode.

- 1 Turn on the receiver. [Transmitter is always OFF]
- 2 Press and hold the SW for 5 seconds or more.



Blinking switches every 5 seconds as follows.

RED → ORANGE → GREEN → ORANGE slow blink

- 3 Release the switch here

Blinks ORANGE once



FASSTest12CH(Telemetry OFF) mode : OFF

Press SW once more to return to flashing orange once



- 4 Press switch

Blinks ORANGE twice



FASSTest12CH(Telemetry OFF) mode : ON

- 5 Press and hold the SW

Blinks ORANGE



Change to this mode when using FASSTest12CH in dual RX link mode.

- 6 Release SW
Solid ORANGE



- 7 Turn off the receiver power



After restarting, the LINK LED lights up.



In FASSTest12CH Telemetry OFF Mode

Status	LINK LED
Start	Orange Solid

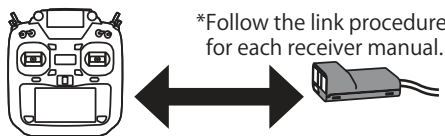
How to Dual Rx Link

- 1 Install two receivers on the aircraft as shown in the connection example.
- 2 Link the two receivers using the dual receiver feature of the transmitter.

For systems without dual receiver capability, link each receiver in turn.

Transmitter in link mode

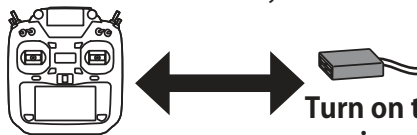
For FASSTest 26/18CH Select dual mode and link primary



Turn on the main receiver and link

Transmitter in link mode

For FASSTest 26/18CH Select dual mode and link secondary



*In the case of FASSTest 26CH, it is possible to link with three receivers. In that case, select "Triple".

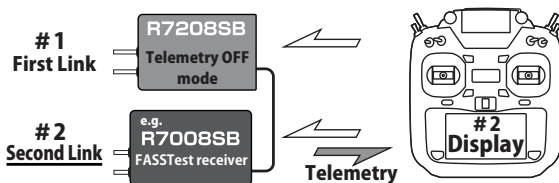
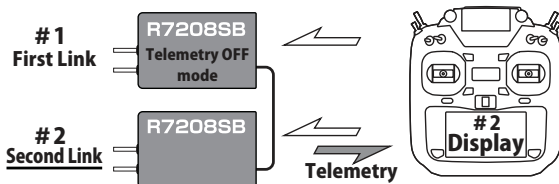
◆ About telemetry system

When using the dual receiver function

- The telemetry function of the main receiver can be used
- Sub-receiver telemetry function is not available

Telemetry for FASSTest12CH

In FASSTest12CH mode, after linking R7208SB in telemetry OFF mode, link the receiver you want telemetry to. (The transmitter will show the telemetry of the last linked transmitter.)

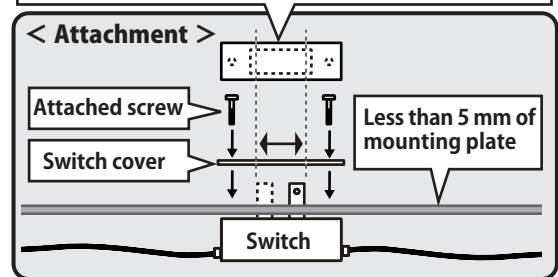


- #2 Telemetry display of second-linked receiver.
- #1 Telemetry OFF first-Linked receiver.

Receiver Switch ESW-1J

ESW-1J connects a Futaba receiver to a battery and is turned on and off in an FET circuit. Compared to using a mechanical switch, it allows more current to be sent with less loss.

Use the mounting plate from the receiver on/off switch as a template for the cutout and screw holes. Mount the switch on the side of the fuselage opposite the engine exhaust, and where it won't be inadvertently turned on or off during handling or storage. Be certain the switch moves without restriction and "snaps" from ON to OFF, and that the cutout allows full motion of the switch in both directions.



⚠ WARNING

When the model is not being used, always remove or disconnect the battery.

- When the switch is off, a slight amount of current still flows. Unless the switch and battery are disconnected, the battery will be damaged from excessive discharge.

Always make sure that the switch harness is firmly attached to the fuselage of the model.

- There is the danger of loss of control and crashing if the connector is disconnected by vibration and shock.

Do not charge the receiver battery through the switch harness. Disconnect the receiver battery and charge to the manufactures instructions.

- There is no charge connector in this switch.

Never reverse the battery polarity.

- Reverse connection will immediately destroy the receiver, servo, etc.

Ensure that the unit is mounted in an area that will eliminate exposure to fuel, water and vibration.

- As with any electronic components, proper precautions are urged to prolong the life and increase the performance of the ESW-1J.

Allow a slight amount of slack in the cables and fasten them at a suitable location to prevent any damage from vibration during flight.

Never solder the ESW-1J or attempt to repair, deform, modify or disassemble them.

Do not use the ESW-1J with anything other than an R/C model.

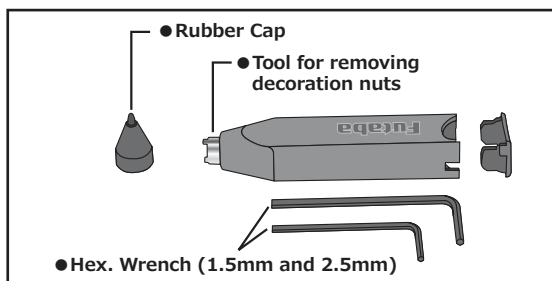
Servo (Option)

Purchase servos appropriate for their intended use.

*Analog servos may not be used when operating in the FASSTest 12CH mode.

When operating in the FASSTest12CH mode use digital servos, this includes all brushless and S.BUS servos.

Toolbox



A special toolbox is included with your T32MZ-WC. This allows you to make all of the mechanical adjustments that may be needed.

Hexagonal wrench (1.5 mm and 2.5 mm)

These wrenches are for adjustment of sticks and replacement of the switches.

Tool for removing switch nuts.

This is used when changing or replacing switches.

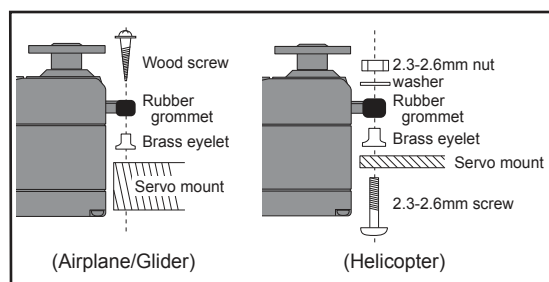
Stylus pen

A rubber cap is attached to the stylus pen/toolbox. You may use this stylus with rubber cap when operating the touch panel. The stylus allows more precise operation than fingers without fear of damaging the panels surface.



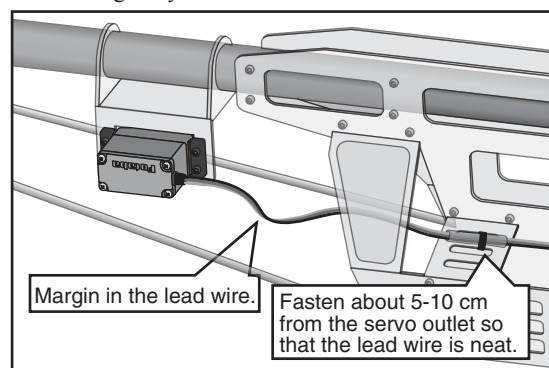
Safety precautions when you install receiver and servos

Mounting the Servo



Servo lead wires

To prevent the servo lead cable from being broken by vibration during flight, provide a little slack in the cable and fasten it at suitable points. Periodically check the cable during daily maintenance.



⚠ WARNING

Connecting connectors

❗ Be sure to insert the connector until it stops at the deepest point.

How to protect the receiver from vibration and water

❗ Wrap the receiver with something soft such as foam rubber to avoid vibration. If there is a chance of it getting wet, put the receiver in a waterproof bag or balloon to avoid water.

Receiver's antenna

⚠ Never cut the receiver's antenna. Do not bind the receiver's antenna with the cables for servos.

❗ Locate the receiver's antenna as far as possible from metals or carbon fiber components such as frames, cables, etc.

■ Cutting or binding the receiver's antenna will reduce the radio reception sensitivity and range, and may cause a crash.

Servo throw

❗ Adjust your system so that pushrods will not bind or sag when operating the servos to the full extent.

■ If excessive force is continuously applied to a servo, the servo could be damaged due to force on the gear train and/or power consumption causing rapid battery drain.

Mounting servos

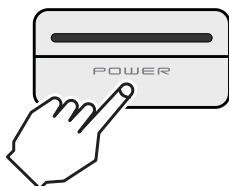
❗ Use a vibration-proof rubber (such as rubber grommet) under a servo when mounting the servo on a servo mount. And be sure that the servo cases do not touch directly to the metal parts such as servo mount.

■ If the servo case contacts the airframe directly, vibration will travel to and possibly damage the servo.

BASIC OPERATION

How to turn ON/OFF the power of the transmitter

Windows® Embedded Compact 7 is installed as a built-in operating system in the T32MZ-WC transmitter. Compared to the conventional system, the T32MZ-WC takes extra time for internal processing when it is turned on/off.



The center switch is pushed.

When turning on the power of the transmitter

1. Place the throttle stick below 1/3 closed.
2. Turn on the power switch.
 - *After initialization of the transmitter is complete, the LED monitor turns Purple.
 - *If your throttle stick is not at 1/3 closed or fully closed, a warning will sound. If you move the throttle to 1/3 closed or fully closed, the warning will stop and will become a "Transmit ?" screen.
 - *If you push the button "NO", then the transmitter will not emit radio waves.
 - *If you push the button "Yes", then the transmitter will emit radio waves.
 - *If a battery is removed and it re-connects, please switch on a power supply, after 3 seconds or more pass.

Start-up time;

The time required to initialize the internal circuit of the transmitter varies between the previous time you turned the power off and then restarted the transmitter. There are two "start up" modes for your transmitter, see below:

Cold start;

If you turn on the transmitter more than four hours after you last turned it off, the mode is "Cold start". "Cold start" is normal for the first initial power up of the day. It will take about 30 seconds to be ready for use, as it takes time to initialize the internal circuit of the transmitter.

Hot start;

If you turn on the transmitter less than four hours after you last turned it off, the mode is "Hot start". Since initialization has been partly completed, the transmitter will be ready to use in several seconds. Since initialization has been partly completed, the transmitter will be ready to use in several seconds. "Hot start" takes place usually at a second flight or later flight in the day.

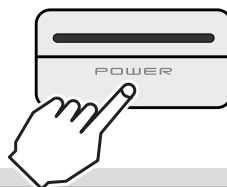
⚠ WARNING

⚠ Once you turn on the power, never shut off the power switch until the power becomes stable (or until the first screen shows up). If you turn off the power switch while the transmitter is going through the initialization process, the data could be damaged.

Note: The start-up time may be a little bit slower when the microSD card is installed compared to when the card is not.

How to stop the transmitter

Turn off the power switch of the transmitter. The internal circuit of the transmitter starts the shut down process including saving the set-up data.



Push and hold the center switch.

⚠ Once you turn off the power, never operate the power switch until the power shutdown process is fully completed. If you turn on the power switch again while the transmitter is still in the process of power shutdown, the data could be damaged.

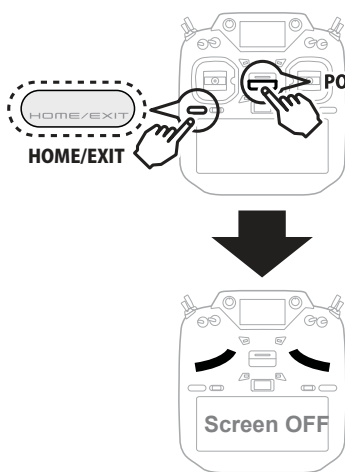
How to reset software

If the screen freezes for some reason and you cannot edit, the transmitter power supply is not fully off even if you turn OFF the power switch. You will need to remove the battery and reinsert it again. In this case, the power restarts in "Cold mode". Even though the screen freezes, all the other functions for radio control operation remain operative.

Quick start

This "screen off" can quick start next startup. This is convenient when turning on and off frequently. No RF output at "screen off". Also, there is no screen display. However, the battery is consumed because the internal circuit is activated.

Be sure to turn off the receiver first.



While holding down the HOME / EXIT button, turn off the power switch.

Screen off mode.

Turn ON → Quick start

⚠ WARNING

⚠ While in screen off mode, it consumes about 4% of the battery per hour. If you do not use the transmitter for a long time, turn off the power.

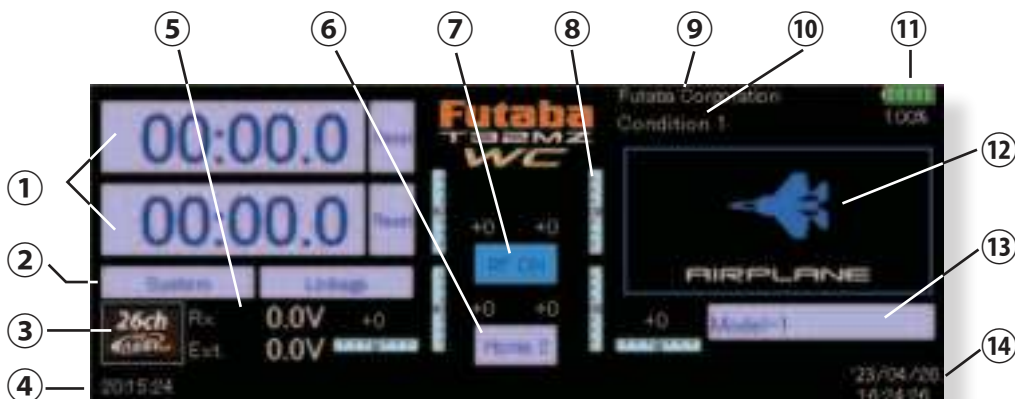
⚠ Updates cannot be performed in screen off mode. To update, turn off the power.

Home screen

This is the Home screen and descriptions of its menus. Use your finger or included stylus pen to operate the touch screen.

<p>① Timer</p> <p>If one of two timer displays is pushed, you will enter the Timer screen of a Linkage menu.</p> <p>In the button mode of a timer set, it can also be made a start/stop.</p> <p>A push on reset will reset a time.</p>	<p>⑨ User's name</p> <p>Push this area to enter the User's Name Setting screen.</p>
<p>② Menu Button</p> <ul style="list-style-type: none"> • System menu • Linkage menu 	<p>⑩ Condition</p> <p>The condition name that is currently used is displayed here.</p> <ul style="list-style-type: none"> • Push this area to enter the Condition Select screen.
<p>③ System Selection</p> <ul style="list-style-type: none"> • FASSTest26CH • FASSTest18CH • FASSTest12CH • FASST MULTI • FASST 7CH • S-FHSS • T-FHSS 	<p>⑪ Battery Indicator</p> <ul style="list-style-type: none"> • When the remaining battery reaches 10%, the alarm will beep. Land your aircraft immediately.
<p>④ System timer/Reset</p> <ul style="list-style-type: none"> • This shows the total accumulated time used for the transmitter. This can be reset. <p>(Hour):(Minute):(Second)</p> <p>Push this area to reset the timer.</p>	<p>⑫ Menu Button</p> <ul style="list-style-type: none"> • Model menu
<p>⑤ Voltage of Rx/Ext battery</p> <p>Information from the receiver is displayed when using a bidirectional system.</p> <p>FASSTest/T-FHSS Only.</p>	<p>⑬ Model Name</p> <p>The model name that is currently used is displayed here.</p> <ul style="list-style-type: none"> • Push this area to enter the Model Select screen.
<p>⑥ Home2</p> <p>A timer and Telemetry data change to Home2 screen by which it was indicated by expansion.</p>	<p>⑭ Clock</p> <p>This shows the today's date and the current time.</p> <ul style="list-style-type: none"> • Push this area for the Date & Time Setting screen.
<p>⑦ RF Indicator</p> <p>"ON AIR" or "RF OFF"</p>	<p>⚠ WARNING</p> <ul style="list-style-type: none"> ❗ Be sure to confirm the model name before flying your aircraft. ❗ Check the remaining battery as often as possible and try to charge the battery regularly. If the battery alarm sounds and its warning symbol is displayed, land your aircraft immediately.
<p>⑧ Digital trim (T1 to T6)</p> <p>Push this area to enter the Dial Monitor screen.</p>	

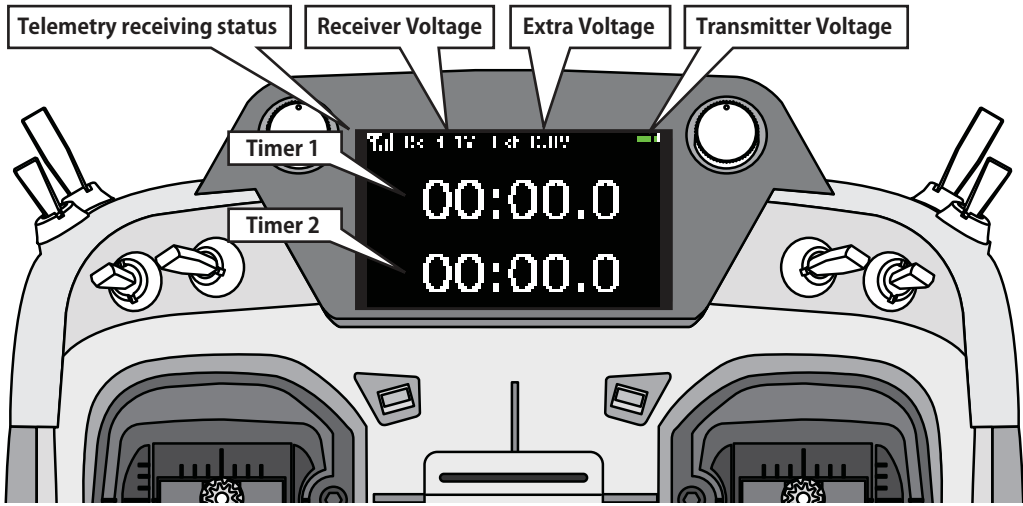
*Please note that the screens in this manual may differ slightly from the actual transmitter.



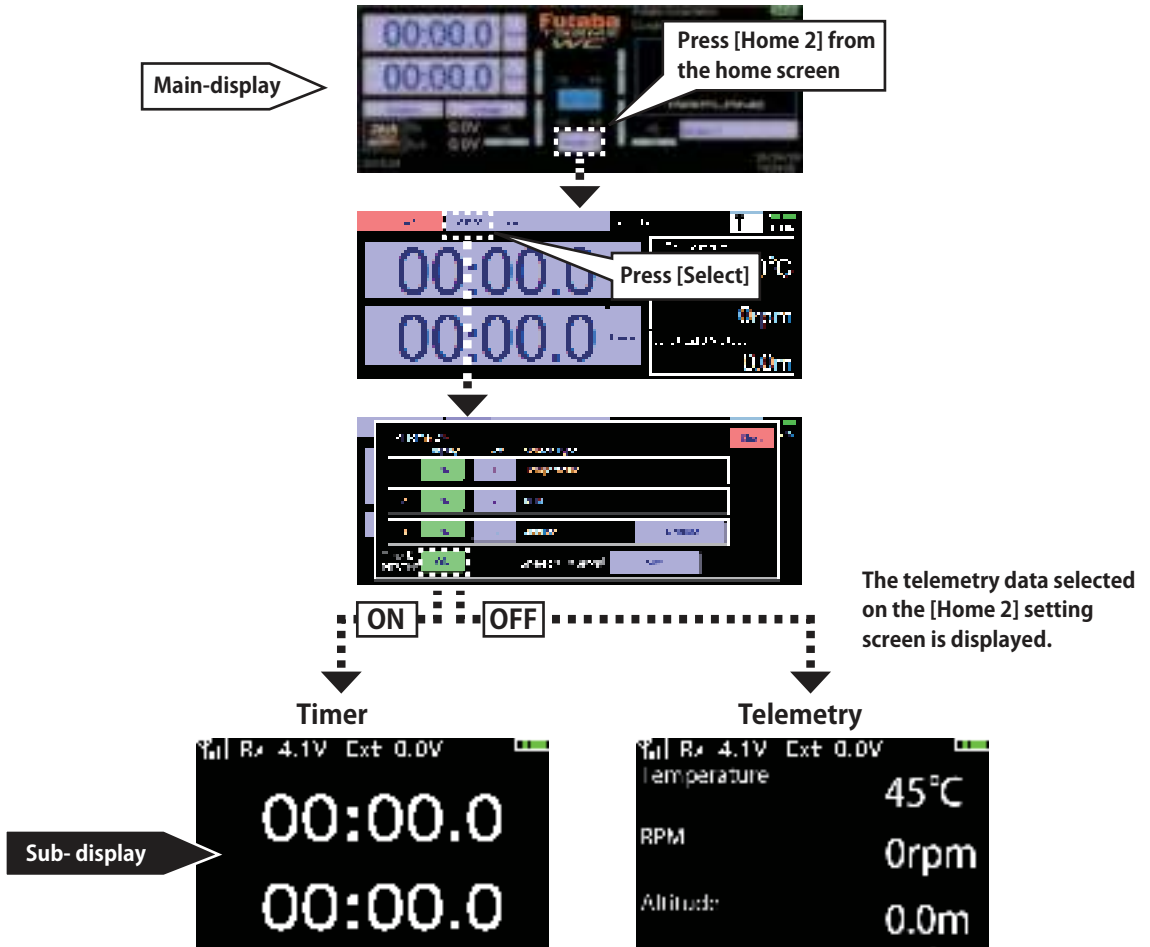
Sub-Display

The sub-display can display timer or telemetry data.

(The sub display is not a touch panel. The setting operation is performed on the main display.)



How to display telemetry information



Link procedure (T32MZ-WC ↔ R7208SB)

Each transmitter and each model data has an individually assigned, unique ID code. In order to start operation, the receiver must be linked with the ID code of the transmitter to which it is being paired. Once the link is made, the ID code is stored in the receiver and no further linking is necessary unless the receiver is to be used with another transmitter. When you purchase additional R7208SB receivers, and when adding new model data, this procedure is necessary; otherwise the receiver will not work.

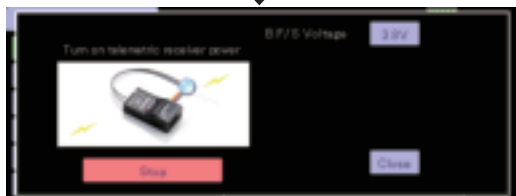
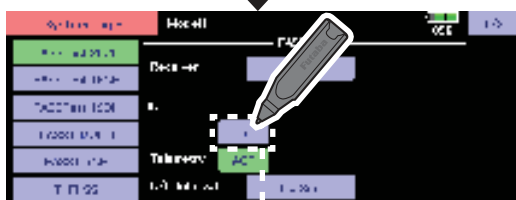
Linking method (T32MZ-WC ↔ R7208SB)

1. Bring the receiver to be linked to within 50 cm of the transmitter.

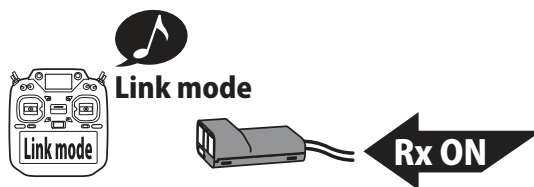


2. Transmitter in link mode.

HOME Screen



3. The transmitter emits a chime sound and enters the link mode.
4. The receiver power is immediately turned on. About 2 seconds after the power is turned on the receiver enters the linking state. (Receiver linking time is about 1 second).



5. If linking is successful, the receiver LED changes from red to green, the link mode ends, and the receiver ID code is displayed.
6. If linking fails, an error message is displayed. Bring the transmitter closer to the receiver and repeat the procedure above from step 2.

* Do not perform the linking operation when the drive motor is connected or the engine is running.

* When you use two receivers, please be sure to setup a "primary" and "secondary" in the "dual" mode.

* Since two sets of receivers cannot be individually recognized without using a "primary" and "secondary" setup, it is impossible to receive telemetry data correctly.

* You must link one receiver at a time. If both power supplies to the receivers are switched on simultaneously, data is received incorrectly by the transmitter.

* A telemetry function cannot be used for the 2nd receiver.

* Only FASSTest26CH can be linked with 3 receivers. In that case, select "Triple".

* Link is required when a system type is changed.

* Link is required when a new model is made from a model selection.

⚠ WARNING

⚠ Do not perform the linking operation when the drive motor is connected and the engine was started.

■ Inadvertent rotation of the motor or acceleration of the engine is extremely dangerous.

ⓘ Once the link operation is complete, please check that your receiver can be operated with the linked transmitter.

ⓘ Check operation sufficiently before flying after linking.

■ If the same receiver is sending in the vicinity, there is the danger that the transmitter may be linked with that receiver.

⚠ CAUTION

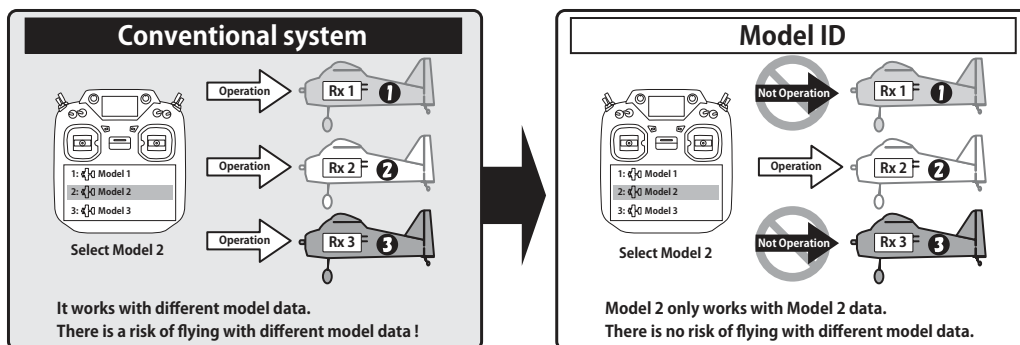
ⓘ Always turn on the transmitter power after linking is complete.

ⓘ When pairing with the transmitter, be sure that a previously linked transmitter is not transmitting.

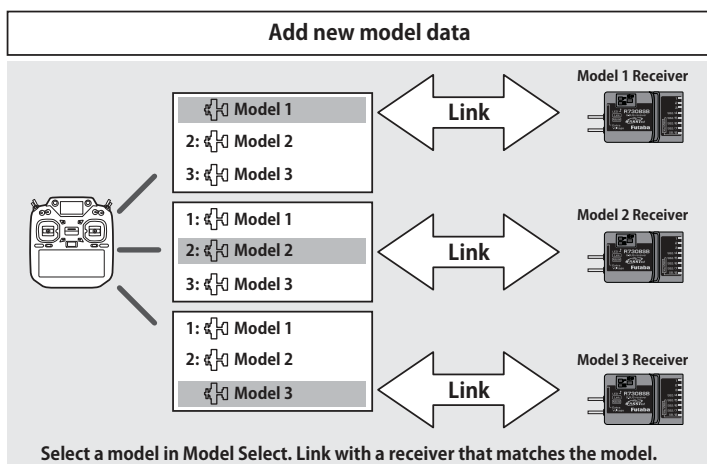
Model ID

FASSTest, T-FHSS

For the sake of safety, this function does not operate the receiver if the model data of the model program settings that does not match the aircraft is used by mistake.



Link is required when a new model is made from a model selection.



- In the system types (FASSTest, T-FHSS) compatible with the model ID function, a unique ID number (model ID) is set to each model data. Linking with a receiver stores the model ID of the model data in that receiver. The receiver operates only when it receives radio waves transmitted using model data that matches the stored model ID. As a result, the receiver does not operate even if model data of an unintended setting is used by mistake, so it is possible to prevent a malfunction due to a model selection mistake.
- If you want to use different model data from the model data that you have been using, link again.
- Model ID feature is enabled only if the system type is FASSTest or T-FHSS. Please note that model ID function can not be used on other systems.
- For safety reasons, model ID function can not be disabled.
- Model data that can be stored in internal memory is up to 250 models.
- Model ID is automatically set when copying or adding model data.

When using R3004SB

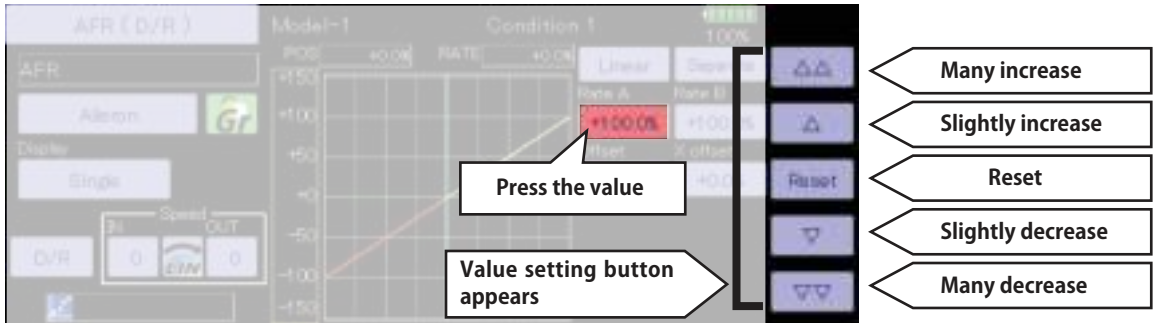
- When using the R3004SB, set "Receiver" in the system type screen T-FHSS mode setting to [R3004SB].
When using other T-FHSS compatible receivers, set "Receiver" to [Normal].



⚠ R3004SB receiver does not support model ID function.

How to change the number of value

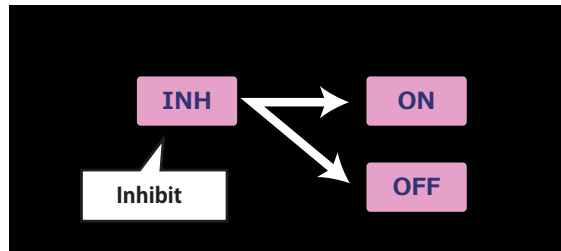
When the button indicating the value of each function is pressed, the value setting button appears at the right end of the screen.



How to activate the function

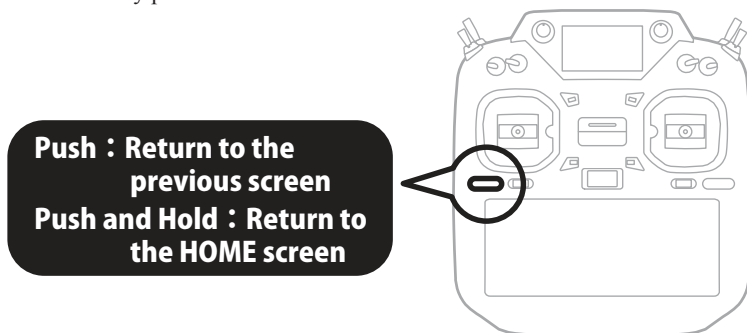
When the INH button is pressed, the function turns ON or OFF and the function is enabled.

INH indicates that the function is disabled.



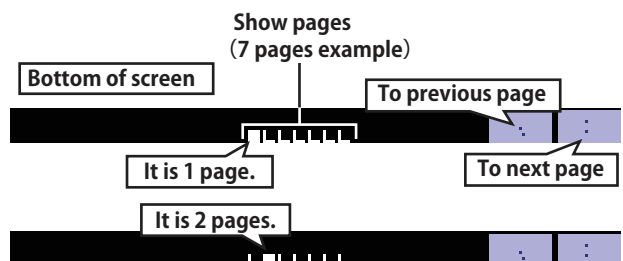
How to return to home screen or go back one step

When you press the HOME/EXIT button from each screen (other than the home screen), you will return to the previous screen. You can return to the HOME screen by push and hold the HOME/EXIT button.



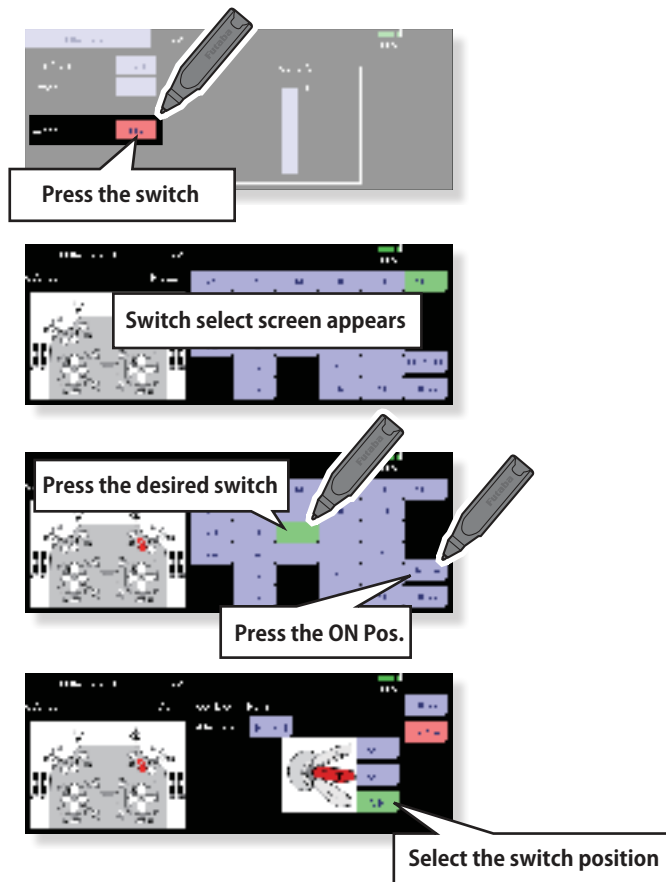
Page of each setting screen

It is a notation when there are several pages of functions.



Switch selection

Select the switch to operate the function.



Display of operation status

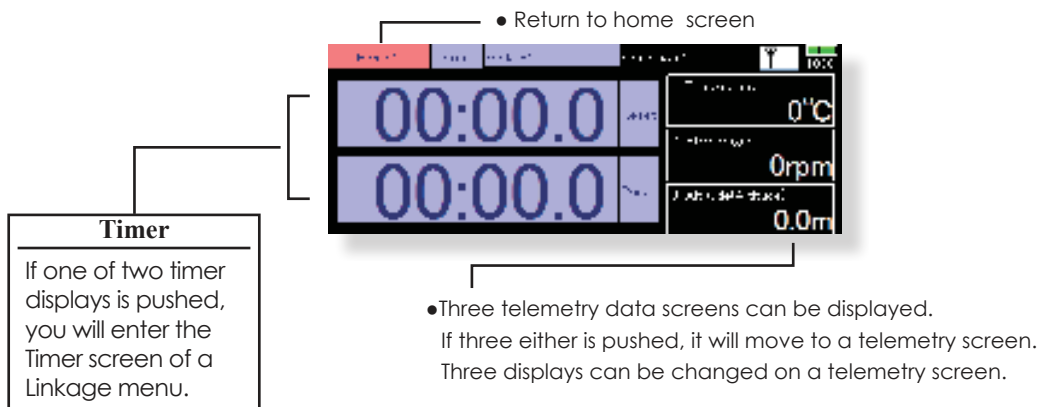
A message is displayed for 5 seconds when the switch (stick, knob, slide lever) that operates the function is operated.



A message is displayed when the function is turned ON/OFF. It is displayed for 5 seconds from the time of operation.

Home2 screen

If [Home2] is pushed, it will become the display to which the timer and the telemetry data were expanded.



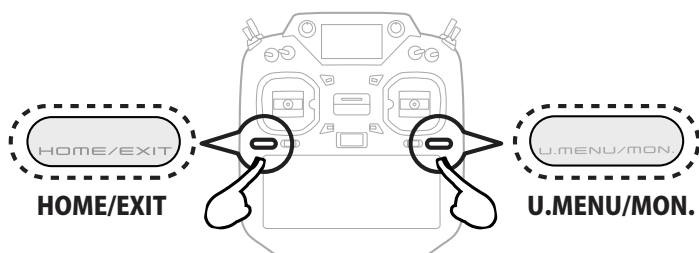
Panel lock

Temporarily activating this function makes it impossible to change data by mistakenly touching keys during flight.

Please perform a touch-panel lock for safety. Touch screen in [System Menu] → [Display] other than the following has an automatic setup.

Start-up lock: It becomes a panel lock at the time of the power supply ON.

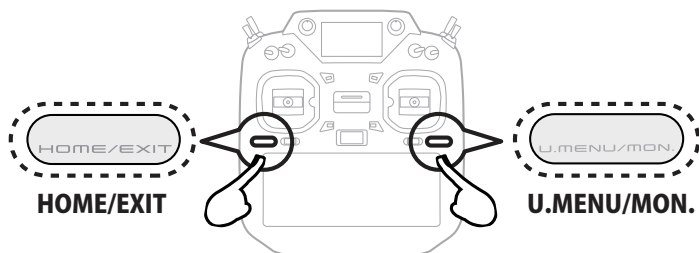
Automatic lock: It synchronizes with Backlight decrease time and becomes a panel lock.



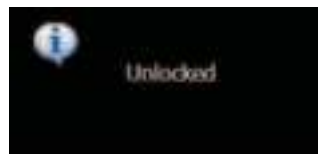
Lock by simultaneous pressing



• If the touch panel is touched while locked, this display appears and touch panel operation can not be performed.



Unlock by simultaneous pressing



⚠ DANGER

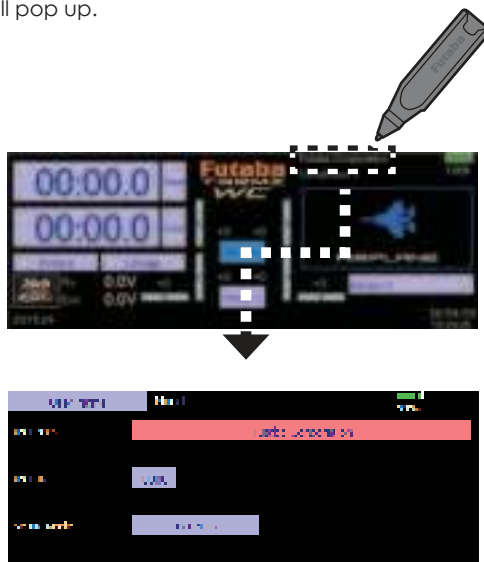
❗ The T32MZ-WC touch screen is very sensitive. To avoid accidentally activating it during a flight, it is suggested that it be locked. Due to the touch screen's sensitivity, allowing it to be touched during flight by a neck strap hook, servo extension, or even your hand could be dangerous. Please use the touch panel lock for added safety during flight.

Registration of the user's name

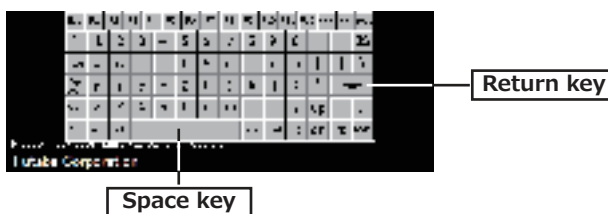
T32MZ-WC transmitter can register user's name.

How to register user's name

1. Turn on the power of the transmitter.
2. Push the area of the user's name shown on the home screen or the "user's name" in the system menu. Then the User's Name Set screen will pop up.



3. Push the user's name. Then the keyboard will pop up. You can use up to 32 characters as a user's name. Use the keyboard on the screen to enter user's name.



4. Push "Return" key to return to the previous screen after entering the user's name.

(If you want to protect the user's name)

If you don't want anybody else to change your user's name, set your ID in the following way.

*Please be aware that you will not be able to change user's name if you forget your password.

1. Make sure that the security mode is "User's name", and then push the User ID button.
2. Enter your password, using keyboard on the screen. You will need to enter your password for changing the user's name, the next time you turn on the power.

*Even if you enter the same character, your password will be identified differently depending on whether you are using "Transform" mode or "Direct" mode for inputting.

UPDATING

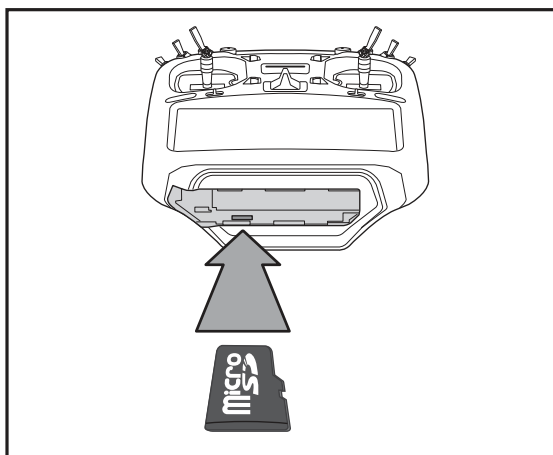
Your Futaba T32MZ-WC transmitter programming can be updated easily and at no cost online. When functions are added or improved, the update file can be downloaded from our website. Copy the update files to the microSD card and then use the following procedure to update the program.

Check our web site for the FAQ regarding updating for more information.

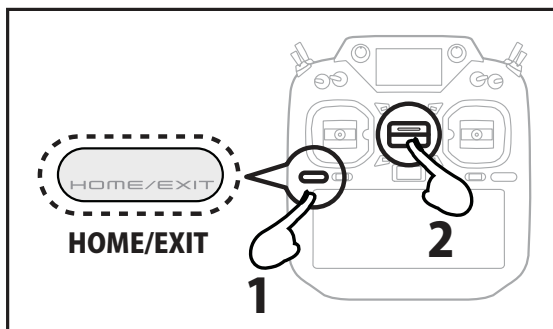
Updating procedure

Note: If the battery fully discharges during program updating, updating will fail. When the remaining battery capacity is 50% or less, always recharge the battery before updating.

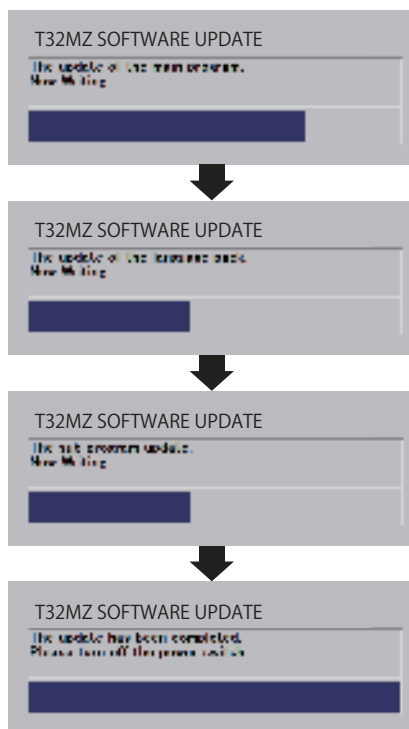
Note: The model data in the transmitter can be used unchanged after updating, but to be safe, back up the model data before updating.



1. Insert the microSD card containing the update file into the card slot.



2. Press the HOME/EXIT button first. AND next turn on the transmitter power. An update screen is displayed.



If a problem occurs, an error message will appear and the update will not be complete.

After the updating above has been completed, turn on the power and then check the system program version at the system menu information screen.

SPECIFICATIONS

(Specifications and ratings are subject to change without notice.)

Your 32MZ -WC(packaged with an S.BUS receiver) includes the following components:

- **T32MZ-WC Transmitter**
- **R7208SB, R7308SB, R7214SB Receiver, or Receiver-less**
(The receiver that comes with the product differs depending on the region where you use it, so please check the receiver you are using.)
- **LT1F6600B Lithium-polymer battery & AC adapter**
- **Switch harness**
- **Tool Box (includes special jig for adjustment)**
- **Neck strap**
- **Transmitter case**

The set contents depend on the type of set.

Transmitter T32MZ-WC

Operating system: 2-stick, 26 channels, FASSTest/FASST/S-FHSS/T-FHSS system

Frequency band: 2.4 GHz

RF power output : 100 mW EIRP

Power supply: 3.8 V LT1F6600B Li-polymer battery

Receiver R7208SB/ R7308SB

FASSTest-2.4 GHz system(26 ch/18 ch/12 ch mode)

S.BUS2 and S.BUS port and 8 channels for conventional system receiver

- Dual antenna diversity
- Size: 0.98 x 1.53 x 0.56 in. (24.9 x 38.8 x 14.3 mm)
- Weight: 0.35 oz. (9.9 g) R7208SB/ 0.39 oz. (11.0g) R7308SB
- Power requirement: 3.7 V to 7.4 V(Voltage range: 3.5 V to 8.4 V)
- RF power output: 25 mW EIRP
- Battery F/S Voltage: set up via transmitter
- Extra Voltage port: 0 ~ 70 V DC

Receiver R7214SB

FASSTest-2.4 GHz system(26 ch/18 ch/12 ch mode)

S.BUS2 and S.BUS port and 14 channels for conventional system receiver

- Dual antenna diversity
- Size: 1.46 x 1.98 x 0.63 in. (37.0 x 50.2 x 15.9 mm)
- Weight: 0.67 oz. (19 g)
- Power requirement: 3.7 V to 7.4 V(Voltage range: 3.5 V to 8.4 V)
- RF power output: 25 mW EIRP
- Battery F/S Voltage: set up via transmitter
- Extra Voltage port: 0 ~ 70 V DC

Compatibility of FASSTest26CH with receivers :

FASSTest26CH compatible receivers

- R7208SB/R7308SB (V2.0~)
- R7206SB/R7306SB (V1.0~)
- R7214SB/R7314SB (V1.0~)

***FASSTest26CH cannot be used with receivers other than compatible models.**

*FASSTest26CH cannot be used with R7208SB/R7308SB (V1.0) released before December 2023. (Available with Ver.UP)

*All FASSTest receivers released after December 2023 will be compatible with FASSTest26CH.

About FASSTest26CH S.BUS2 connect and servos :

When using the following servos with the FASSTest26CH system S.BUS2 connect , it is necessary to software version up the servos.

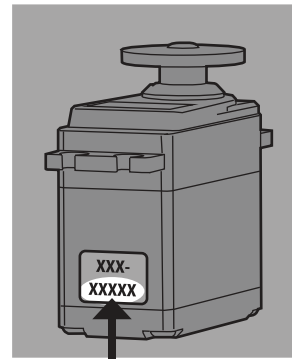
HPS-A703 (Serial number less than 22597)

HPS-AA702 (Serial number less than 20372)

HPS-HC701 (Serial number less than 10910)

HPS-HT700 (Serial number less than 10730)

HPS-H701 (Serial number less than 10361)



Serial number

Servos other than those listed here can be used as is.

Updating requires a PC that can connect to the Internet and Futaba CIU-3. Refer to Futaba homepage for update software and update method.

<https://www.rc.futaba.co.jp>

<https://futabausa.com>

The FASSTest 26CH mode is a new system that is ideal for those who need more channels, such as on large models. When using a conventional system (T-FHSS, FASSTest18CH, etc.), the above servos can be used as is without updating. FASSTest 26CH and PWM connections do not require servos updates.

FUTABA CORPORATION

Hobby Radio Control Business Center Sales & Marketing Department
1080 Yabutsuka, Chosei-mura, Chosei-gun, Chiba-ken, 299-4395, Japan
TEL: +81-475-32-6051, FAX: +81-475-32-2915

©FUTABA CORPORATION 2023, 11 (1)