

TACTIC™

PURE RELIABLE 2.4

TTX300

TTX300

2.4GHZ RADIO CONTROL SYSTEM INSTRUCTION MANUAL



SLT™
SECURE LINK TECHNOLOGY

Thank you for making the Tactic TTX300 2.4GHz SLT system your choice for radio control!

This system uses modern 2.4GHz Spread Spectrum technology – an innovation that allows for automatic channel selection and interference-free control of R/C models.



For safe operation and best results, it's strongly recommended to read this manual in its entirety before use! Also read and understand the instructions included with the model. Damage resulting from misuse or modification will void your warranty.

FEATURES

- 2.4GHz Spread Spectrum Technology
- Ergonomic and stylish case design
- Transmitter can bind to multiple receivers
- Tiny, lightweight receiver with internal antenna
- Built-in fail-safe
- Steering and Throttle trim dials
- Steering rate adjustment
- Power LED with low battery warning indication
- Multi-function programmable 3rd channel
- Steering and throttle end point adjustments

TRANSMITTER



Figure 1

The transmitter (Tx) requires 4 “AA” batteries. Non-rechargeable alkaline or rechargeable nickel-cadmium (NiCd) or nickel-metal hydride (NiMH) cells can be used. Do not mix old and new cells, or mix non-rechargeable alkaline cells with rechargeable NiCd or NiMH cells, etc. See the SERVOS AND ACCESSORIES section at the end of this manual for optional rechargeable NiCd and NiMH batteries and chargers. Note the TTX300 transmitter does not include a charge jack for rechargeable cells. A separate “AA” cell charger will be necessary.



IMPORTANT: Do not operate an R/C model with weak batteries as it could result in reduced range and/or possible loss of control!

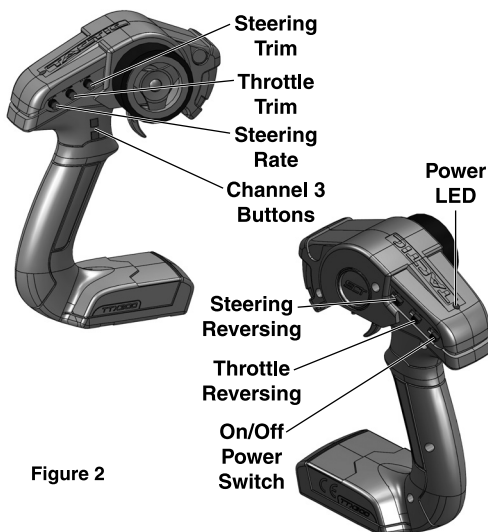


Figure 2

Press the power switch to turn the Tx on (see figure 2). The “POWER” LED should illuminate. If not, turn off the Tx and check the batteries to make sure each cell is firmly in place and in the proper direction. If the Tx LED blinks, the batteries are low on power and should be replaced.

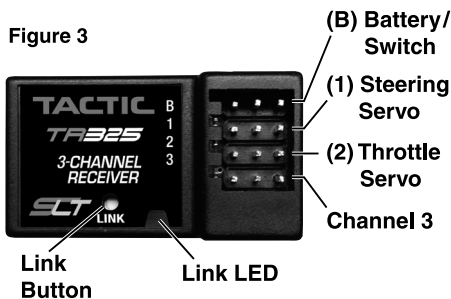
BIND THE RECEIVER TO THE TRANSMITTER

For proper installation and operation of the 2.4GHz transmitter and receiver system, it is necessary to “bind” them together electronically. This ensures sole communication between the two and prevents other transmitters from being able to control the receiver. To bind the Tx and Rx:

1. Turn on the transmitter.
2. Apply power to the receiver (see the INSTALLATION section that follows for how to do this).
3. If the receiver’s LED flashes once and then stays on, the Rx is already bound to the Tx and you can skip to the next section. Otherwise, push and hold the receiver’s “BIND” button until its LED glows red and then turns off after about one second.
4. Release the bind button.
5. If the binding is successful, the LED will flash once and then remain ON.
6. Test for proper Tx / Rx functionality by completing the next section. If it doesn’t seem the radio has bound properly, repeat steps 1-6 above.

INSTALLATION

Receiver: Mount the receiver as specified in your model’s instructions. As a guideline, mount in a secure location using double-sided tape. Route the servo wires so they do not interfere with any moving parts. For boat applications, it’s highly recommended to wrap the receiver in a balloon or enclose it in a water-tight box.



Servos: See the SERVOs AND ACCESSORIES section at the end of this manual for a full list of optional servos. CENTER THE TRIM DIALS on the Tx. Mount the servos inside the model and connect the linkages to the servo using an appropriate length servo arm. Make sure all mechanical linkages are free of obstructions and can move smoothly. Connect the servos to the receiver as shown in Figure 3. Turn the transmitter’s trim dials to finely adjust the servo’s center point as needed to match the installation.

Electronic Speed Control (ESC): If using an electronic speed control, connect it to channel 2 of the receiver (throttle). Center the transmitter’s throttle trim and follow the ESC instructions for programming.

Switch / Battery: It may not be necessary to use the included switch harness and 4-cell battery holder if using an optional electronic speed control (ESC). Check the instructions with your ESC for further information. Otherwise, mount the included switch harness into the model as instructed in the model's manual and insert the switch harness's proper mating plug into the receiver's "BAT" slot (bottom). For off-road environments, it's a good idea to wrap or enclose the switch harness to prevent dirt from entering the switch and causing poor operation. Insert four "AA" alkaline, NiCd, or NiMH batteries in the included 4-cell battery holder (note proper polarity). Connect the battery holder to the switch harness and the switch harness to the BAT slot.

PROGRAMMING

Several of the TTX300 features are adjusted electronically by entering the programming mode. To enter the programming mode, follow these steps:

1. With the transmitter turned off, turn steering wheel full right, pull the trigger to the full throttle position and turn the transmitter's power switch to ON. The LED will flash to confirm when performed correctly.
2. Release the wheel and trigger at this time.

End Point Adjustments

Steering:

1. Enter programming mode.
2. LEFT EPA: Turn wheel FULL COUNTERCLOCKWISE, use 3rd channel push buttons to adjust.
3. RIGHT EPA: Turn wheel FULL CLOCKWISE, use 3rd channel push buttons to adjust.

Throttle:

1. Enter programming mode.
2. THROTTLE EPA: Pull trigger to the FULL THROTTLE position, use 3rd channel push buttons to adjust.
3. BRAKE EPA: Push trigger to the FULL BRAKE position, use 3rd channel push buttons to adjust.

Channel 3:

The TTX300 3rd channel is programmable and offers a wide variety of options to suit many applications. To change the function of the 3rd channel, follow these steps:

REVERSE: Press the two pushbuttons at the same time and power ON the transmitter. The LED will flash one time. After 3 seconds, the LED will flash two times when performed correctly. Release the two pushbuttons.

TWO POSITION SWITCH (DEFAULT): Press and hold the upper pushbutton and power ON transmitter. Continue holding the push button until the LED flashes two times. Release the button. Use the two buttons to output 1000us and 2000us.

THREE POSITION SWITCH: Press and hold the upper pushbutton and power ON transmitter. Continue holding the pushbutton until the LED flashes three times. Three position output is 1000uS, 1500uS and 2000uS.

FOUR POSITION SWITCH: Press and hold the upper pushbutton and power ON transmitter. Continue holding the push button until the LED flashes four times. Release the button. Four position output is 1000uS, 1333uS, 1666uS and 2000uS.

PROPORTIONAL: Press and hold the upper pushbutton and power ON transmitter. Continue holding the push button until the LED flashes five times. Release the button. The push button's output is proportional PPM.

SYSTEM CHECK

Turn on the Tx, then the Rx. Make sure all servos operate according to the movement of the Tx controls (refer to figure 4).

Steering: Turn the steering wheel left and right. Make sure there are no obstructions with the steering servo's movements, and the servo moves in the proper direction. If the steering wheel is turned to the right but the model turns left, reverse the position of the Steering Reversing switch.

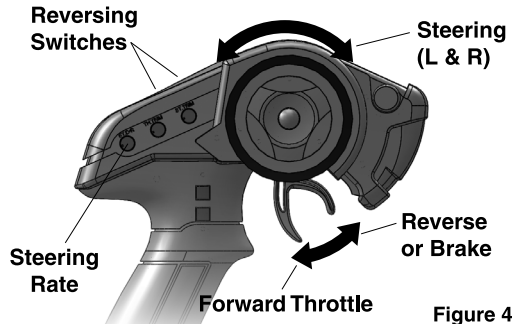


Figure 4

Steering Rate: This dial adjusts the limits that the steering servo can travel on each side. Turning the dial will widen or narrow the steering end points. Adjusting this dial to your preference can help to customize control of steering in different applications.

Throttle: Squeeze the throttle trigger to make the car move forward. If the car moves backwards, reverse the position of the Throttle Reversing switch. (See the model's instruction manual for specific set-up instructions.) Push the trigger forward for reverse or brake function.

Failsafe: This radio system includes a "fail-safe" function, which will automatically center (bring to neutral) all servos if the receiver loses signal communications from the transmitter. When the receiver regains signal it will automatically resume normal function.

Range Check: The "range" or safe operating distance from the Tx to the Rx is typically as far as you can clearly see the model. Before operating the model, perform a simple range check to make sure the transmitter maintains good radio contact with the receiver within your operating area.

SYSTEM CHECK



- **NEVER** allow water or moisture to make contact with the electronic components inside the transmitter, receiver, servos, switch harness, etc.! This could lead to failure or improper functionality of components and poor control of vehicle which could pose a safety hazard.
- **NEVER** operate R/C equipment if you are physically impaired as it could pose a safety hazard to yourself or others in the area.
- **NEVER** allow small children to operate/control model R/C equipment without the supervision of an adult.
- **NEVER** allow the transmitter's throttle trigger to accidentally be moved away from the neutral position while the vehicle is powered up.
- **ALWAYS** range check the radio system before use.
- **ALWAYS** make sure that all transmitter movements operate all servos properly in the model.
- Do not store your radio equipment in extremely hot or cold locations, in direct sunlight, or in locations with high humidity. Store R/C equipment in a cool and dry location.
- Do not allow chemicals to come in contact with any parts of the radio system. Substances such as glow fuel, gasoline, CA glue, etc. could permanently damage plastic parts of the radio system.
- If rechargeable batteries were installed in the transmitter, remove the batteries before placing the radio in long-term storage.

TROUBLESHOOTING

RANGE IS SHORT: Interference – *check Rx installation and servo connections.* Low Tx or Rx battery – *replace the batteries or recharge if applicable.* Crash damage – *send the radio to Hobby Services for repair.*

RUNTIME IS SHORT: Low Tx or Rx batteries – *replace the batteries.* Obstructed servo linkages causing excess battery drain – *free the linkages/pushrods.*

Tx POWER SWITCH ON BUT SERVOS DO NOT FUNCTION: Tx or Rx batteries are low or – *replace the batteries or check Tx or Rx battery polarity.* Switch harness or ESC is connected incorrectly – *check all connections and the ESC instruction manual.* Rx is not binded to the Tx properly – *perform binding process again.* Rx antenna located too closely to engine, motor, servos or other moving mechanical parts which might be creating unwanted electrical noise – *relocate the Rx inside the model or relocate the ESC.*

INTERFERENCE OR SERVOS GLITCHING: Out of range – *operate the model more closely to the transmitter.* Outside radio interference (pagers, strong industrial or other commercial transmitters in the area) – *check your local R/C club for confirmation of dangerous/interfering frequencies in your area.*

CONTROL SURFACE MOVES IN THE WRONG DIRECTION: Change the position of that channel's reversing switch.

ONLY ONE SERVO GLITCHES: Servo is bad – *replace the servo or send to Hobby Services for repair.*

Contact Hobby Services for other problems.

TTX300 SPECIFICATIONS

TRANSMITTER

Channels: 3

Frequencies: 2.403-2.480GHz

Protocol: Tactic SLT

Modulation: FHSS spread spectrum

Input Power: 3.40-7.00V DC, four 1.5V alkaline or 1.2V NiCd/NiMH "AA" single cells.

Power On Indicator: red LED

RECEIVER

Channels: 3

Receiving Frequencies: 2.403-2.480GHz

Modulation: FHSS spread spectrum

Input Power: 3.40 - 7.00V DC, four "AA" alkaline, NiCd or NiMH cells

Dimensions: .75 x .55 x 1.4"
(19 x 14 x 35 mm)

Weight: 18 oz (5.2 g)

SERVO AND ACCESSORIES

Stock #	Description
TACM0235	TSX35 Standard Servo Sport
TACM0240	TSX40 Standard Servo High Speed MG 2BB
TACM0245	TSX45 Standard Servo High Torque MG 2BB
TACM0247	TSX47 Standard Servo Digital High Torq MG 2BB
TACM0255	TSX55 Standard Servo Ultra Torque MG 2BB
TACM0257	TSX57 Standard Servo Digital Ultra Torq MG 2BB
TACM0265	TSX65 Std Servo Digital Ultra Torq High Volt MG 2BB
TACM2000	Switch Harness FUT J Conn No Charge Lead
TACM2001	Switch Harness w/Charge Lead Futaba J
TACM2002	Switch Harness w/Charge Plug Universal
TACM2020	4 Cell AA Battery Holder w/Fut J Connector
TACM2090	Servo Extension 6" (150mm) Futaba J
TACM2091	Servo Extension 6" (150mm) Futaba J (10)
TACM2092	Servo Extension 6" (150mm) Universal
TACM2093	Servo Extension 12" (300mm) Futaba J
DTXP4704	Onyx AA Alkaline Battery (4)
DTXP4191	Onyx 110 AC/DC Peak Charger
DTXP4235	Onyx 235 AC/DC Advanced Charger with Balancing
DTXP4245	Onyx 245 AC/DC Dual Charger with Balancing
DTXP4615	Power Kit w/ 1500mAh NiMH, AC Wall Charger, 8 "AA" Alkalines
DTXC3164	Onyx 1/10th 3930kV Brushless System
DTXC3165	Onyx 1/10th 4420kV Brushless System
DTXC3166	Onyx 1/10th 5900kV Brushless System
DTXC3172	Onyx 1/10th 3650kV Short Course Brushless System
DTXC3174	Onyx 1/10th 4550kV Short Course Brushless System

FCC STATEMENT

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions.



- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Rf Radiated Exposure Statement: The equipment complies with FCC Rf radiation exposure limits set forth for an uncontrolled environment.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CE COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

INSTRUCTIONS FOR DISPOSAL OF WASTE EQUIPMENT BY PRIVATE USERS IN THE EUROPEAN UNION:

This symbol on the product or its packaging indicates this product must not be disposed of with other household waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or location where you purchased the product.



DECLARATION OF CONFORMITY:

Product: Tactic TTX300 2.4GHz 3-Channel Pistol Tx Rx
Item number: TACJ0300
Equipment class: 1



TACTIC TTX300 TRANSMITTER AND TACTIC TR325 RECEIVER:

The objects of the declaration described here are in conformity with article 3.1(a) the requirements of safety contained in the European 2006/95/EC Directive and article 3.1(b) the requirements of EMC contained in Directive 2004/108/EC and article 3.2 requirements of radio equipment in Directive 1999/5/EC.

EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011
ETSI EN 300 328 V1.8.1
ETSI EN 301 489-1 V1.9.2 (2011-09)
ETSI EN 301 489-17 V2.2.1 (2012-09)
ETSI EN 62311:2008

Tactic
c/o Hobbico, Inc.
2904 Research Road
Champaign, IL USA 61826

US standard: FCC 15.247
Japan standard: ARIB STD-T66
Canada standard: RSS210&RSS GEN
Product name: TTX300
Product type: TACJ0300
Brand: Tactic

INDUSTRY CANADA NOTICE

This device complies with Industry Canada license-exempt RSS standard(s).
1. 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. 2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet appareil numérique ne dépasse pas les Rèlements sur l'interférence radio par un appareil numérique de classe B stipulées dans les Règlement sur l'interférence radio d'industrie Canada.

2. Les changements ou modifications de cette unité non expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur à utiliser l'équipement.

IC RF Déclaration sur la radioexposition:

Cet appareil est conforme avec l'exposition aux radiations IC Définies pour un environnement non contrôlé. Les utilisateurs finaux doivent suivre les instructions de fonctionnement spécifiques pour satisfaire la conformité aux expositions RF.

WARRANTY AND REPAIR

1-YEAR LIMITED WARRANTY

Tactic warrants this product to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. During that period, Tactic will, at its option, repair or replace without service charge any product deemed defective due to those causes. You will be required to provide proof of purchase (invoice or receipt). This warranty does not cover damage caused by abuse, misuse, alteration or accident. If there is damage stemming from these causes within the stated warranty period, Tactic will, at its option, repair or replace it for a service charge not greater than 50% of its then current retail list price. Be sure to include your daytime telephone number or e-mail address in case we need to contact you about your repair. This warranty gives you specific rights. You may have other rights, which vary from state to state.

For service on your Tactic product, send it post paid and insured to:

HOBBY SERVICES

3002 N. Apollo Dr., Suite 1
Champaign, IL 61822

Tel: (217) 398-0007

(9:00am - 5:00pm CST, M-F)

E-mail: hobbyservices@hobbico.com

*For warranty and service information if purchased outside the U.S.A. or Canada, ask your retailer for more information.

In the European Union, send it postpaid and insured to:

Service Abteilung Revell GmbH

Henschelstrasse 20-30
32257 Bünde Germany

Tel: 01805-110111 (nur für Deutschland)

E-mail: Hobbico-Service@Revell.de

Distributed in the EU by Revell GmbH, Bünde Germany

- This product is suitable only for people of 14 years and older. This is not a toy!
- **WARNING: CHOKING HAZARD** - May contain small parts. Keep away from children under 3 years. Please retain packaging for future reference.
- 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.
- Tactic is not responsible for the use of this product.



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FCC ID: IYFTTX300

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Made in China

TACJ0300 v1