

TACTIC™ TTX650

Tx-R™
TRANSMITTER-READY

POWERFUL, PROGRAMMABLE,
UNDERSTANDABLE, AFFORDABLE...

Times being what they are, \$149.97 doesn't buy you much anymore. That's not the case, however, when you buy a new TACTIC TTX650 transmitter—not at all! The new transmitter is a powerhouse of features and functionality. It's almost hard to believe that you can “score” on this radio for so little.

What you'll get in the TTX650 is a transmitter that weighs just one pound, six ounces, with a set of “AA” batteries installed. You'll also get a unit with digital trims, adjustable control sticks that are precise and friction-free, a clear and easy-to-read liquid crystal display (LCD) screen, as well the transmitter that just feels good in your hands.

The radio is, of course, designed to operate on the 2.4-GHz radio band. It has seven, well-positioned toggle switches; two are three-position, four are two-position, and one is a snap switch that you'd likely use for snap rolls and such. The unit's On/Off switch is well-placed on the front of the radio just above the LCD screen, recessed into the radio's case just enough to keep it out of the way during piloting. Just above the On/Off switch is the neck-strap clasp and above it is the On/Off indicator light, which provides a bright blue glow when the radio is turned on. On top of the radio is the carry handle,



which tilts the radio facedown just a bit when it is being carried.

The battery tray is on the back and bottom of the case. It holds four “AA” batteries or NiCad or NiMH cells. At the bottom and left side of the transmitter is a firmware port, and below it is a charging jack. Finally, to the left and right of the LCD screen are six programming buttons: Servo, Clear, ESC, +/↑, -/↓, and the Enter key. All the keys are very easy

◀ The TTX650 is very ergonomic and lightweight, which means it feels good in your hands, so you feel in control of your model at all times.

and intuitive to use. You will like the layout and positioning of the control sticks as well as the switches. TACTIC has a good design in their 650!

So, here is what you get in the new TACTIC TTX650 radio:



◀ Your Tactic TTX650 six-channel radio comes with four "AA" batteries for power. You can change them out for either NiCads or NiMH cells.

FEATURES

- 20 Model memory
- Easy-to-use programming
- Intuitive menus
- Easy-to-read LCD screen w/ adjustable contrast
- User-selectable switch assignments
- 4 programmable mixes
- 8 pre-programmed mixes
- Airplane and helicopter programming
- Compatible with SLT receivers and Tx-R aircraft
- Quad-bearing gimbals
- Adjustable stick lengths and

tensions

- Wireless trainer system with selectable channels
- Reversing, sub-trim and travel limits on all channels
- Dual rates and exponential (aileron, elevator, rudder)
- Digital trims with slow/fast adjustment
- One up/down timer, one battery timer
- Adjustable, low-voltage alarm
- 4 "AA" alkaline batteries included
- Charge jack for optional NiCd/ NiMH packs
- External antenna that rotates and folds for easy storage

FUNCTIONS

- Model Select
- Model Management
- Trim Settings
- CH5 and CH6 Assignment
- Channel Assignments
- Trainer Function
- Warnings
- Servo Reversing (all channels)



◀ Switches E and F are on the upper-left side of the transmitter's case. Switch E is a three-position toggle, while F is a two-position, spring-loaded snap switch.

Switch H is located on the top right of the transmitter's case. It is a two-position toggle switch. It is program-assignable to the control function you want.

- Sub-Trims (all channels)
- Travel Limits (all channels)
- Dual Rates (aileron, elevator, rudder)
- Exponential (aileron, elevator, rudder)

AIRPLANE

- Wing Type (normal, V-tail, delta, single aileron, dual aileron, aileron + flap, 2 aileron + flap)
- Throttle Curve
- Throttle Cut
- Aileron Differential
- Aileron/Flap Adjust
- Aileron Mixer
- Elevator Mixer
- Air Brake Mixer
- Flap Mixer

HELICOPTER

- Swash Type (1 servo, 2 servos 180°, 3 servos 120°, 3 servos 140°)
- Throttle Cut
- Throttle Hold
- Throttle Curve
- Pitch Curve
- Gyro Mixing
- Swash Mixing
- Swash Limiter
- Throttle Mixing
- Rudder Mixing

LIKES

What we like about the TACTIC TTX650 to start with is the user interface. This radio is very easy to

> The back of the radio provides hand holds, access to the battery compartment and a very functional carry handle. It has an excellent feel in your hands and is lightweight too.



program because its programming logic is very intuitive. You start programming the radio as you would other major brands. You simply hold down the Enter key and then turn on the radio. The System Setup menu lets you enter User Name, Stick Mode, Screen Contrast, Beep Volume and Battery Alarm. The plus and minus keys to the right of the LCD screen let you navigate up and down through the system functions. Note

< The radio comes with four "AA" alkaline batteries. You can change them to NiCad or NiMH cells if you wish, which will then let you recharge when needed.



that our TTX650 only let us choose between Mode 1 and Mode 2 control types, but then Mode 3 and Mode 4 are rarely used in this country. Hitting the ESC key takes you right back to the home screen. The system settings are very easy to program or change, our shop dog could have done it!

To enter the Function menu you simply turn the radio on then press the Enter key. The functions include Model Select, Model Management, Wing Type, Channel Assignments, Warnings, Trainer and Trim Settings.

Model Select lets you pick from any of 20 models. In Model Management you will have the option of naming the model, copying the model, resetting it or erasing it.





This is your welcome screen with the brand name, transmitter and model number. Notice that it also displays the version number, which in this case is 1.010.



This is the main screen that is displayed when you turn the radio on and it has booted up. Boot up is quick too, taking less than two seconds.



The Settings screen is very easy to navigate. You'll simply push the Enter button and it will display. However, you must select the model you want to program first.



These are the additional programming functions that are available under the Settings menu. You'll move up and down in the menus using the up and down arrow keys.

➡ Wing Type lets you pick the wings configuration as well as the tail type, which includes normal, V-tail and Delta. What you're going to like is being able to use the Channel Assignments menu to program the radio for specific channel outputs. For example, you can change Output 1 to be any channel you like or want from the six channels that are available. Also, we like being able to program the Throttle position, cut and hold to have specific warnings.

Next, once you have chosen a model aircraft from the Model Select menu the radio gives you the options

to program Servo Set, Dual/Expo, CH5 and CH6 Set, Throttle Curve, Throttle Cut, Aileron Mixer, Rudder Mixer, Programmable Mixer, RF Output and Timers.

The Servo Set menu is where you will set servo reversing, sub trims and travel volumes. Again, the transmitter is very intuitive. To change a setting in the program you just navigate over a function, press Enter and then use the plus or minus keys to change the setting or a function. What is nice is that using the ESC key gets the radio out of a specific function and back to the home screen if you want to jump

out of a program setting.

Dual/Expo is what it says it is, with the exception that you'll want to typically enter the exponential as a negative number.

CH5 and CH6 Set is used to pick what switch you would like to assign to that control function. In this program function you can also select the offset and travel volumes for the specific function you are programming.

The throttle curve setting lets you change both the high and low points, assign a switch to the setting and set the exponential.





As you can see you set the amount of aileron to rudder mixing that you want for your model. You can also select the switch that can turn the mixing on and off.



This mix lets you mix rudder to ailerons or rudder to elevator as percentages. Again, you get to use a control switch to turn the mixes off or on.



The TTX650 has four programmable mixers built in. You can mix any channel with any other channel and you can choose a switch for control of the mix.



The throttle curve lets you control both the low and high points of the throttle. It too is switch-controllable and offers exponential control of throttle.



The Throttle Cut option is super easy to set up. You simply select the switch you want to use for for this option and then navigate to the respective set points.



This function is pretty self-explanatory, but the gist is you set the amount of dual rate or exponential you want, and pick the switch you like to control it.



Since this is a six-channel radio, you'll need to pick the switch or channel you want to control either channel five or channel six. You'll have the option for offset and travel too.



The timer gives you 99 minutes and 59 seconds of count time. As you would expect, the timer can be controlled by any switch or control function.



This versatile transmitter has an RF Output function that lets you turn the radio frequency on and off, as well as perform a radio-range test.

Specifications

Channels	Six
Frequencies	2.403–2.480 GHz
Modulation	FHSS spread spectrum SLT
Input power	(4) "AA" alkaline (included) or (4) NiCd or NiMH cells
Price	\$149.97 (towerhobbies.com)

Distributor

Great Planes

P.O. Box 9021
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Greatplanes.com



The Throttle Cut menu does just that. In this menu you can assign a switch to cut the throttle. The options allow you to pick the control switch, the trigger and the cut points.

The next option in the menu is Differential. While this menu only lets you set differential for aircraft with two ailerons, or with two ailerons and one flap, it still provides you the option to set a switch and have multiple set points. Alternately, you can set differential to be on continuously.

Additionally, the TTX650 comes with an Aileron Mixer option. This option lets you pick a switch so that

it provides triple rates on the mix, which in this case is an aileron to rudder. You'll need to use one of the three-position switches if you want to have triple rates on this mix.

The radio also provides for a Rudder Mix option, which lets you mix rudder to ailerons or rudder to elevator. This mix is also switch selectable.

Then too the 650 has a Programmable Mixers option that allows for four, free, programmable mixes. In these mixes you can mix any channel with any other. You have the option of setting the rate, offset and picking a control switch.

Another feature of this radio is the ability to turn the radio frequency output off or on. There is also an option for range-testing the radio.

Last but not least is the Timer option. You can set the minutes (99) and seconds (59) with your choice of activation switch.

WISH LIST

We'll end this review by saying that all we would want is rechargeable batteries. However, at its price point the TTX650 is, quite frankly, a bargain no matter how you look at it. 