Futaba 8UA product review.

After begging for a loaner system to evaluate, I finally got a Futaba 8UA radio (transmitter only) loaned to me for the purpose of a review. The timing is perfect, since this will be in the buyers guide issue. Many thanks to Tony Stillman at Radio South. If you decide to buy one because of what you read here, keep Tony at Radio South in mind since he made this review possible.

I presently own a Futaba 7UAP, 7UAPS, and a 9ZAP. I will try to make comparisons with these radios, since they are the ones I have experience with and are popular among the pattern crowd. I am writing this review solely for the pattern flyers, so I will not cover sailplane or helicopter modes, and will not spend a lot of time on non-pattern related features.

First impressions and observations:

The antenna screws directly into a PCB, instead of the retracting action that is on the 7UA and 9ZAP(a plus, in my mind).

The transmitter battery has a standard plug and pigtail, instead of the sliding contacts in the 7UA.

The charge socket is on the side of the radio, instead of the rear, so charging with the radio on its back is possible.

Digital trims, similar to the 9ZAP.

Lightweight.

The layout of the switches is identical to the 7UA, but switch functions can be assigned to different switches in most cases.

The round knobs for channels 6-8 don't have good markings on them. It is difficult to look at them and tell their positions. They appear to be standard 1/4 shafts, so other knobs might be used.

The LCD display, under normal operating conditions, shows the model name and number, modulation type, trim positions, and battery voltage.

Feature details:

ATV- Adjustable Travel Volume.
All eight channels are adjustable from 30% to 140% throw, each direction.

D/R- Dual Rates.
The Dual Rates (3) can be set from 30% to 140%. Each one can be assigned to any of the three dual rate switches, in any combination, or they can be turned on/off by the throttle stick position. It is possible, say, to have the ailerons and elevator DR activated by one switch, and the rudder DR activated by the throttle stick. The position of the throttle stick for activation is programmable.

EXP- Exponential.
Exponential throw can be programmed on Ail, Elev, Rud, and Throttle. On the flight channels, the amount of expo can be set separately for each side of the Dual Rates. On the throttle it can be set to make engine operation more linear.

IDL-DN - Idle Down.
This function lowers the engine idling speed. It can be activated by either the gear switch or the airbrake switch.

TH-CUT - Throttle Cut.
Provides an easy way to kill the engine, can be activated by any switch.

REVERS - Servo Reversing, self explanatory.

F/S - Fail Safe.
Only on systems with a PCM receiver. Each channel can be programmed to hold or to go to a preset position in the event of interference. A battery failsafe will reduce the throttle when the airborne battery drops below 3.8v.

TRAINR - Trainer function.
When used in a buddy box fashion, the 8UA can selectively give control of individual channels to the student radio.

MODEL - Model functions.
A model setup in memory can be selected, copied, or named. Each model can have a six character user defined name. Eight models can be stored in memory, and additional eight can be stored in the optional memory module, and can be moved from one radio to another.

TRIM - Trim settings.
The 8UA has digital trims similar to the 9ZAP. However, it only has one step setting where the 9ZAP has two. The digital trims make it much easier to use one transmitter to fly several planes, the trim settings are automatically saved when selecting another model. Another benefit is that the trims can't be moved when the radio is turned off. The actual trim positions are displayed on the LCD screen. With the trim step set to one, the trim position can be adjusted in the smallest amount, making precise trim adjustments possible.

TIMER - Timer function.
A built in timer can be programmed to count up or down, and activated by any switch or by throttle position. If tied to the throttle stick, it could be used to mimic a fuel gauge. If tied to the gear switch, it could show the time in the air during a flight.

PMIX - Programmable mixers.
This is where the 8UA is more like the 9ZAP than the 7UA. There are five mixers, instead of the two that are in the 7UA. These mixers are much more programmable, however. Each mixer can be assigned to any switch for activation, and can even be enabled/disabled by a throttle stick position.

With the LINK function enabled, any mix having a destination that controls two channels (ie: rudder into dual aileron channels) will automatically go to both channels. There is an offset function that controls where the neutral point of the source channel is. If the source channel is one that has a trim associated with it, there is a trim option that allows the trim to be included or excluded from the mix.

In addition to the programmable mixers, there are several pre-canned mixers as well. Flaperons, Aileron differential, Airbrake, Elevator-Flap, Vtail, Elevon, and Alvatr (dual elevator servos with ailerons). The dual elevator mixer allows two channels to control separate elevators, and ailerons can be mixed into each one if desired. The servo direction and mix amounts are all programmable. The airbrake function has a neat addition to it that allows the elevator speed to be adjusted to reduce the momentary pitch up/down when activated.

TH-DLY -Throttle delay.
This setting allows the speed of the throttle servo to be controlled.

TH-NDL - Throttle Needle Mixing.
If using an extra servo coupled with an in-flight adjustable needle valve, this function allows the mixture to be adjusted through the range of the throttle, so as to prevent an engine from loading up at any throttle setting. A five point curve can be programmed. In addition, there is an acceleration function that integrates throttle motion into the mixture channel.

SNP - Snap Roll.
The snap direction can be controlled by two front panel switches, and the throws for each direction (up/down, left/right) are individually programmable. Optionally, the snap function can be disabled when the gear is down. The 9ZAP puts the snap-direction switches on the back of the radio, the 7UA and 8UA have the direction switches on the front.

Conclusions.

Anyone who has used and programmed the 7UA should have no problems navigating around the menus immediately. This radio is relatively easy to program (from someone who has programmed the 7UA radios a lot) and the manual (this time) is VERY well written.

I would have to say that this radio is closer to the 7UA than it is to the 9ZAP in functionality. Looks like they took the 7UA and corrected everything that was wrong with it, and added a few of the most-used features of the 9ZAP.

The 8UA has digital trims similar to the 9ZAP. However, the 9ZAP does have two speed trims (depending on the pressure on the trim button) and the step size of each is separately programmable, whereas the 8UA has only one step size and the speed increases the longer you hold the trim button down. Also, the 9ZAP allows trims to be crossed, whereas the trims positions are fixed on the 8UA.

Overall, I really like this radio. If it had been around a year ago, I would have probably bought it instead of the 9ZAP. I really love my 9ZAP, but have to admit that the 8UA has just about every

feature that a pattern flyer needs. The biggest things the 9ZAP has over the 8UA are the mixer curves and flight conditions. It is easy to get lost playing with all the features of the 9ZAP, however.

I did not get a flight pack with this radio, so I can't say anything about that other than what I see in the catalog. The FM version comes with a R148DF receiver and S148 servos, while the PCM version comes with a R148DP receiver and S3001 servos. The S3001 is basically the S148 servo with a ball bearing output. The R148 receiver is the mini receiver, just slightly larger than a pack of gum, and weighs a mere 1.1 oz. The transmitter uses the same RF modules as the 7UA and 9ZAP radios, and the R129DP receiver does work with the 8UA. I would assume the R127DF receiver will work with it as well, although I have not verified this.

If you have the extra money and enjoy tinkering with radio setups then the 9ZAP would probably suit you better. However, the 8UA provides the majority of the features for about half the price, and setting up a plane is easier. I can't compare the JR or Airtronics radios with this one, since I have not had any experience with them. However, based on the features and price, I don't think anyone could go wrong buying this radio.