# GLOSSARY

**AILERON/RUDDER COUPLING SWITCH**—Flipping this switch on electronically couples the rudder to the aileron; so when the aileron stick is moved, both the aileron and the rudder are controlled for smooth, coordinated turns. Rudder movement can be adjusted to suit any aircraft, and the coupling action can be overridden at any time by the rudder stick.

**DIRECT SERVO COUPLING**—By plugging a cable from the airborne system into the transmitter, all servos can be operated without sending a radio signal, so trims and controls can be checked and adjusted even while someone else is on your frequency.

**DUAL RATE**—This switch lets the modeler choose between full servo throw and reduced servo throw while the model is operating. In the off position, 100% servo throw offers maximum control response. In the on position, servo throw is reduced and control response is desensitized. Total servo movement can be adjusted 30% to 100% when the switch is on, letting the modeler tailor the system to his craft.

**DUAL RATE EXPONENTIAL**—This functions the same as a standard dual rate, but it also allows the modeler to adjust the degree of control response from none (linear) to very pronounced (exponential). So the modeler gets the best of both dual rate and exponential radios in one package.

**END POINT ADJUSTMENT**—E.P.A. allows up to a 70% reduction of servo movement in either direction from neutral without affecting movement in the opposite direction. E.P.A. can easily allow a plane to be set for 85% throw one way and 96% throw in the other. Setting both sides to the same point reduces the total throw amount without adjusting linkages.

**EXPONENTIAL**—Exponential control response means the servo movement is not directly proportional to the control stick movement. Over the first half of stick travel, the servo moves less than the stick, making control response milder and smoothing out level flight and normal maneuvers. Over the last half of stick travel, the servo catches up with the stick so that at full travel, 100% servo throw is available for aerobatics or trouble situations.

**INVERT SWITCH**—When a model helicopter transitions from upright to inverted flight, flipping this switch instantly reverses the pitch, cyclic, collective and tail rotor function to allow inverted flight without mentally flying upside down and having to reverse the control inputs.

**LINEAR**—Linear control response means that servo movement is directly proportional to control stick movement. 10% stick movement gets 10% servo movement, 50% gets 50%, etc.

**PLUG IN R.F. BOARD**—A plug in R.F. board permits the signalgenerating portion of the transmitter to be easily changed to any of the 27, 53, 72, or 75 MHz bands or to AM or FM, just by changing the R.F. boards.

**SERVO REVERSING**—This feature allows the modeler to reverse a servo's rotation at the flip of a switch, so servos can be mounted in any way and proper rotation then selected.

**SPAN CONTROL**—This transmitter knob allows modelers to adjust the steering control throw on surface vehicles. The throw can be reduced up to 70% while the model is running to smooth out oversensitive handling.

**TAIL ROTOR COMPENSATION**—Used in helicopter operation, this feature automatically increases tail rotor speed when the throttle is advanced to counter the increased torque.

**THROTTLE HOLD**—This switch freezes the throttle in a position while still allowing collective pitch to be operated by the left stick.

**TRAINER SYSTEM**—With this feature, a cable couples two Airtronics transmitters to control the same plane. While student pilots are training, the instructor can take over instantly at the first sign of trouble.

# **SPECIALIZED ACCESSORIES**

Peak performance demands specialized equipment. That's why Airtronics has committed itself to the design and manufacture of a complete line of accessories, all carefully engineered to meet the modeler's most challenging applications.

92000 Receivers 93000 Crystals and Modules 94000 Servos 95000 Batteries and Chargers 96000 Special Accessories 97000 Wiring Harnesses and Cables 98000 Servo Trays and Arms 99000 Service Parts and Flags

## HIGH QUALITY KITS

The Airtronics tradition of excellence is also continued in our line of premium quality kits. We hand select the finest grades of woods and then machine cut and shape each part by hand to assure the best possible quality. Kits include complete hardware packages, full sized rolled plans, and easy-to-follow, step-by-step instruction manuals.

900102 Q-Tee 900208 Olympic II 900211 Sagitta 900 900212 Sagitta 600 900213 Olympic 650 900302 New Era III 900305 Monarch .05 900306 New Era .40 900307 Jetfire .20 900308 Jetfire .40



DIGITAL PROPORTIONAL RADIO CONTROL SYSTEM

AIRTRONICS CHAMPIONSHIP SERIES IN SANIFA

# THE AIRTRONICS COMMITMENT

At Airtronics, we're committed to producing the highest quality R/C equipment at the most reasonable price. Our transmitters offer all of the sought-after features like dual rate, servo reversing, servo throw adjustments, and a host of mixing and coupling capabilities.

As an added advantage, all of our transmitters, receivers, servos, and accessories are fully compatible. This compatibility, along with our transmitters' plug-in R.F. design, allows you to easily and inexpensively upgrade your system a step at a time—instead of replacing the whole system.

And because our staff includes modelers who span the entire range of modeling from sport flyers to national champions, you get years of first-hand experience built into every component we make.

So whether you're a Sunday flyer or a seasoned competitor, compare the quality, features, and reliability of Airtronics to anything the competition has to offer. Dollar for confident you'll find our equipment to be



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CS7P

CS7PS



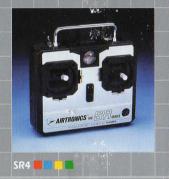


XL4



CS3W

XL2W



Helicopter systems available

Car systems available

# CHAMPIONSHI SERIES The CS Series has all features serious modelers demand. Dua trainer system, mixing capabilities, and available in AM or FM

XL SERIES With top of the line tial or linear response, trainer

CAR AND BOAT RADIOS Airand stick configurations. Servo reversing, adjustable exponential, dual rate steering, (E.P.A.), (T.T.A.), and AM and FM plug-in R.F. modules. with our more expensive com-ponents make this an outstand-ing system for the first-time

## SERVO SENSATION

Airtronics servos have developed a remarkable reputation for out-classing virtually every servo in their size and weight categories. Their high torque, rugged reliability, and accurate resolution have made them the preferred brand by most serious R/C aircraft, car, and boating enthusiasts. Many Airtronics servos include state of the art design innovations like ball bearing supported output shafts and coreless motors for improved efficiency and longer life.

#### **AIRTRONICS SERVO SPECIFICATIONS**

9439	01/403

PART	SERVO DESCRIP.	DIM.	TORQUE	TRANSIT	WT.
94394	Standard	1.54" x 0.79" x 1.59"	48 oz. in.	0.5 sec. (90°)	1.8 oz.
94401	B.B. Micro	1.22" x 0.59" x 1.22"	32.5 oz. in.	0.5 sec. (90°)	0.95 oz
94403	Hi-Speed B.B. Micro	1.22" x 0.59" x 1.22"	25 oz. in.	0.25 sec. (90°)	0.95 oz.
94394 St	upplied as the standard	servo in our radio syster	ns, the 9439	4 has proven co.	mpletely
re	eliable in years of work	dwide use. Suitable for	all applicatio	ns up to .60 aire	raft, 3.5
b	oats, and any car mode	el.			
04401 T	as industry landing m	ero coruos Pall bearing	output cha	fte and corelec	r motore

94401 The industry leading micro servos. Ball bearing output shafts and coreless m 403 make the 94401 and 94403 the most powerful and reliable servos in their class. For any application where size is a primary concern along with performance.

1.45" - 0.70" - 1.15" 35 -- 1- 0.4 -- (000) 1.1 --

### 94461/462 94501

94461	B.B. Mini	1.45" X 0.70" X 1.15"	35 OZ. IN.	0.4 sec. (90°)	1.1 OZ.
94462	Hi-Speed B.B. Mini	1.45" x 0.70" x 1.15"	27 oz. in.	0.2 sec. (90°)	1.1 oz.
94501	Microlite	1.06" x 0.49" x 1.06"	18 oz. in.	0.4 sec. (90°)	0.8 oz.
94461	With om I.C.'s and I	oall bearing output shaft	s, the 94461	and 94462 are a	compact
462	altern e to the 94394 scale electric cars.	4, suitable for sailplanes,	1/2A models	., .40 size aircraf	t, and 1/12
94501	This ultra-small servo is recommended for ½A models, and small sallplane or electric power models. The microlite servo compares favorably in size, weight and performance with any servo in this size class.				

## 94509/510 94581

94509	Heavy Duty					
	Waterproof	1.87" x 0.90"	x 1.54"	73.5 oz. in.	0.7 sec. (90°)	2.29 oz.
94510	Coreless Heavy Duty Waterproof	1.87" x 0.90"	x 1.54"	100 oz. in.	0.5 sec. (90°)	2.50 oz.
94581	Sail Winch	3.54" x 1.57"	x 1.77"	180 oz. in.	8.0 sec. (200°)	5 oz.
94509	The durability and power of these servos is unsurpassed. Perfect for large aircraft or					
510 large inboard boats, the 94509 and 94510 feature a massive gear train, heav amplifier and carbon pots and wipers.					avy duty	
94581	This compact and lightwo	eight sail winch	n provide	es high-torqu	ie and quick trar	isit for all

sailboats up to the 36/600 class. The finest unit of this type available.

### 94551/553/554/557

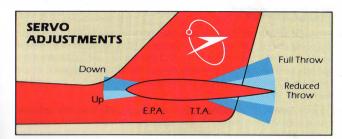
94551	Ball Bearing Standard	1.46" x 0.75" x 1.44"	47.5 oz. in.	0.5 sec. (90°)	1.87 oz.
94553	B.B. Retract	1.46" x 0.75" x 1.44"			
94554	Coreless B.B. H.D.	1.46" x 0.75" x 1.44"			
94557	Hi-Speed B.B.			and the second second	
	Coreless	1.46" x 0.75" x 1.44"	50 oz. in.	0.3 sec. (90°)	2.08 oz.
94551	Our finest all-around ser				

and accuracy, ball bearing output shafts, coreless motors (94554 and 94557), and car-

554 bon pots and wipers. The choice of champions in aircraft, helicopters, cars, and boats.

The 550 series servos are the clear choice when only the best will do

All servos feature an exclusive 23 position splined output shaft for easy servo centering and control surface adjustments.



END POINT ADJUSTMENT (E.P.A.) This feature lets the modeler adjust the servo for a different amount of throw in each direction from

TOTAL THROW ADJUSTMENT (T.T.A.) With this adjustment feature. modelers can cut down the servo throw equally on both sides of neutral for reduced response.



