

1976

# EK-logictrol

**Reliable**

**Reliable radio**

**Reliable radio control**

**Reliable radio control systems**



Happy Birthday, America. The nations 200th anniversary year will coincide with our 12th — but what sensational years they've been! Now, in keeping with that festive mood and pride of accomplishment EK-Logictrol is pleased to present a newly improved and refined line of radios and accessories for the Bicentennial.

- Our 3-channel radios offer you a choice of Brick (LRB) or separate component (Ranger) airborne systems. Either choice is provided with our new small 3 channel transmitter. These systems are designed for dry cell operation but may be ordered or converted to NICAD power anytime you wish.
- Our 5-channel radios offer unlimited flexibility with your choice of three different configurations. There is the LRB-5 which has 2 servos in the brick or the SUPERBRICK which features 3 servos in the brick. Either configuration is provided with a total of 4 servos, NICAD airborne batteries, and a transmitter designed to operate with dry cell power. This transmitter is available in either single or dual stick configuration and can be converted to NICAD power with the addition of an optional NICAD pack any time you wish. If you prefer separate airborne components we offer the CHAMPION which includes 4 servos and is provided with NICAD batteries for both receiver and transmitter.
- Our 7-channel SUPER PRO systems are offered in 1 or 2 stick configurations and are provided with your choice of single or dual conversion receivers, four servos and all nicad batteries. The transmitters feature a built-in expanded scale voltmeter (ESV) and a separate transformer isolated charger with light emitting diode (LED) charging indicator.
- Each and every radio system in this great line has the following features incorporated as standard equipment.
  - New high quality antenna collapses to much shorter height.
  - Transmitter voltmeters provided to monitor battery condition at a glance
  - Precision control sticks with adjustable tension
  - Square chrome bezels for truly distinctive appearance
  - Interchangeable switch harness which allows your choice of seven optional battery packs
  - Common servo plugs which allow your choice of 5 different servo options
  - The famous EK Logictrol exclusive one year warranty which is renewable for a second year.
  - A "magic" red plug for the 5 channel bricks which allows rudder/aileron switching or coupling.
- Useful optional features include:
  - A separate ESV for field use which allows you to monitor the condition of your airborne batteries.
  - A wide variety of airborne equipment mounting trays.
  - Buddy Box provisions for instructor/trainee use.
  - A range of useful accessories for use on all types of aircraft.

NOTE: System order numbers are listed below respective frequency bands.  
For suggested list prices, see current price sheet.



# SUPER-PRO

For serious-minded competition flyers.

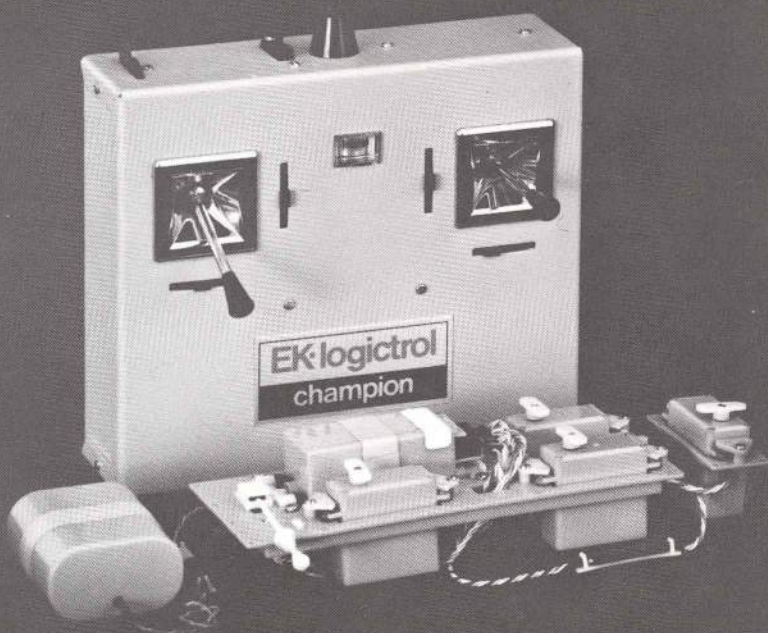
The transmitter provides 7 channels for control with your choice of two 2-axis sticks or one 3-axis stick plus separate motor control. Also included is a two-position toggle switch for retract landing gear and two levers for non-centering auxiliary controls. It also features a built-in expanded scale voltmeter for accurate indication of battery condition and a light-emitting diode (LED) charging indicator to match the external transformer isolated wall charger.

The receiver is crystal controlled superhetrodyne with double tuned front end, one tuned RF stage, mixer 455 KHZ IF frequency followed by 3 IF stages (4 tuneable IF cans) and is Zener regulated for minimum change of sensitivity over the voltage operating range. An optional dual conversion receiver is available which features 10.7 MHZ and 455 KHZ mixers and a filter block for maximum rejection of spurious signals and image rejection better than 80 db.

The system also includes 4 EK Logictrol servos (SM are standard, others optional), NICAD batteries, switch harness, transformer isolated wall charger and charger cord, transmitter antenna and all necessary mounting hardware including aileron and Uni-mounts.



FREQUENCY BAND	27	53	72
2 STICKS 7 CHANNEL	512	513	514
1 STICK 7 CHANNEL	500	501	502



# CHAMPION

For Sport Flyers the World Around.

The transmitter provides 5 channels for control with two 2-axis sticks plus one lever for non-centering auxiliary control. Also included is a voltmeter for quick reference to battery voltage and a light-emitting diode (LED) charging indicator for the external transformer isolated wall charger.

The receiver is crystal controlled superhetrodyne, with double tuned front end, one tuned RF stage, mixer 455 KHZ IF frequency followed by 3 IF stages (4 tuneable IF cans), and is Zener regulated for minimum changes of sensitivity over the operating voltage range.

The system also includes 4 EK Logictrol servos (SM are standard, others optional), NICAD batteries, switch harness, transformer isolated wall charger and charge cord, transmitter antenna and all necessary mounting hardware including aileron and Uni-mounts.

FREQUENCY BAND	27	53	72
2 STICK 5 CHANNEL	456	457	458



# SUPER-BRICK

Especially great for Sailplanes and Quarter Midgets or any where else radio room is scarce!

The transmitter provides 5 channels for control with your choice of two 2-axis sticks plus one non-centering control lever on the auxiliary channel or one 3-axis stick plus two non-centering controls. It also incorporates a voltmeter for battery condition reference and a light-emitting diode (LED) charging indicator. The transmitter is normally supplied with provisions for 9V dry cell battery operation but will easily accept the optional NICAD battery which simply snaps in place.

The receiver together with three servos are combined in one "UNI-PAK" brick which permits rapid installation in very minimum size areas. There are two pigtails provided for external servo additions. A unique feature known as the "magic red plug" enables the aileron/rudder functions to be either switched or coupled.

The system is normally provided with 4 EK Logictrol servos (3 in the brick and one individual), a NICAD battery for the receiver, switch harness, transformer isolated wall charger and charge cord, transmitter antenna and all necessary mounting hardware including aileron and Uni-mounts.



FREQUENCY BAND	27	53	72
2 STICK 5 CHANNEL	403	404	405
1 STICK 5 CHANNEL	353	354	355

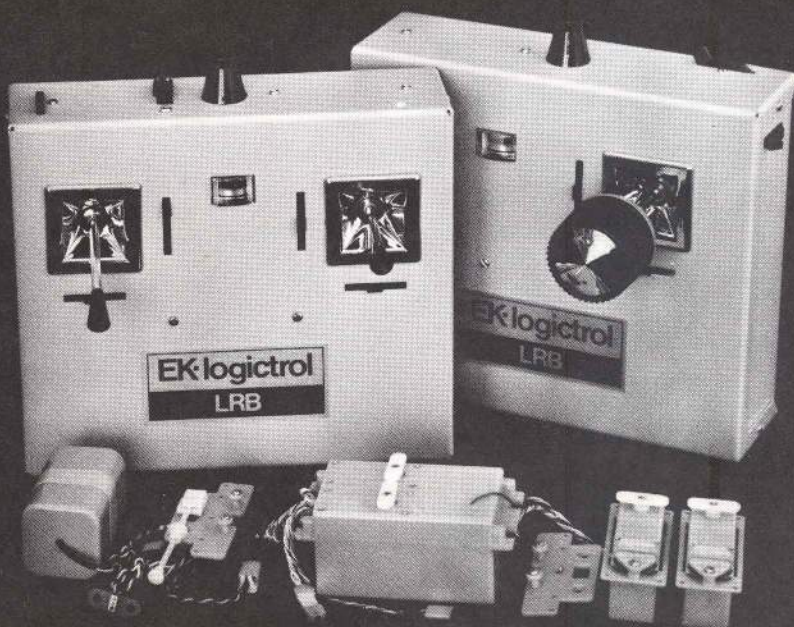
## LRB-5

Worlds most versatile radio for use in glider, trainer, racer, sport, pattern or scale aircraft without modification.

The transmitter provides 5 channels for control with your choice of two 2-axis sticks plus one non-centering control lever on the auxiliary channel or one 3-axis stick plus two non-centering controls. It also incorporates a voltmeter for battery condition reference and a light-emitting diode (LED) charging indicator. The transmitter is normally supplied with provisions for 9V dry cell battery operation but will easily accept the optional NICAD battery which simply snaps in place.

The receiver together with two servos are combined in one "UNI-PAK" brick which allows installation in even the smallest planes of today. There are 3 pigtails provided for external servo additions common to larger aircraft. A unique feature known as the "magic red plug" enables the aileron/rudder functions to be either switched or coupled.

The system is normally provided with 4 EK Logictrol servos (2 in the brick and two individual), a NICAD battery for the receiver, switch harness, transformer isolated wall charger and charge cord, transmitter antenna and all necessary mounting hardware including aileron and Uni-mounts.



FREQUENCY BAND	27	53	72
2 STICK 5 CHANNEL	306	307	308
1 STICK 5 CHANNEL	206	207	208



# RANGER

A great 3 channel system of individual components for planes, boats, or cars.

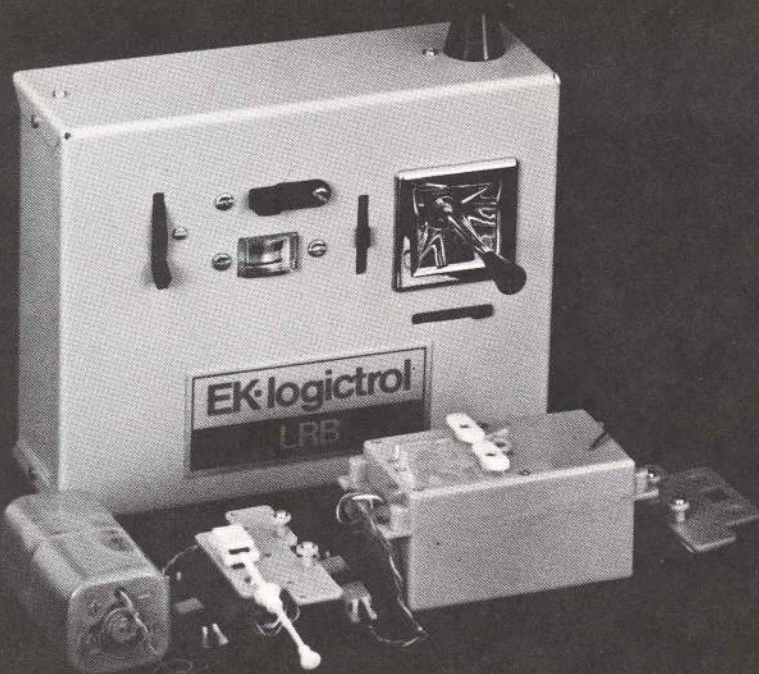
The transmitter is the new small size and provides 3 channel control with a 2-axis stick and separate non-centering lever. A voltmeter is included for quick reference to battery voltage. The transmitter is normally provided for dry cell operation but may be converted to optional NICAD battery power anytime.

The receiver is crystal controlled superhetrodyne, with double tuned front end, one tuned RF stage, mixer 455 KHZ IF frequency followed by 3 IF stages (4 tuneable IF cans), and is Zener regulated for minimum changes of sensitivity over the operating voltage range.

The system also includes 2 EK Logictrol servos (SM are standard, others optional) dry cell battery case, switch harness, transmitter antenna and all necessary mounting hardware including Uni-mounts.



FREQUENCY BAND	27	53	72
1 STICK 3 CHANNEL	90	91	92



## LRB-3

The world's most economical 3 channel radio in terms of time, space, and money.

The transmitter is the new small size and provides 3 channel control with a 2-axis stick and separate non-centering lever. A voltmeter is included for quick reference to battery voltage. The transmitter is normally provided for dry cell operation but may be converted to optional NICAD battery power anytime.

The receiver together with two servos are combined in one "UNI-PAK" brick which allows installation in even the smallest planes of today. One pigtail is provided for addition of an optional external servo. The receiver is crystal controlled superhetrodyne with double tuned front end, one tuned RF stage, mixer 455 KHz IF frequency followed by 2 IF stages (3 tuneable IF cans), and is Zener regulated for minimum change of sensitivity over the operating voltage range.

The system is normally provided with 2 EK Logictrol servos (in the brick) dry cell battery case, switch harness, transmitter antenna and all necessary mounting hardware including Uni-mounts.

FREQUENCY BAND	27	53	72
1 STICK 3 CHANNEL	100	101	102



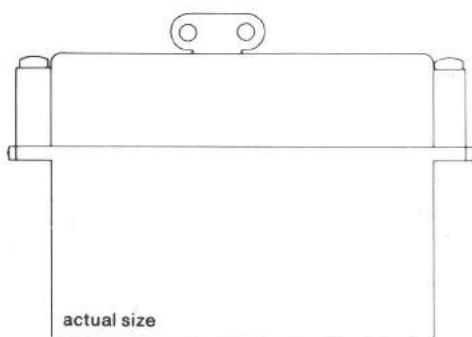
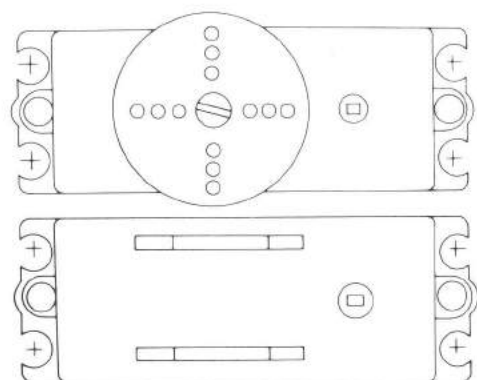
<b>TRANSMITTER</b>	<b>LRB-3 AND RANGER</b>	<b>LRB-5 &amp; SUPER BRICK</b>	<b>CHAMP</b>	<b>SUPER PRO</b>
<b>SIZE</b>	6 1/8" x 5" x 2 1/16"	7" x 6 1/8" x 2"	7" x 6 1/8" x 2"	7" x 5 7/8" x 1 7/8"
<b>WEIGHT</b> (includes antenna and batteries)	1 lb. 12 oz.	2 lb. 3 oz.	1 lb. 14 oz.	1 lb. 15 oz.
<b>CURRENT DRAIN</b> (varies with frequency)	90-110ma	90-110ma	90-110ma	90-110ma
<b>NICAD BATTERY CAPACITY</b> (9.6 v nominal)	optional 500mah	optional 500ma	standard 500mah	standard 550mah
<b>CHANNELS AVAILABLE</b>	3	5	5	7
<b>STICK CONFIGURATION</b>	1	1 or 2	2 only	1 or 2
<b>AUX LEVERS</b>	1	1	1	2
<b>AUX SWITCH</b>	0	0	0	1
<b>TYPE METER</b>	voltmeter	voltmeter	voltmeter	ESV
<b>FREQUENCY TOLERANCE:</b> (in percent over temperature and voltage range)	less than .003%	less than .003%	less than .003%	less than .003%
<b>MODULATION: PPM</b> (pulse position modulation)	1.38mSEC	1.38mSEC	1.38mSEC	1.38mSEC
<b>OPERATING VOLTAGE RANGE</b>	6.5-10.5v	6.5-10.5v	6.5-10.5V	7.5-10.5v
<b>OPERATING TEMPERATURE RANGE</b>	0-140°F	0-140°F	0-140°F	0-140°F
<b>OPERATING TIME</b> (on full charge)	10-15 hrs. on dry cell	10-15 hrs. on dry cell	3.0 hrs.	3.5 hrs.
<b>CHARGER:</b> (external, rate 45ma/14 hr full charge with LED indicator)	optional	optional	yes	yes
<b>BUDDY BOX PROVISION:</b>	No	No	No	optional

<b>RECEIVER</b>	<b>LRB-3</b>	<b>RANGER</b>	<b>LRB-5</b>	<b>SUPER BRICK</b>	<b>CHAMPION</b>	<b>SUPER PRO</b>
<b>SIZE</b> WIDTH LENGTH HEIGHT	1.45" 2.75"x 1.69"x	1.19" 2.19" 1.19"	1.45" 2.75"x 1.69"x	1.50" 3.13"x 1.69"x	1.19" 2.19" 1.19"	1.19" 2.19" 1.19"
<b>WEIGHT</b>	4.25 oz (incl. 2 servos)	2 oz	4.5 oz (incl. 2 servos)	5.5 oz (incl. 3 servos)	2 oz	2 oz
<b>CURRENT DRAIN</b> (receiver only)	(incl. 2 servos) 45ma	30ma	(incl. 2 servos) 45ma	(incl. 3 servos) 53ma	30ma	30ma
(receiver plus 4 servos)	N/A	N/A	62ma	62ma	64ma	64ma
<b>STANDARD BATTERY</b>	4 dry cells	4 dry cells	4-500mah NICADS	4-500mah NICADS	4-550mah NICADS	4-550mah NICADS
<b>NICADS OPTIONAL</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>SENSITIVITY</b> (for full control)	luV	luV	luV	luV	luV	luV
<b>SELECTIVITY</b>	4KC at 3db	3.5KC at 3db	4KC at 3db	4KC at 3db	3.5KC at 3db	3.5KC/3db 20KC/60db
<b>AGC</b> (dynamic range)	60db	60db	60db	60db	60db	over 60db
(number amplifier stages controlled)	2	3	2	2	3	3
<b>OPERATING TEMPERATURE RANGE</b>	0-140°F	0-140°F	0-140°F	0-140°F	0-140°F	0-140°F
<b>ANTENNA</b> (72 mHz)	39" wire	39" wire	39" wire	39" wire	39" wire	39" wire
<b>CHANNELS AVAILABLE</b>	3	3	5	5	5	7
<b>MOUNTING RECOMMENDED</b>	UM-9	UM-6 UM-7 UM-8	UM-9	UM-9	UM-6 UM-7 UM-8	UM-6 UM-7 UM-8



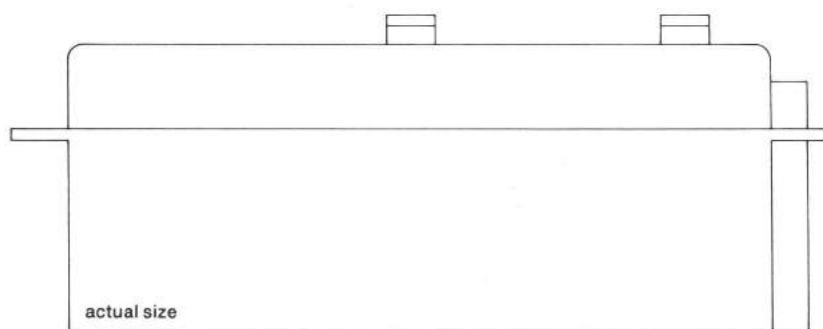
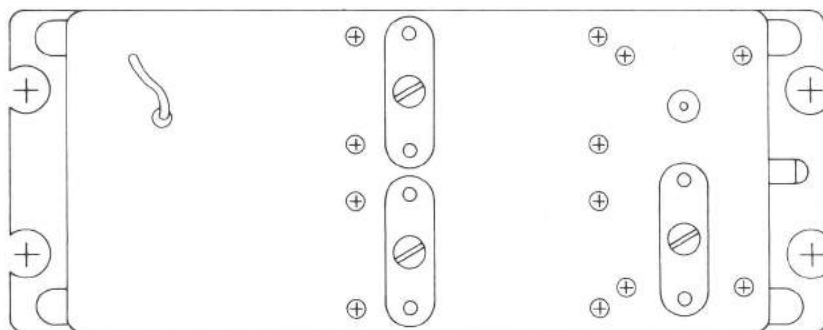
<b>SERVO</b>	<b>SM SUPER MINI</b>	<b>MM MINI MITE</b>	<b>180° SM</b>	<b>RMM ROTARY MINI MITE</b>	<b>XM MAXI MITE</b>
<b>SIZE</b>	1.41"x 1.38"x .71"	.85"x 1.94"x 1.48"	1.41"x 1.38"x .71"	.85"x 1.94"x 1.48"x	.85"x 1.94"x 1.59"
<b>WEIGHT</b> (includes plug, cable and amplifier)	1.2 oz	1.8 oz	1.2 oz	1.8 oz	2.0 oz
<b>OUTPUT:</b> (type)	Rotary	Linear	Rotary	Rotary	Rotary
(thrust — pounds)	4 lbs	3.5 lbs	4 lbs	2.5 lbs	6.5 lbs plus
(torque inch — pounds)	1.45	N/A	1.45	.8	1.91
<b>CURRENT DRAIN</b> (idle)	7.5ma	7.5ma	7.5ma	7.5ma	8.3ma
(stalled)	420ma	420ma	420ma	420ma	580ma
<b>INPUT PULSE</b> (neutral)	positive 1.38mSEC	positive 1.38mSEC	positive 1.38mSEC	positive 1.38mSEC	positive 1.38mSEC
(extremes)	±.48mSEC	±.48mSEC	±.48mSEC	±.48mSEC	±.48mSEC
<b>RESPONSE TIME</b> (depends on frame rate)	approx 16mSEC	approx 16mSEC	approx 16mSEC	approx 16mSEC	approx 16mSEC
<b>CONTROL ACCURACY</b> (better than)	1%	1%	1%	1%	1%
<b>SLEW TIME</b> (to stop)	.3 sec	.3 sec	.3 sec	.2 sec	.3 sec
<b>TRAVEL</b>	±45°	7/16"	±90°	±45°	±90°
<b>OPERATING VOLTAGE RANGE</b>	3.5 to 6V	3.5 to 6V	3.5 to 6V	3.5 to 6V	3.5 to 6V
<b>OPERATING TEMPER- ATURE RANGE</b>	0-140°F	0-140°F	0-140°F	0-140°F	0-140°F
<b>MOTOR</b> (size)	16mm	20mm	16mm	20mm	16mm
(resistance)	11 ohm	11 ohm	11 ohm	11 ohm	3.5 ohm
(type brushes)	silver alloy	silver alloy	silver alloy	silver alloy	silver alloy
<b>RECOMMENDED MOUNTING</b> (multiple)	UM-6 UM-10 UM-11	UM-3 UM-7	UM-6 UM-10 UM-11	UM-3 UM-7	UM-3 UM-7
(single)	AM-3 or -4	AM-1 or 2	AM-3 or -4	AM-1 or -2	AM-1 or -2

<b>BATTERY</b>	<b>Rx B-035</b>	<b>Rx B-048</b>	<b>Tx B-051</b>	<b>Rx B-057</b>	<b>Rx B-067</b>	<b>Rx B-069</b>	<b>Rx B-073</b>	<b>Rx B-074</b>
<b>SIZE</b>	1 1/8"x 1 15/16"x 2 5/16"	13/16"x 1 9/16"x 1 9/16"	1 5/16"x 2 9/16"x 2 3/16"	13/16"x 1 9/16"x 2 1/2"	13/16"x 1 3/8" x 2 7/8"	1 5/16"x 1 5/16"x 2 1/8"	11/16"x 2 3/16"x 2 9/16"	1 3/16"x 1 3/16"x 2 5/8"
<b>WEIGHT</b>	4.8 oz	1.8 oz	7.5 oz	3.0 oz	3.2 oz	3.6 oz	3.6 oz	0.6 oz (less cells)
<b>NUMBER CELLS</b>	4	4	8	4	4	4	4	4
<b>TYPE</b> (cell size)	1/2 Sub C	1/3 Fat "A"	Pencell	2/3 Fat "A"	2/3 Fat "A"	Pencell	Pencell	Pencell
(Dry or NICAD)	NICAD	NICAD	NICAD	NICAD	NICAD	NICAD	NICAD	DRY
<b>CAPACITY</b> (mah)	550	225	500	450	450	500	500	N/A
<b>RECOMMENDED CHARGER U-098</b> (external wall type)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
(single U-097 function adopter)	Ok	Ok	No	Ok	Ok	Ok	Ok	No
<b>VOLTAGE</b>	4.8V	4.8V	9.6V	4.8V	4.8V	4.8V	4.8V	6.0V



actual size

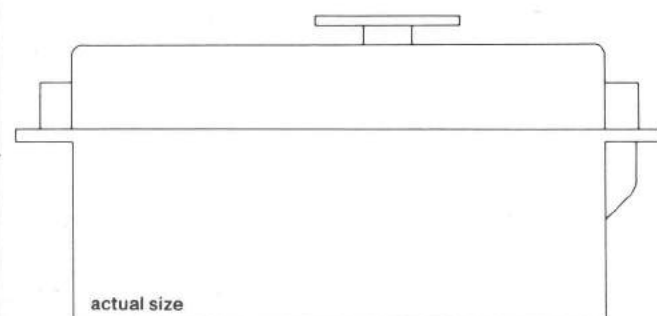
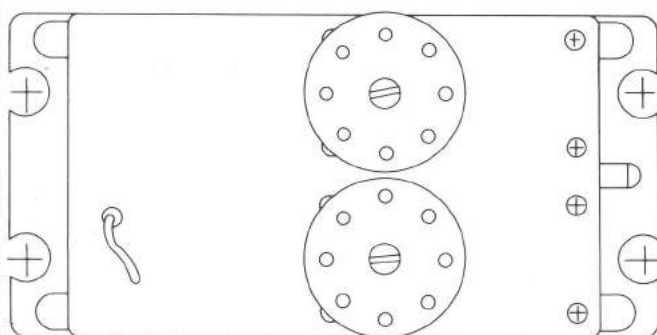
Mini-Mite Servo (Linear or Rotary)



actual size

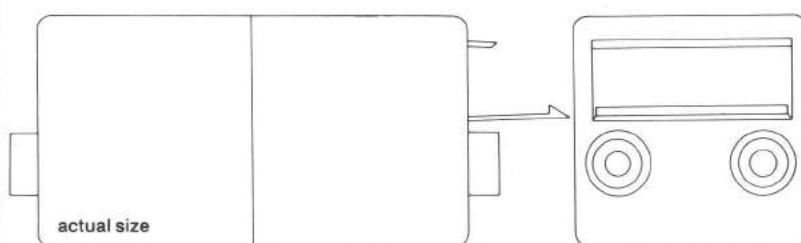
LRB-5 Super Brick (3+2)  
Receiver/Servo Package

# EK-Servos/Receivers



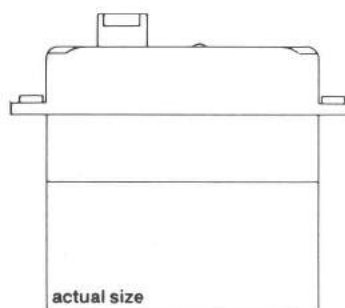
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LRB-5 Super Brick (3+2) Receiver/Servo Package



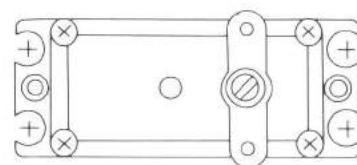
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Champion/Super-Pro Receiver

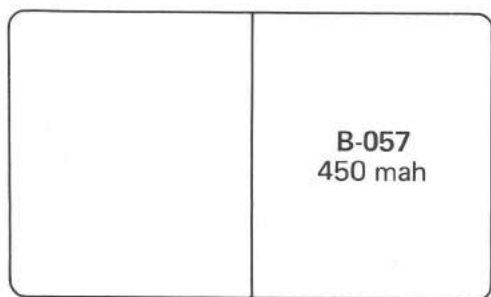


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Super-Mini Servo

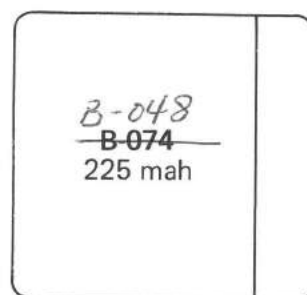




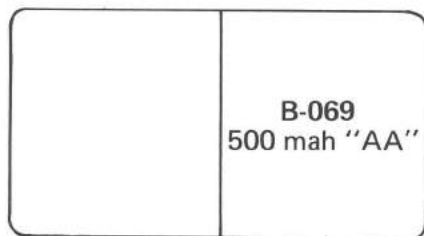


Battery Pack

actual size

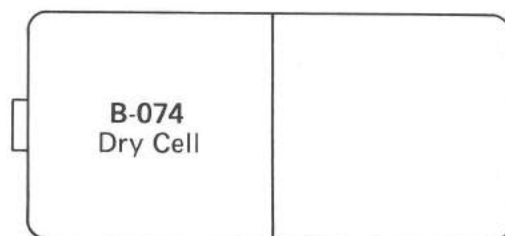


actual size Battery Pack



Battery Pack

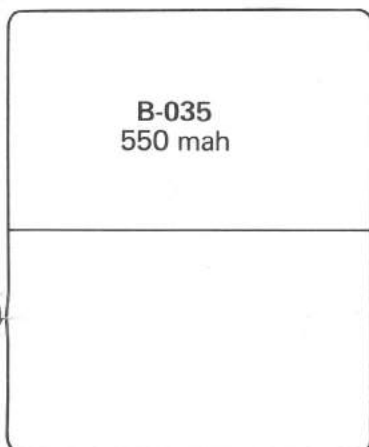
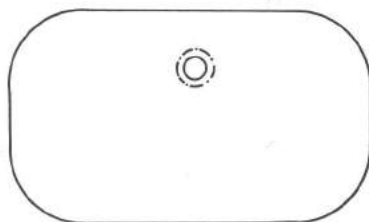
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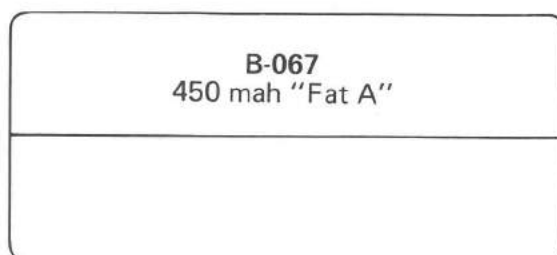
Battery Pack

# EK-accessory Battery Packs



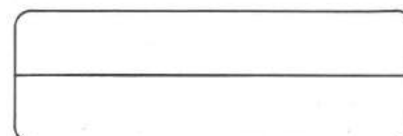
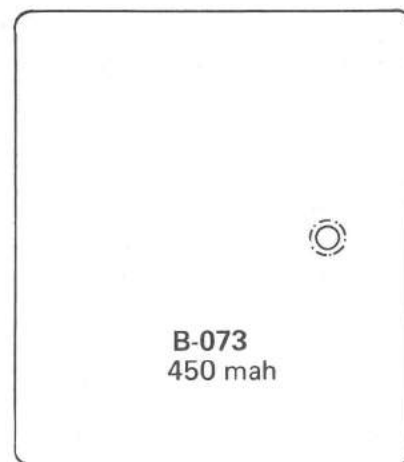
Battery Pack

actual size



Battery Pack

actual size



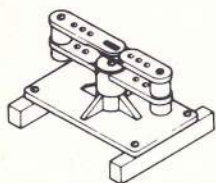
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Battery Pack



# EK-accessories

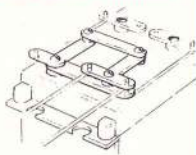
**DCM-1**  
Dual Control Mixer;  
V-tail gliders



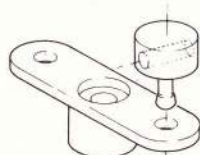
**CPF-1**  
Combat Fuel  
Pinch-Off  
PKG of 3



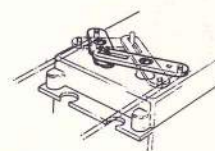
**DCM-7**  
Dual Control Mixer  
Mounts on Super Brick  
(Separate Mount Included)



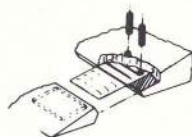
**SRL-1**  
Snap Retainer Lug  
PKG. of 3



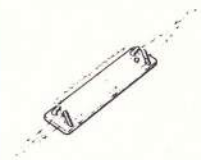
**S-244**  
Super Brick  
Throttle  
Crossover



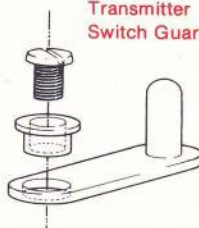
**HR-1 (Shown) The**  
original no-pin hinge  
with barbs.  
**HR-2**  
With holes



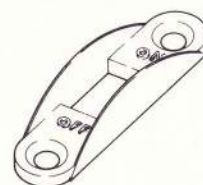
**PR-3**  
Plug Retainer  
PKG. of 3



**SG-1**  
Transmitter  
Switch Guard



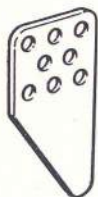
**SG-2**  
(Noble) Transmitter  
Switch Guard



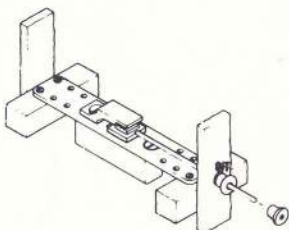
**BMK-1**  
LRB Mounting Kit



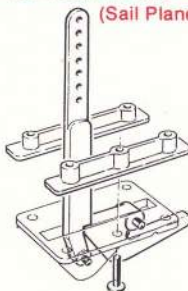
**WSP-1**  
Wing Skid Plate  
PKG. of 4



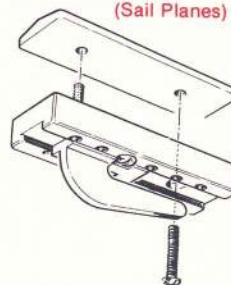
**SMB-1**  
Switch Mounting Bracket (Noble  
switch); 95% of all systems use  
Noble switches.



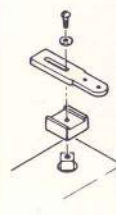
**THR-1**  
Tow Hook Release  
(Sail Planes)



**ATH-1**  
Adjustable Tow Hook  
(Sail Planes)



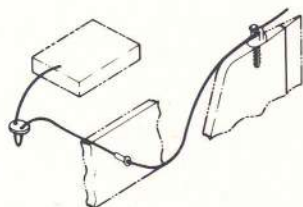
**ASA-1**  
Adjustable Servo  
Arm; EK-SM  
servo.



**LGR-1**  
Landing Gear Retainer.



**AMH-1**  
Antenna Mounting Hardware (receiver).



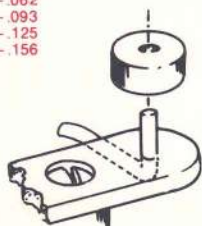
**ESV #M-006**

Expanded Scale Voltmeter; for Ni-Cad  
receiver batteries; used to  
determine capacity of  
airborne receiver  
pack.

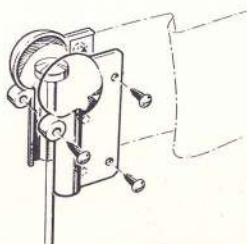


**NEW  
IMPROVED  
ESV**

**POC**  
Push-on Collars:  
POC-1 - .045 through .156  
POC-2 - .045  
POC-3 - .062  
POC-4 - .093  
POC-5 - .125  
POC-6 - .156



**FFR-1**  
Frequency Flag  
Retainer



EK-accessories are available through your area dealer or wholesaler  
EK-logictrol, 3322 Stovall St., Irving, Texas 75061.

**EK-logictrol**

Reliable radio control systems