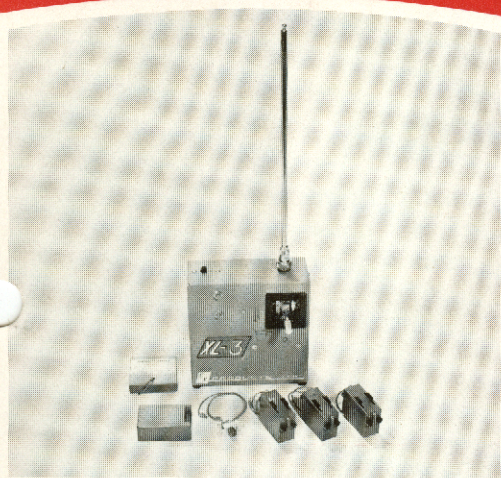
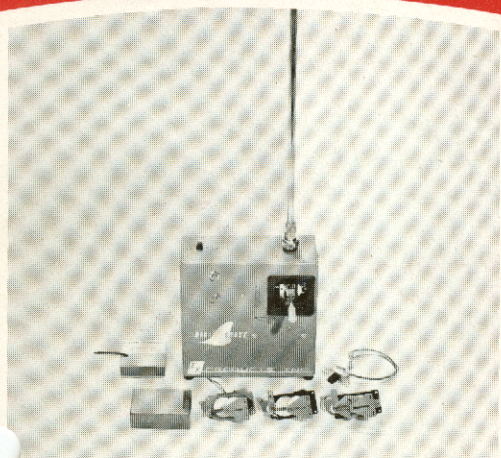


LOGICTROL III
MINI-SYSTEM



XL-3 SYSTEM

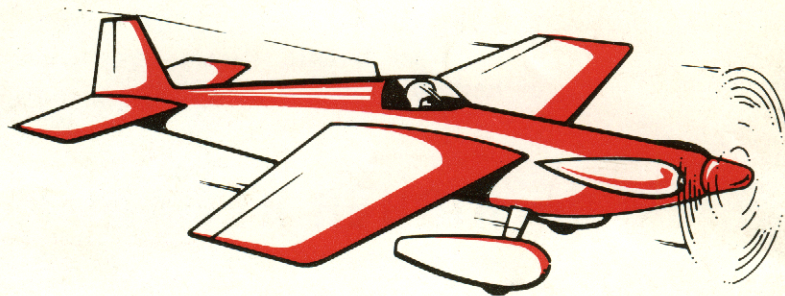


DIGI-GHOST
GALLOPING GHOST GONE MODERN

From the Reliability Leaders

LOGICTROL ***HI-REL***

Proportional Radio Control Systems



EK **PRODUCTS INC.**
3233 W. EULESS HURST, TEXAS 76053 817/283 4092

THE HI-REL LOGICTROL III MINI-SYSTEM

LOGICTROL III for 1968 is smaller and lighter; offers greater reliability and higher performance at less cost. Some of the outstanding features of this Dynamic HI-REL proportional radio control system are presented on the opposing page. The development program of the LOGICTROL III MINI-SYSTEM consisted of three basic objectives: (1) Reduce cost to the modeler, (2) provide greater reliability, and (3) make possible the operation of much smaller full-house airplanes. A discussion of how these objectives were achieved follows.

SMALLER SIZE & LOWER WEIGHT

Reductions in weight and size resulted from the use of small discrete components (small coil forms, 9/32" transformers, etc.), a simpler amplifier circuit, denser layout, new compact servo, and smaller battery.

HIGHER RELIABILITY

Higher reliability was achieved by the elimination of many wires, pin connections, and solder joints. A new three-wire plug-in servo system and the integral receiver plug made this possible. Also the use of a simple untapped 4.8 V two-wire battery that can operate even if one cell is dead, makes its contribution. The hi-impact polycarbonate thermoplastic servo and receiver cases give extra protection.

LOWER COST

Lower cost to the modeler at time of purchase is obvious from the new low prices shown in this catalog. This was obtained by carefully choosing reliable discrete components and by innovations for simpler production and mechanization. Not so obvious are the design features that will cut maintenance and repair costs. The new polycarbonate cases will prevent excess damage that usually results from crashes. And the case design will undoubtedly limit servo repairs to the cost of parts and postage only.

LOGICTROL III MINI-SYSTEM FEATURES

- 50% smaller receiver
- 40% smaller servos
- 14½ ounce flying weight
- 3-wire plug-in servo system
- New Mini-Mite servo with dual linear outputs — 5/8" stroke, 4 lbs. trust.
- New Plug-in receiver with important circuit refinements
- Only receiver in the industry with double tuned front end with R.F. amplifier.
- Hi-impact polycarbonate thermoplastic receiver and servo cases.
- Smaller 2 wire battery allows operation when one cell is dead.
- Higher Performance through refinement of circuits.
- Reliable open gimbal control stick — no neutral backlash.
- Single or dual control stick transmitters with 5 or 7 controls.
- LOGICTROL 5 may be expanded to 7 controls.

LOGICTROL III TRANSMITTERS

Advanced LOGICTROL III transmitters send twice as much position information per second as double-pulse or fixed frame rate transmitters. LOGICTROL's variable frame rates allow over 200 servo position increments, which gives you a finer degree of control with the highest servo resolution available in model airplane R/C systems. All transmitters have reliable open gimbal control sticks. They never allow neutral backlash which is common with enclosed gimbal types. Each LOGICTROL transmitter contains a built-in dual-function charger that permits simultaneous transmitter and receiver battery charging with visible light indication. LOGICTROL transmitters are distinguished by their bright red textured vinyl finish and conveniently located trim and auxiliary controls. LOGICTROL 5 can be converted at any time to the famous LOGICTROL 7.

MOST ADVANCED TRANSMISSION SYSTEM AVAILABLE TODAY

Output	600 mw
Operating Voltage	11-12 Volts D. C.
Frequency	26.995, 27.045, 27.095, 27.145, 27.195, 72-76 mHz and 6 meters
Dual Stick Controls	STD.—Elevator and Aileron right stick. Elevator and rudder left stick. SPC.—Throttle and Aileron right stick. Elevator and rudder left stick. Trim—All functions except throttle.
Single Stick Controls	Elevator, Rudder, Aileron, Throttle. Trim—All functions except throttle.
Auxiliary Controls	1 on Logictrol 5—3 on Logictrol 7.
Antenna	Removable 54" Collapsible 5 section whip. (40" for 72 mHz)
Operating Temperature ..	0° F. to 150° F.
Weight	40 oz.

UNEQUALED NOISE IMMUNITY AND SELECTIVITY

Size	1.6 x 2.5 x .850 in.
Weight	2.0 ozs.
Power	4.8 volts D.C.
Idle Current	25 ma
Sensitivity	Less than 2 microvolts for full control.
Selectivity	2KD @6DB
Operating Temperature	0° F. to 150° F.

LOGICTROL III RECEIVER

New LOGICTROL receivers have an integral servo plug that eliminates numerous wires and solder joints. Its new Hi-Impact polycarbonate themoplastic case provides added protection for receiver components. LOGICTROL receivers feature a solid state, superheterodyne all silicon transistor circuit, with tuned R.F. stage, for maximum signal to noise ratio and unexcelled selectivity. LOGICTROL noise immunity permits the use of metal to metal control linkage. LOGICTROL receivers use Zener regulated voltage to maintain full receiver sensitivity from full battery charge down to 1.1 volt. The decoder incorporates Hybrid-Integrated circuits in the form of Silicon Controlled Switches (SCS). An SCS is, in effect, an NPN and a PNP transistor integrally manufactured with unique properties that permit the device to be triggered "ON" and also triggered "OFF". The SCS's are connected in an open ring counter type circuit with the successive pulse passed down the chain of SCS's. LOGICTROL receiver electronics are coated with space age polyurethane plastic film to prevent premature component or wire failure.

LOGICTROL III SERVOS

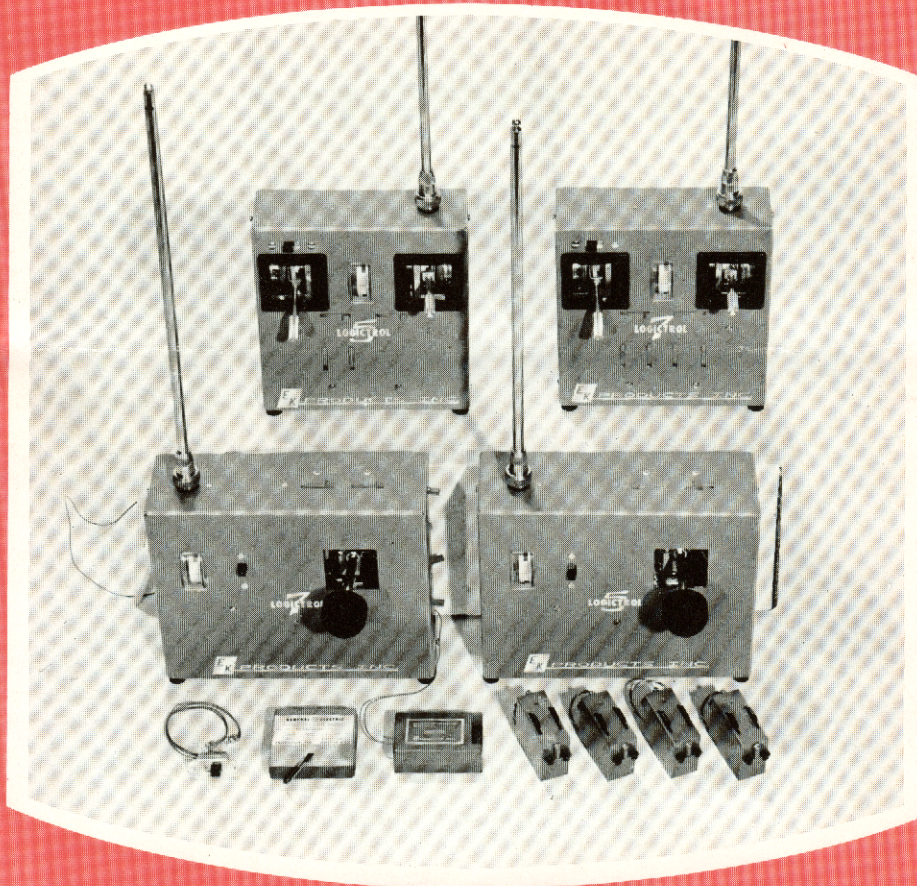
The MINI-MITE servo is one of the smallest servos to be introduced this year. Its case is molded of HI-IMPACT polycarbonate themoplastic and is comprised of three sections. The top section provides bearing supports for one end of the gear train and houses the output arms. The middle section provides the other bearing support and houses the gear train, feed back pot, and motor support. The bottom section incorporates the mounting lugs and covers motor and electronics. Its new three wire plug-in system assures you of greater reliability. The heart of the Servo is a precision motor with silver-alloy brushes, and hard-surfaced carbon ceramic potentiometer to ensure long life and positive control. The amplifier is coated with space age polyurethane plastic film to prevent premature component or wire failure. See back cover for complete Mini-Mite Servo details.

HIGHEST RESOLUTION AND RELIABILITY

Weight	2½ ozs.
Thrust	4.0 lbs.
Response Time	14 milliseconds
Centering Accuracy	Better than ± 1%
Drift	Less than ± 1% (at 0° F. to 150° F.)
Interaction	None
Full torque at any error amplitude	
Idle Current	4 ma

HI-REL LOGICTROL III

Mini-System



A complete LOGICTROL III system includes: transmitter of your choice with integral 12 volt, 500 ma/hr. nickel-cadmium rechargeable power pack and dual function charger; receiver of your choice with 4.8 volt 500 ma/hr. nickel-cadmium rechargeable power pack; 4 Mini-Mite servos; a two-wire double-pole, single throw switching harness, A.C. charging cord and D.C. charging harness, all completely wired, ready to install and fly. Operation instructions are included.

COMPLETE SYSTEM PRICES

Dual Stick, 5 Controls . . . \$395

Dual Stick, 7 Controls . . . \$445

Single Stick, 5 Controls . . . \$420

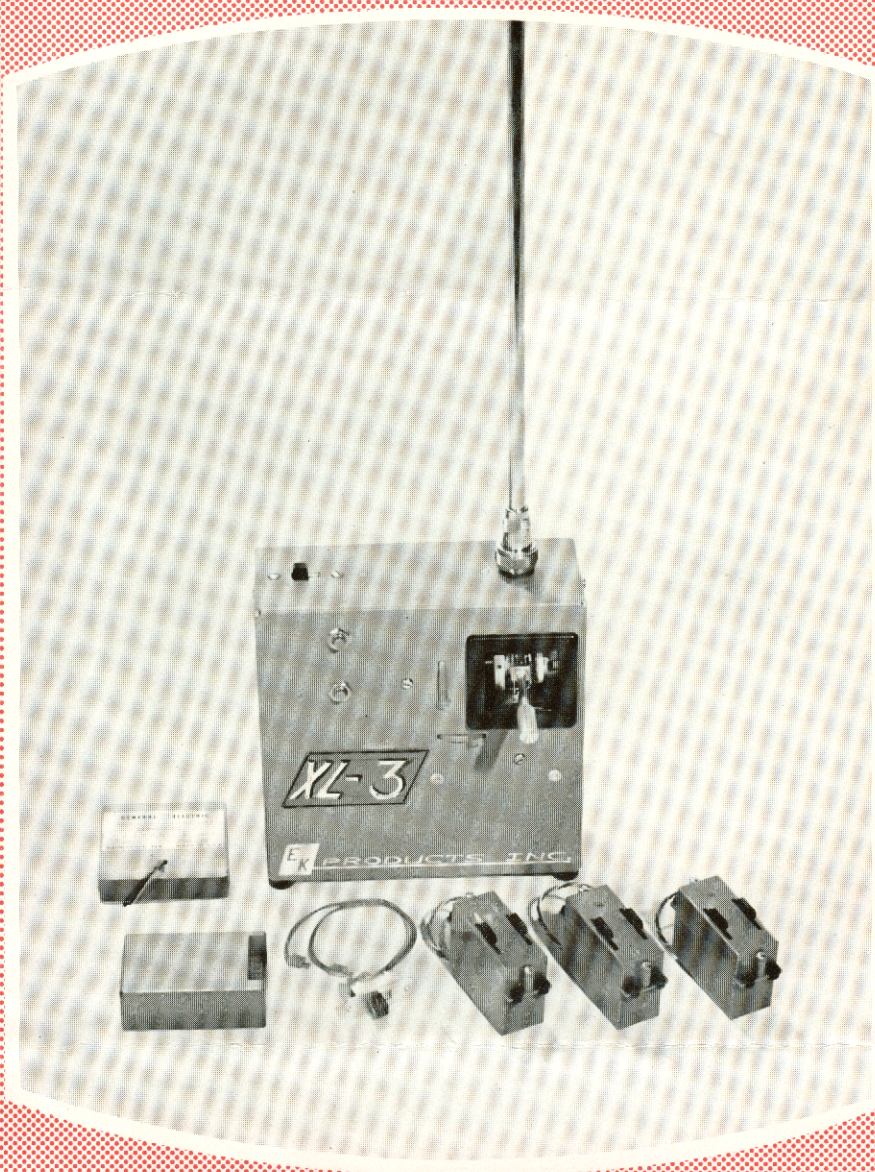
Single Stick, 7 Controls . . . \$470

INDIVIDUAL COMPONENT PRICES

2-5 TRANSMITTER \$150	2-7 TRANSMITTER \$180	1-5 TRANSMITTER \$170	1-7 TRANSMITTER \$200
5 RECEIVER \$80	7 RECEIVER \$100	SERVO \$40	SWITCH HARNESS \$5
AC CHARGING CORD \$1	DC CHARGING HARNESS \$4	BATTERY PACK \$15	

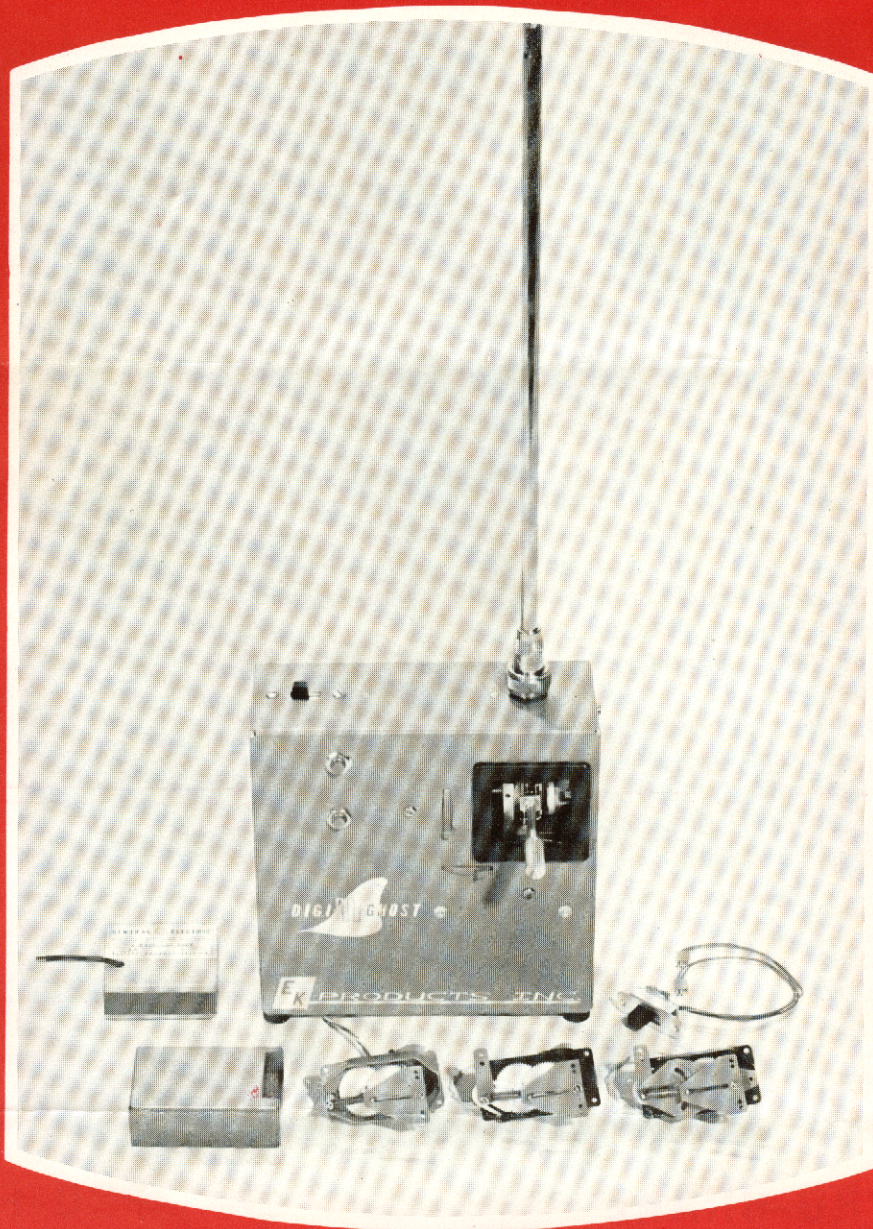
SEE YOUR LOCAL HOBBY SHOP OR DISTRIBUTOR

HI-REL XL-3 SYSTEM



This new HI-REL System for EK is ideal for beginners and for mini-size airplanes. Its extra little and extra light on the budget. The XL-3 offers three controls — two are proportional and motor control is positionable. It has the same HI-REL features as the dynamic LOGICTROL III Mini-System. The complete system includes a single stick transmitter, 3 Mini-Mite servos, a 4.8 v.—500 MA/HR nickel-cadmium battery, receiver, and switching harness. Operation instructions are included. Complete system price is \$250 less charger and transmitter battery pack.

DIGI-GHOST



This new digital system from EK can best be described as a Galloping Ghost gone MODERN. The DIGI-GHOST uses the same HI-REL features found in the LOGICTROL III MINI-SYSTEM.

The DG-1 Model (Low Rate) includes Transmitter, Receiver, RAND LR-3 Actuator, 3.6 v. —600 MA/HR Nickel-Cadmium Battery, and switching harness. Operation instructions are included. Complete System price is \$130 less charger and transmitter battery pack.

The DG-2 Model (High Rate) includes transmitter, receiver, RAND actuators, 3.6—1.0 A/HR Nickel-Cadmium Battery, and switch harness. The rate electronics are enclosed in the elevator actuator. Operation instructions are included. Complete System price is \$180 less charger and transmitter battery pack.

Each transmitter is equipped with switch for high or low rate.

MINI-MITE SERVO

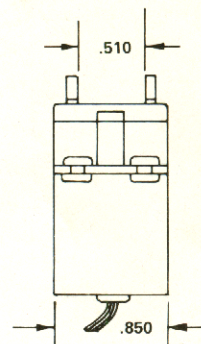
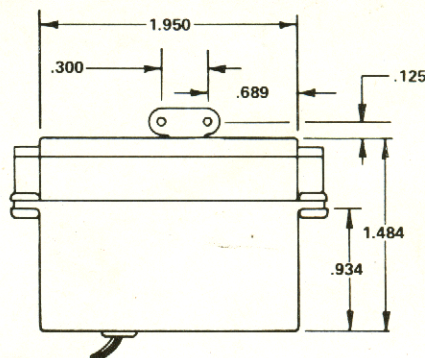
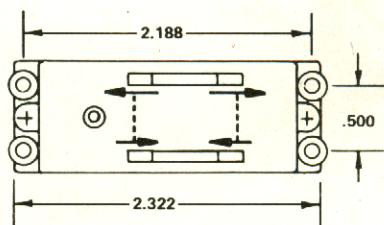


PRICE \$40

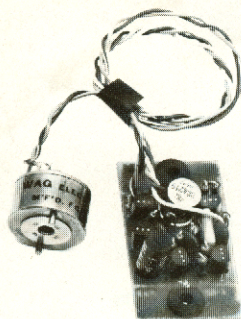
DESIGNED FOR

HI-RELIABILITY
LO-MAINTENANCE
HI-POWER
SMALL SIZE
SIMPLE INSTALLATION

The new Mini-Mite servo with highest reliability and unexcelled resolution was designed with the modeler in mind. Its high impact polycarbonate case gives maximum protection to its new all silicon electronics. A new three wire system with gold plated solderless plug-in connectors adds reliability. Small size and simple installation adds versatility and convenience. The design permits easy replacement of gears and mounting lug section by the modeler. The Mini-Mite servo has dual linear outputs with full 5/8" stroke and 4 lbs. thrust.

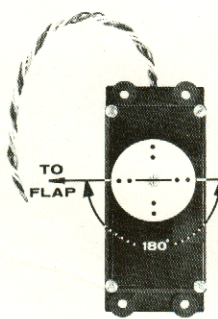


PRO-BRAKE



The Pro-Brake (Proportional-Braking) is for use with the new electric brakes currently on the market, (i.e.—Good, Dubro). PRO-BRAKE is a simple, reliable, low cost device to replace the old style "FULL-ON"—"FULL-OFF" type braking. The PRO-BRAKE allows gradual application of the brakes resulting in smooth controlled stops! Plug "Pro-Brake" into any of the auxiliary channels.

Weight 1 oz.
Power 1 Amp (max.) at 6.0 volts
PRO-BRAKES \$11.00



PRO-FLAP SERVO

Pro-flap Servo effectively locks control surfaces in extreme positions, preventing excessive current drain. This servo may also be used for landing gear and other specialized applications where 180° movement and locking is desirable.

Weight 3 ozs.
Travel 180° (13/16 inch)
MM-2F (LOG. II) \$45.00
MM-3F (LOG. III) \$45.00

EK PRODUCTS INC.
3233 W. EULESS HURST, TEXAS 76053 817/283-4092

FAST FACTORY SERVICE