

1992-93 PRODUCT CATALOG



INTRODUCTION

FOLLOW THE LEADER

JR Remote Control is recognized around the world as the leader in R/C radio design and production of advanced radio control systems. JR radios lead the competition in technological advances and make that technology readily available through extremely user friendly operation. This affordable combination makes JR radios ideal for both beginner and experts to "Follow the Leader!"

LEADERS FOLLOW LEADERS

Team JR member, Chip Hyde has proven himself to be the world's best R/C flyer. Chip is the best and chooses to use dependable, high-quality JR radios. In 1991, Chip and his JR PCM-10 continued to lead the competition by finishing in first place in F3A Pattern Individuals at the World Championships and first in the U.S. Nationals FAI Pattern Championships. Both of these victories follow up his first place finish in the 1990 Tournament of Champions.

Another leader, Kazuyuki Sensui was equally successful with his JR PCM-10. Kazuyuki placed first in F3C Helicopter competition at the 1991 World Championships.

KEEP THE LEAD

Technological innovations like the patented ABC&W Rx circuitry, the PCM-10, and the X-347, the first radio capable of flying three different types of aircraft, positioned JR as a world wide leader. JR maintains the lead in customer satisfaction by offering you the industry's most thorough 1 year warranty, high-quality, rapid turnaround service centers, and affordable upgrade programs.

Every new JR Remote Control Radio System is warranted to the original purchaser for 365 days from the date of purchase against defects in material and workmanship.

JR Service Americas (JRSA), Hobby Dynamics Distributors warranty and repair division, offers the fastest turnaround time in the industry. Warranty work is backed by JR and given top priority in order to complete repairs within 2 working days. Non-warranty work is completed and shipped out within 4-5 working days. No other service center can claim this turnaround time! JR, with the help of JRSA, also provides you with affordable upgrade



JR REMOTE CONTROL
RADIO CONTROL SYSTEMS



programs and helpful technical assistance to keep you on the cutting edge of the latest technological advancements. Some of the JRSA features include:

- Trained professional staff
- On-line computer tracking system for repairs
- Actual cost UPS shipping
- State-of-the-art test equipment

JR Service Americas
4105 Fieldstone Road
Champaign, Illinois 61821
217/355-9511
8:00 am-5:00pm CST

JR Service Americas West
5643 West Charleston
Las Vegas, Nevada 89102
702/870-7102

Club JR is another way JR enthusiasts keep the lead. Members receive a quality newsletter with information about new JR products, JRSA service and repair news, accomplishments of JR flyers, and promotional offers! Other membership benefits include JR T-shirts, jackets, decals and logo items at a discount, a membership packet containing a membership card, booklet, sunglasses, and an annual radio tune-up coupon all for a small annual membership fee!

Club JR



FOLLOW THE LEADER THROUGH THE 90'S

Leading the world in R/C technology requires a commitment to producing the most advanced equipment possible, manufacturing under rigorous standards of quality, and constantly improving these standards. The new R-756 3 Channel Computer Radio is a perfect example of JR challenging the standards set by their top of the line PCM-10 and X-347, aircraft computer radios. This new computer radio features PCM/PPM selectable modulation, digital voltage display, audible battery alarm, and the ability to scroll through functions directly.

Being a leader in the R/C field requires exploration outside of that field to bring in new technology. JR was the first radio equipment manufacturer to blend the computer into the digital proportional radio system and JR is the only manufacturer to borrow space age signal reception technology (the patented ABC&W circuitry) from the satellite industry to answer the demands of operating in the narrow band frequency environment. JR has earned their reputation as a leader in quality and technology by maintaining

high standards throughout the entire product line. In addition to its line of radio systems, JR also makes an extensive line of servos, receivers, electronic speed controls, chargers, gyros, and other radio accessories.

The JR Remote Control line of radio systems and accessories is distributed exclusively by Hobby Dynamics Distributors and can be found in hobby shops everywhere!

Take advantage of JR's years of experience with radio control electronics. Take the lead—"Follow the Leader!"



PCM 10

The JR PCM-10 is the latest breakthrough in a new generation of computer radios. The PCM-10 is unmatched in performance and ease of operation! Its ergonomic design is engineered to fit the human hand perfectly and its touch screen input allows you to easily input data with the touch of a finger on the high resolution, clear contrast panel. With a 7-model memory, you can program up to seven sets of functions and trim settings, making the change from one aircraft to the next as simple as selecting the appropriate model by name/number from the function menu.

FEATURES COMMON TO BOTH HELICOPTER AND PATTERN

- #J10H, #J10C
- Touch screen input
- 10 channels
- Servo reversing on all channels
- Dual rate, EXP and VTR on aileron, elevator and rudder
- End point adjustment on all channels
- Programmable mixing (5)
- Trim rate adjustment
- Trim off-set adjustment
- Servo test function
- Your choice of JR servos
5 with heli, 4 with pattern
- PCM/PPM selectable
- Automatic PCM fail safe
- Lockable keyboard
- 7 model memory
- Model name input
- Integrated timer
- Plug in 700 mAh Tx battery pack
- Compatible with Galaxy 8, Century 7 FM, X-347 and Max FM radio systems.



Description	Servo	Item #	Description	Servo	Item #
PCM-10 Aircraft Mode 2	507	JRP110	PCM-10 Heli Mode 2	507	JRP130
	517	JRP111		517	JRP131
	4021	JRP112		4021	JRP132
	3021	JRP114		3021	JRP134
	9021	JRP115		9021	JRP135
	4031	JRP11		4031	JRP13

PCM-10 HELICOPTER

- Collective cyclic pitch mixing
- Revolution mixing for any flight mode, hover or zero pitch point
- Throttle hold
- Throttle and pitch curve adjustments
- Auto dual rate (aileron/elevator/rudder)
- Stunt trim adjustments
- Inverted flight system
- Rudder to throttle mix
- 5 JR servos of your choice
- 1000 mAH Rx battery pack
- High output charger

PCM-10 PATTERN

- Wing type selection (V-tail/elevon/flaperon)
- Snap roll (4 directions)
- Auto rudder dual rate
- Elevator to flap mixing
- Landing system with programmable elevator/flap/throttle preset values
- Variable propellor pitch mixing
- 4 JR servos of your choice
- 700 mAH Tx battery pack
- 550 mAH airborne battery pack
- NiCd charger

TOUCH SCREEN INPUT

The PCM-10 touch screen system is the most user friendly method for programming your radio. Just a touch of your fingertip on the display panel calls up the function you need. You'll see all the necessary data displayed on the screen and by simply touching the desired box, you are able to change the operation.



X - 3 4 7

THE RADIO OF THE FUTURE

The JR X-347 offers you the quality and flexibility you expect from any JR radio. Available with either the PCM or FM flight pack, Mode 1 or Mode 2, the X-347 can fly a helicopter, airplane or glider. No matter which flight pack is purchased initially, additional packs are available to switch to a different type of aircraft. Both PCM and FM versions of the X-347 flight packs are available with your choice of the most popular JR servos on the market today!

With the touch of a few keys, unique data can be input and memorized for up to 4 different models. And it's all enclosed within a most comfortable bio-design casing.

The X-347 makes training a breeze with the very first programmable trainer function. This revolutionary system allows the trainee to control one function at a time; once proficient with it, new ones can be accepted until the trainee has full control of the model. This means safer, easier operation for all three types of aircraft!

FEATURES COMMON TO HELI, PLANE, AND GLIDER

- Electronic sub-trim (all channels)
- Dual rates (elevator/aileron/rudder)
- Exponential
- Servo reversing (all channels)
- End point adjustment (ATV)
- Programmable mixing
- Fail safe (PCM)
- Programmable trainer function (PTF)
- Stop watch/countdown timer
- Model select (4)
- Model name input
- Modulation selectable (PCM/PPM)
- Aircraft type selection (helicopter, pattern, glider)
- Copy function
- Mode I/Mode II available



Description	Servo	Item #	Description	Servo	Item #	Description	Servo	Item #
PCM Aircraft Mode 2	517	JRP71	PCM Heli Mode 2	517	JRP73	FM Aircraft Mode 2	517	JRP77
	507	JRP710		507	JRP730		507	JRP770
	4031	JRP711		4031	JRP731		4031	JRP771
	4021	JRP712		4021	JRP732		4021	JRP772
	3021	JRP714		3021	JRP734		3021	JRP774
	9021	JRP715		9021	JRP735		9021	JRP775
PCM Glider Mode 2			PCM Glider Mode 2	901	JRP75	FM Heli Mode 2	517	JRP79
							507	JRP790
							4031	JRP791
							4021	JRP792
							3021	JRP794
							9021	JRP795

X-347 HELICOPTER

- End point adjustment (all channels)
- Throttle curves (3 types) (5 points adjustable with hovering throttle)
- Pitch curve (4 types) (5 points adjustable with hovering pitch)
- Throttle hold
- Inverted flight
- Revolution mixing (2 settings)
- Acceleration mixing
- 4 model memory
- Programmable mixing (1)

X-347 GLIDER

- Elevator to flap mixing
- Flap to elevator mixing
- Differential aileron
- Flaperon
- Flap to aileron mixing
- Crow (2 positions)
- Ailerons to flap mixing
- Programmable mixing (4 types)
- 4 model memory
- V-tail
- Dual flaps

X-347 PATTERN

- Elevator to flap mixing
- Landing system (spoiler link/auto selectable)
- Snap roll (4 directions)
- Programmable mixing (4 types)
- Wing mix (flaperon/elevon/normal)
- Differential aileron
- 4 model memory

SELECT THE CHANNEL YOU WANT TO USE

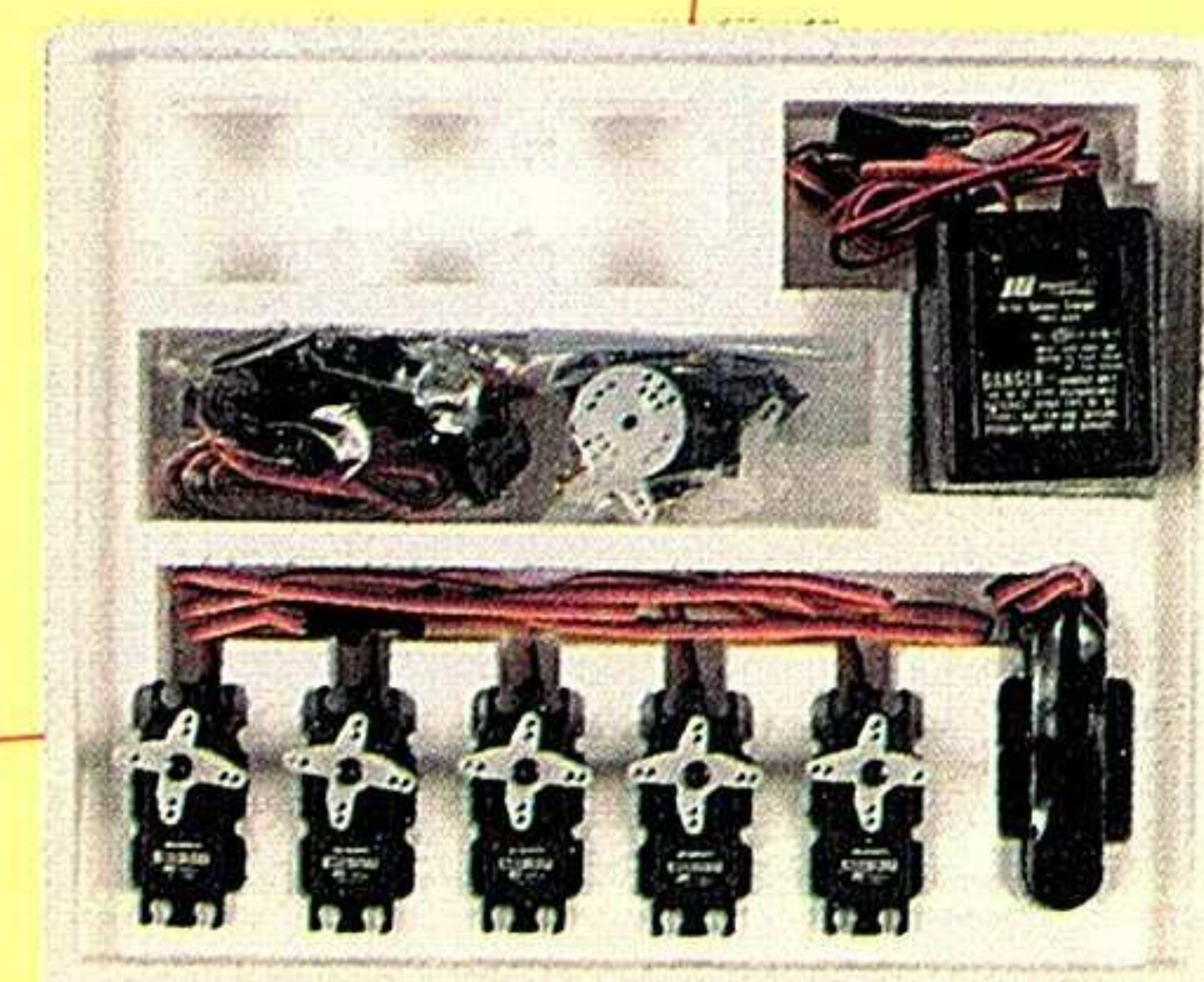
Each X-347 comes with one JR 7-channel RF pack; additional RF packs are also sold separately for use with other models. Every pack includes a 1991 approved narrow-band receiver, a transmitter module, and a frequency flag. They are available in 72, 50, and 53 MHz channels, and are compatible with all three types of aircraft. When you order an X-347 system, we'll include an RF pack that operates on the channel you specify.

SELECT AN AIRBORNE PACK TO FIT YOUR AIRCRAFT

The X-347 also comes with one airborne pack. These packs are specially designed for use with airplanes, helicopters, or gliders – you specify the kind you need. Additional packs are also sold separately, for use with other models. The helicopter airborne pack includes five servos (of your choice) and a 1000 mAH battery pack; the airplane pack comes with four servos (of your choice) and a 550 mAH battery pack; and the glider pack has two (2) JRS901 servos and a 550 mAH battery pack. Each airborne pack includes all the necessary servo accessories – *switch harness, *aileron extension, *charge receptacle, charger (high rate for helicopters), *DSC cord, *3 servo trays, and a smooth throttle ratchet for use with the helicopter system. The future of flight is in your hands.

*Not included in 507 configuration

X-347 heli airborne pack

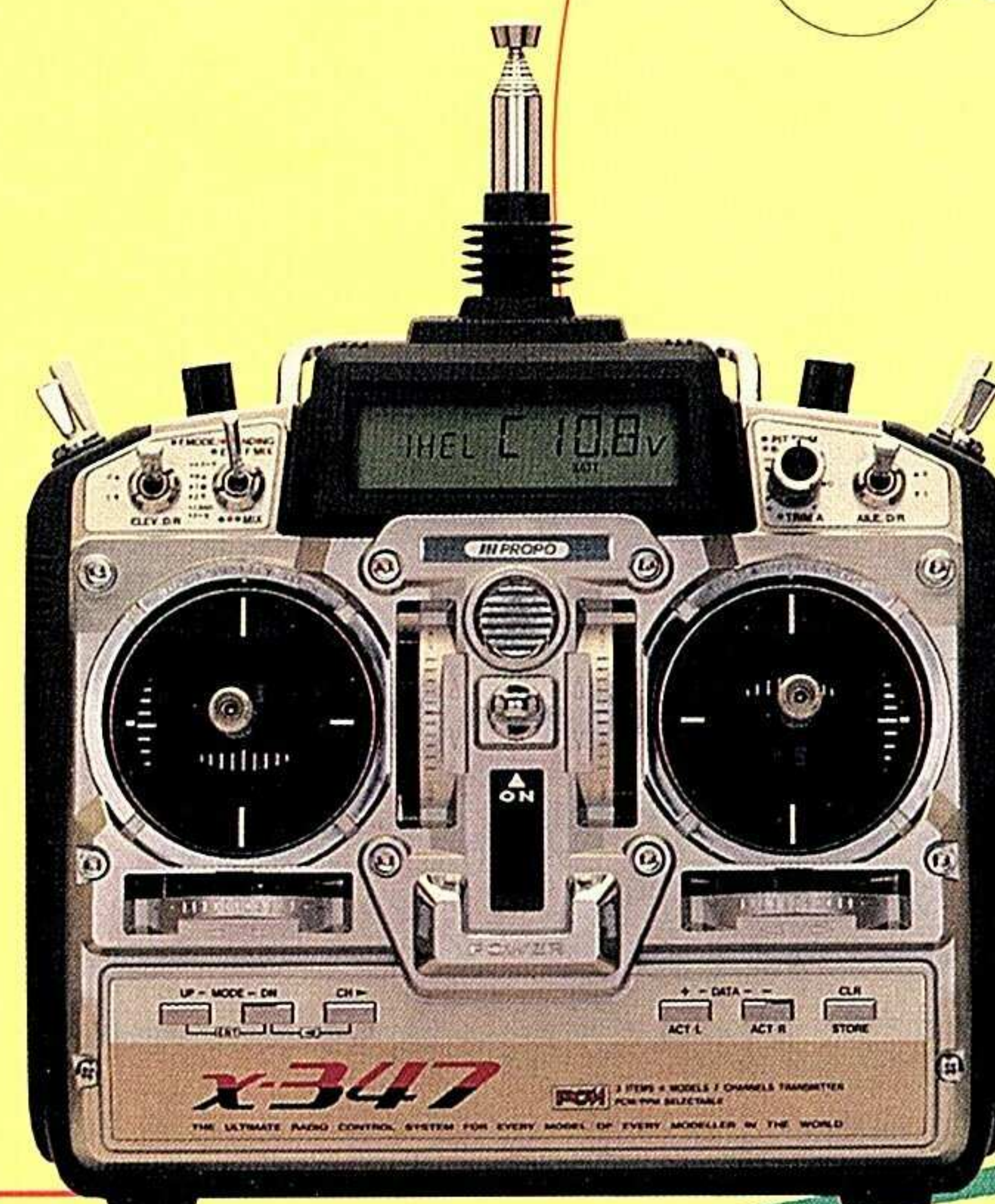


RADIOS

JR is dedicated to designing and making user friendly radio systems which utilize the latest in state of the art technological advancements. Much time and effort has gone into research and development, product design and market analysis. These efforts bring you radios that are easy to use, and also offer the features which you, the consumer, have requested. The technological evolutions created by JR can be found on every JR radio from the entry level Max 4 all the way up to the fully programmable PCM-10.

JR is dedicated to the helicopter enthusiast. State of the art technological advances are utilized in each JR helicopter radio.

Therefore, it shouldn't come as any surprise to you that two out of the top 3 finishers at the F3C Helicopter World Championships were flying JR radios. While you may not be ready to compete in the World Championships JR offers a user friendly radio which is perfect for your flying style.



X-347 HELICOPTER

- End point adjustment (all channels)
- Throttle curves (3 types)
(5 points adjustable with hovering throttle)
- Pitch curve (4 types)
(5 points adjustable with hovering pitch)
- Throttle hold
- Inverted flight
- Revolution mixing (2 settings)
- Acceleration mixing
- 4 model memory



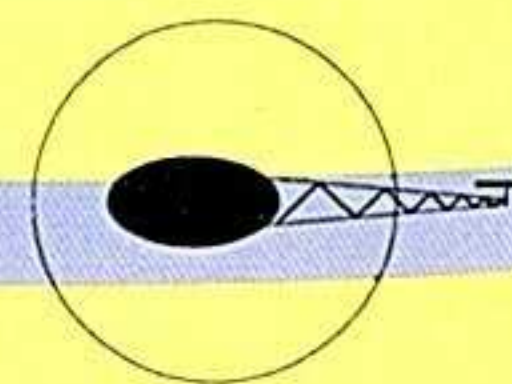
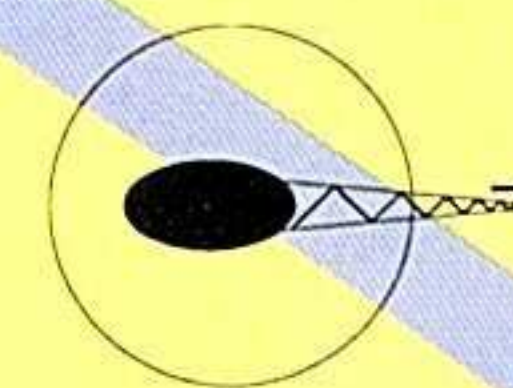
PCM 10 HELICOPTER

- Collective cyclic pitch mixing
- Revolution mixing for any flight mode, or hover zero pitch point
- Throttle hold
- Throttle and pitch curves
- Auto dual rate (aileron/elevator/rudder)
- Stunt trim adjustments
- Inverted flight system
- Rudder to throttle mixing
- 5 JR servos of your choice
- 1000 mAh Rx battery pack
- High output charger



MAX 6 COMPUTER PCM HELICOPTER

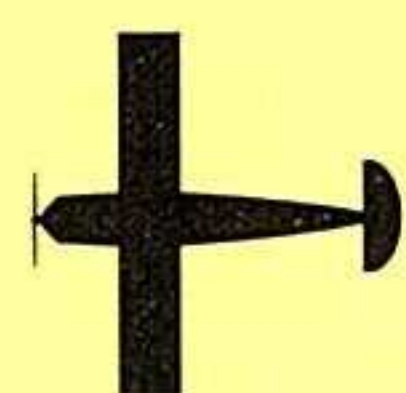
- #JRP65 Mode II, #JRP64 Mode I
- ABC&W 7 channel PCM receiver
- 5 JR 501 servos
- Tx & 1000mAH airborne NiCds
- High output NiCd charger
- Complete servo accessories and hardware
- Liquid crystal display
- Servo reversing (all channels)
- Dual rates (aileron/elevator/rudder)
- Exponential (aileron/elevator/rudder)
- Interference/battery fail safe
- Electronic subtrims (all channels)
- ATS system
- ATV (all channels)
- Battery alarm
- Throttle hold
- Throttle curves (3 types)
- Pitch curves (3 types)



MAX 5 FM HELICOPTER

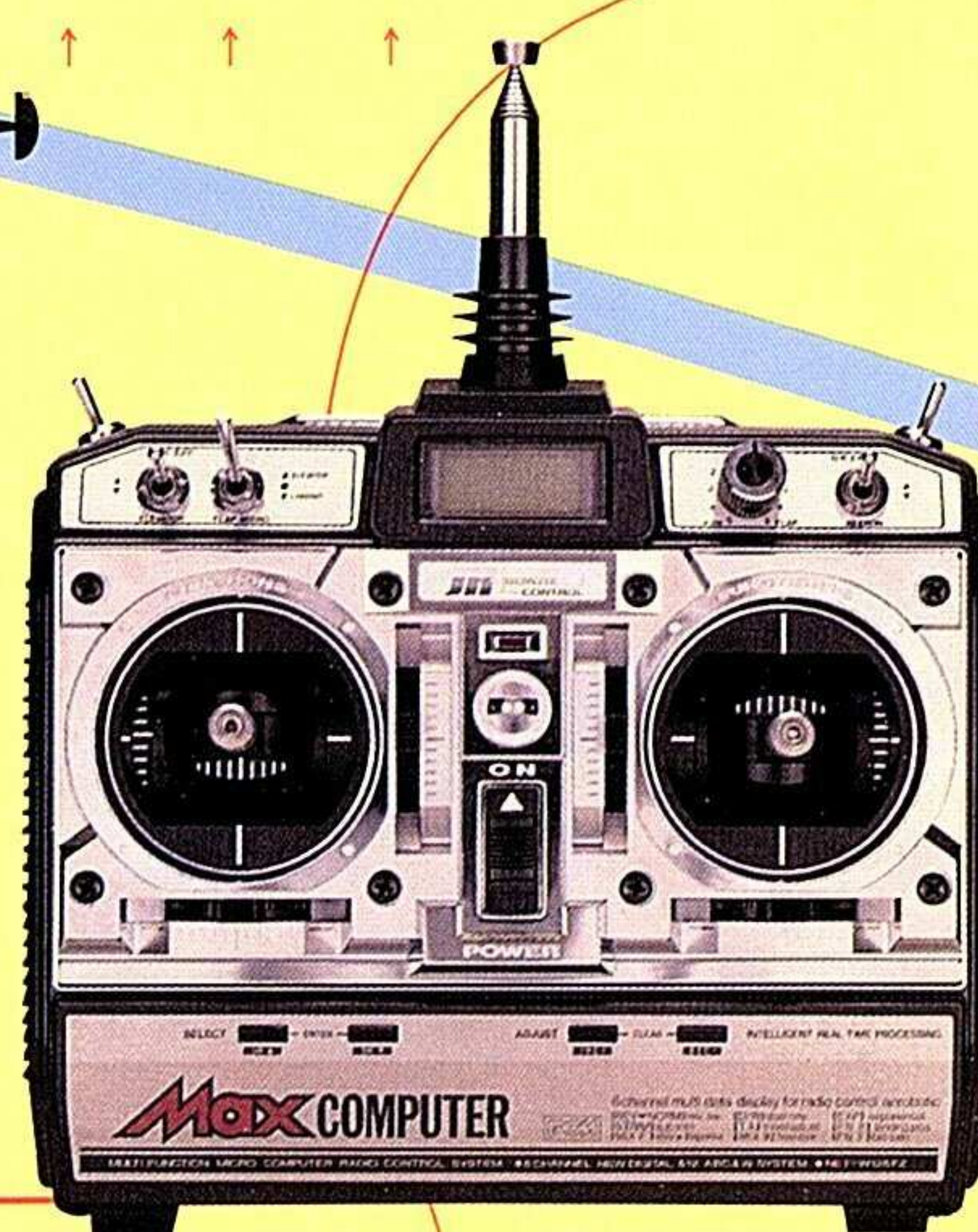
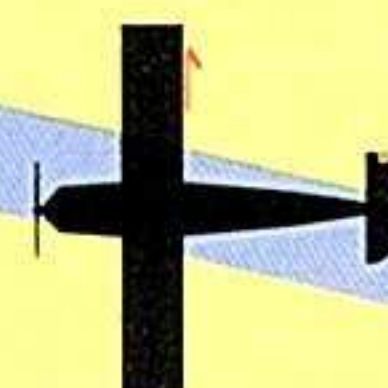
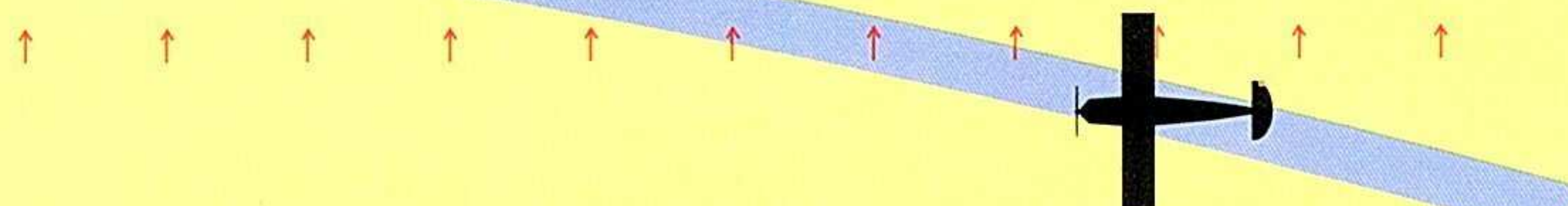
- | | |
|---|----------------------------------|
| • #JRP53 Mode II, #JRP52 Mode I | • Servo reversing (all channels) |
| • ABC&W 7 channel FM receiver | • Dual rates (aileron/elevator) |
| • 5 JR 507 servos | • ATS system |
| • Plug in Tx battery pack | • Throttle hold |
| • High output NiCd charger | • Adjustable pitch trim |
| • Complete servo hardware and accessories | • Adjustable pitch curve |

RADIOS



The top quality of JR remote control was evident on this year's competition circuit. For example, a Max 4 FM was used by Craig Grunkmeyer to win first place in the Quicke 500 class at the 1991 U. S. Nationals. Chip Hyde, who also placed won first at the U. S. Nationals (FAI pattern) used a PCM-10. The PCM-10 also aided Chip in his first place finish in the World Championships in Wangaratta, Australia – the first time an American has finished first since 1967!

So whether you choose a Max 4, a PCM-10 or anything in between you can be assured you will be receiving a top-notch radio system.



MAX 6 COMPUTER PCM PATTERN

- #JRP63 Mode II, #JRP62 Mode I
- ABC&W 7 channel PCM receiver
- 4 JR 501 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories & hardware
- Liquid crystal display
- Servo reversing (all channels)
- Dual rates (aileron/elevator/rudder)
- Exponential (aileron/elevator/rudder)
- Interference/battery fail safe
- Electronic subtrims (all channels)
- ATV (all channels)
- Battery alarm
- Elevator/flap mixing
- Program mix for mixing 2 channels
- Landing system



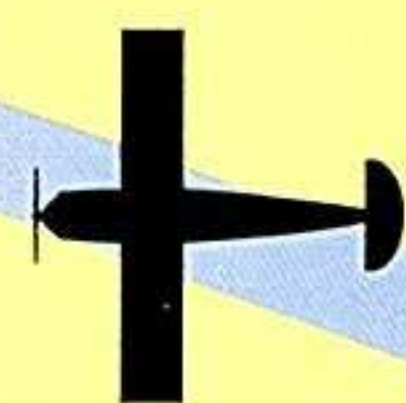
X-347 PATTERN

- 4 JR servos of your choice
- Elevator to flap mixing
- Landing system (spoiler link/auto selectable)
- Snap roll (4 directions)
- Program mixing (4 types)
- Wing mix (flaperon/elevon/normal)
- Differential aileron
- 4 model memory



PCM-10 PATTERN

- 4 JR servos of your choice
- 700 mAH Tx battery
- 550 mAH airborne battery pack
- NiCd charger
- Wing type selection (V-tail/elevon/flaperon)
- Snap roll (4 directions)
- Auto rudder dual rate
- Elevator to flap mixing
- Landing system with programmable elevator/flap/throttle preset values
- Variable propellor pitch mixing



MAX 6 FM PATTERN

- #JRP61 Mode II, #JRP60 Mode I
- ABC&W 7 channel FM receiver
- 4 JR 507 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories and hardware
- Servo reversing (all channels)
- Dual rates (aileron/elevator)
- 3 position flap switch
- Retract switch
- Trainer system



MAX 5 PCM PATTERN

- #JRP54 Mode II
- ABC&W 7 channel PCM receiver
- 4 JR 507 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories and hardware
- Servo reversing (all channels)
- Dual rates (aileron/elevator)
- Interference/battery fail safe



MAX 5 FM PATTERN

- #JRP51 Mode II, #JRP50 Mode I
- ABC&W 7 channel FM receiver
- 4 JR 507 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories and hardware
- Dual rates (aileron/elevator)
- Retract switch

0 0 0 0 0 0

MAX 4 AM PATTERN

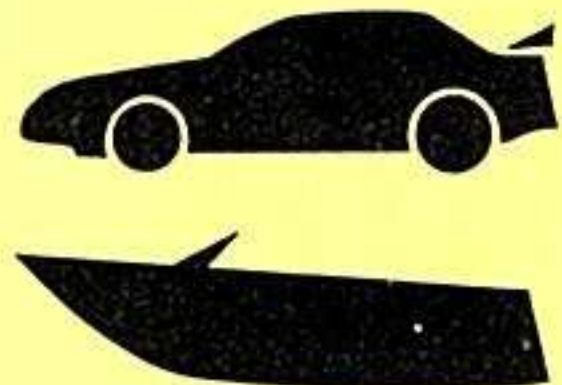
- #JRP40 Mode II
- ABC&W 4 channel AM receiver
- 3 JR 507 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories and hardware
- Servo reversing (all channels)



MAX 4 FM PATTERN

- #JRP42 Mode II, #JRP41 Mode I
- ABC&W 7 channel FM receiver
- 3 JR 507 servos
- Plug in Tx battery pack
- Tx and airborne NiCds
- NiCd charger
- Complete servo accessories and hardware
- Servo reversing (all channels)
- Trainer system

RADIOS



Whether you have a passion for cars or boats, JR offers a variety of high quality 2 channel radios designed to put you out in front of the competition! JR makes quality and dependability most affordable with the JR HD2C AM and the high-performance Max 2 AM, featuring the exclusive ergonomic "bio shape" grip of the popular Max series.

For those of you who like to take the wheel, JR offers you an unbeatable combination of precision control and multiple features in three different wheel radios. Available in both AM and PCM version, the Alpina wheel radios offer you fast and easy set up features in a pistol grip design that gives you the kind of control and feel you want.

Following the lead of the PCM-10 and X-347, JR's top of the line aircraft computer radios, the R-756 surface radio features PCM/PPM selectable modulation; digital voltage display, audible battery alarm, and the ability to scroll through functions directly. Although most car and truck drivers will use only 2 channels (throttle and steering) the R-756 also incorporates a proportional third channel as well.



- R-756**
- 3 channel computer programmable transmitter
 - Memory for 6 models
 - Auto start and stop 75 lap timer
 - PCM/PPM selectable
 - PCM fail safe
 - Audible and visual battery alarm
 - Digital voltage display
 - 99 minute uptimer with 1 minute interval alarm
 - Back up error indicator
 - Selectable functions for grip dials
 - Trim memory for each model with audible and visual warning
 - Electronic sub-trims
 - Throttle and steering endpoint adjustments
 - Adjustable exponential for throttle and steering
 - Model and name input
 - Uses plug in frequency module

R-756

Description	Item #
TX/RX without servos (FM)	JRP30
TX/RX without servos (PCM)	JRP31
TX/RX with 2-507 servos (FM)	JRP32
TX/RX with 2-507 servos (PCM)	JRP33
TX/RX with 1-2135 servo (FM)	JRP34
TX/RX with 1-2135 servo (PCM)	JRP35
TX/RX with 1-3025 servo (FM)	JRP36
TX/RX with 1-3025 servo (PCM)	JRP37

R-756 Accessories

Description	Item #
223 RX FM Receiver	JRP223
233 RX PCM Receiver	JRP233
Nicad Transmitter Battery	J520004
Transmitter Charger	JRC221

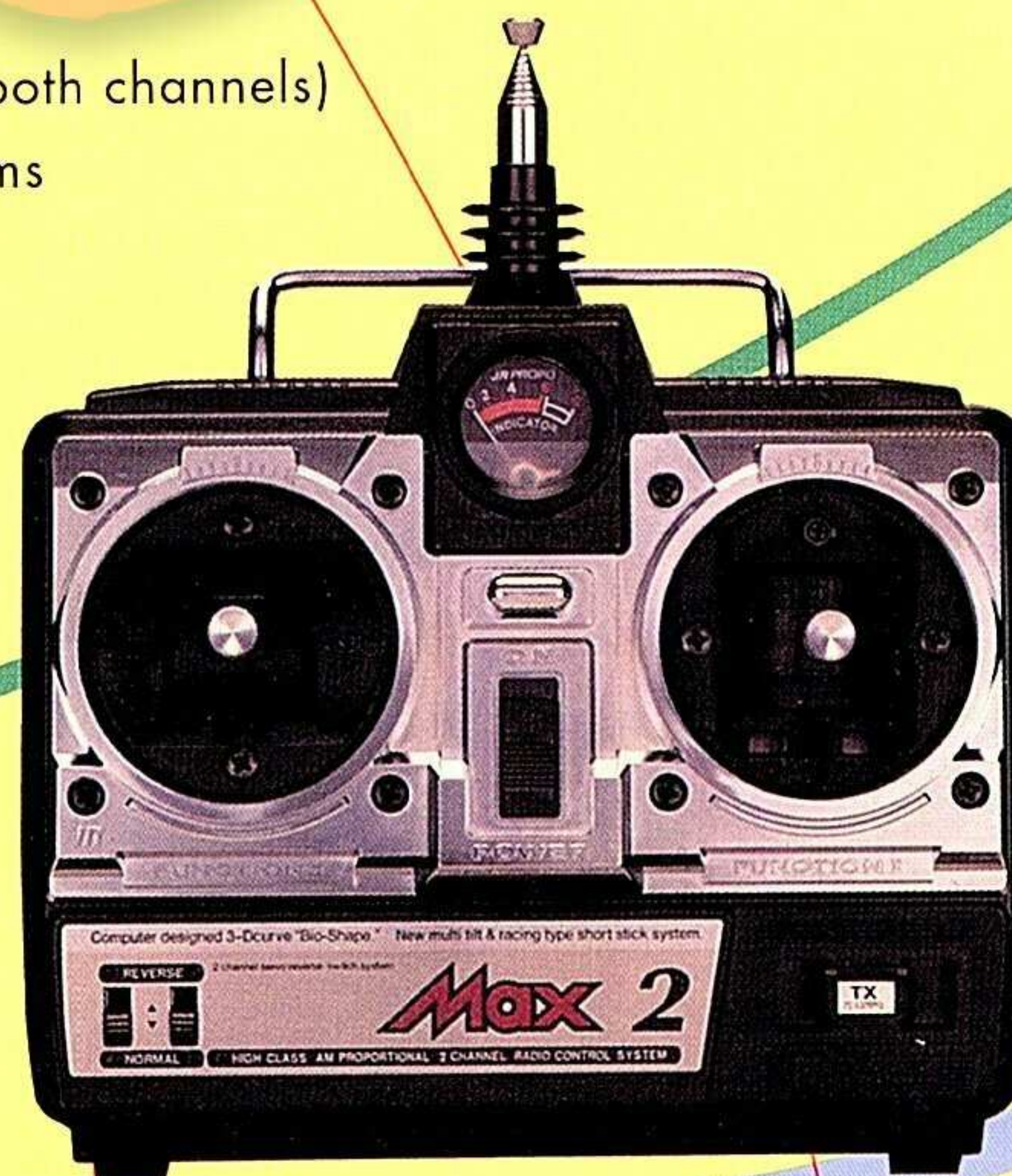


ALPINA PCM WHEEL

- #J2PAB
- ABC&W receiver with BEC
- 2 JR 507 servos
- BEC switch harness
- Battery holder
- Servo reversing (both channels)
- Variable rate steering
- Throttle and steering trims
- Fail safe
- Adjustable throttle neutral point

ALPINA AM WHEEL

- #J2AAB
- ABC&W receiver with BEC
- 2 JR 507 servos
- BEC switch harness
- Battery holder
- Servo reversing (both channels)
- Variable rate steering
- End point adjustments (both channels)
- Throttle and steering trims
- Charge jack

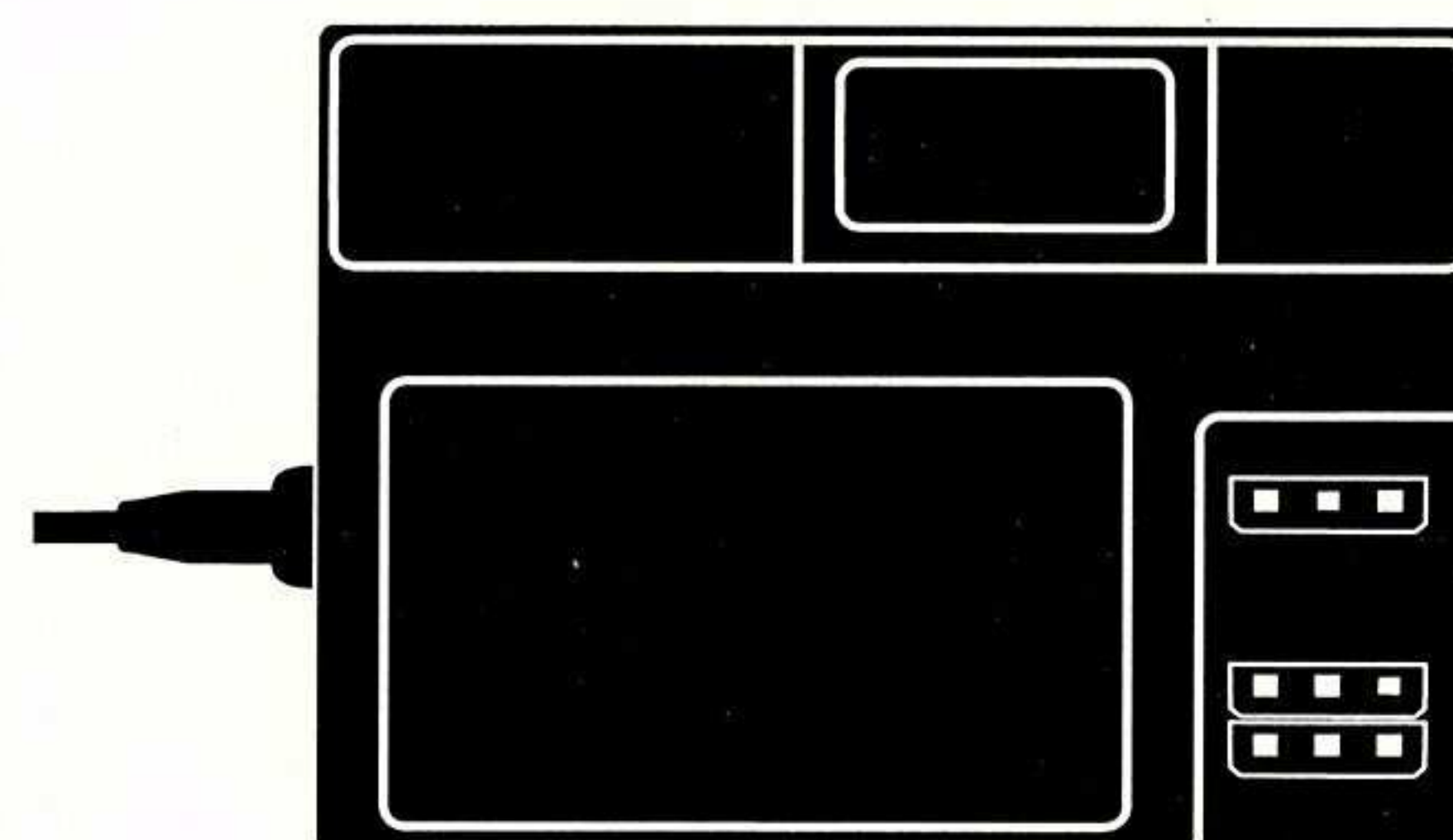


HD2C AM

- #JHD2C
- ABC&W receiver with BEC
- 2 standard JR servos
- Trims (both channels)

MAX 2 AM

- #J2AMB
- ABC&W receiver with BEC
- 2 JR 507 servos
- BEC switch harness
- Multi-tilt racing type short stick system
- Battery holder
- Servo reversing (both channels)



receiver 722

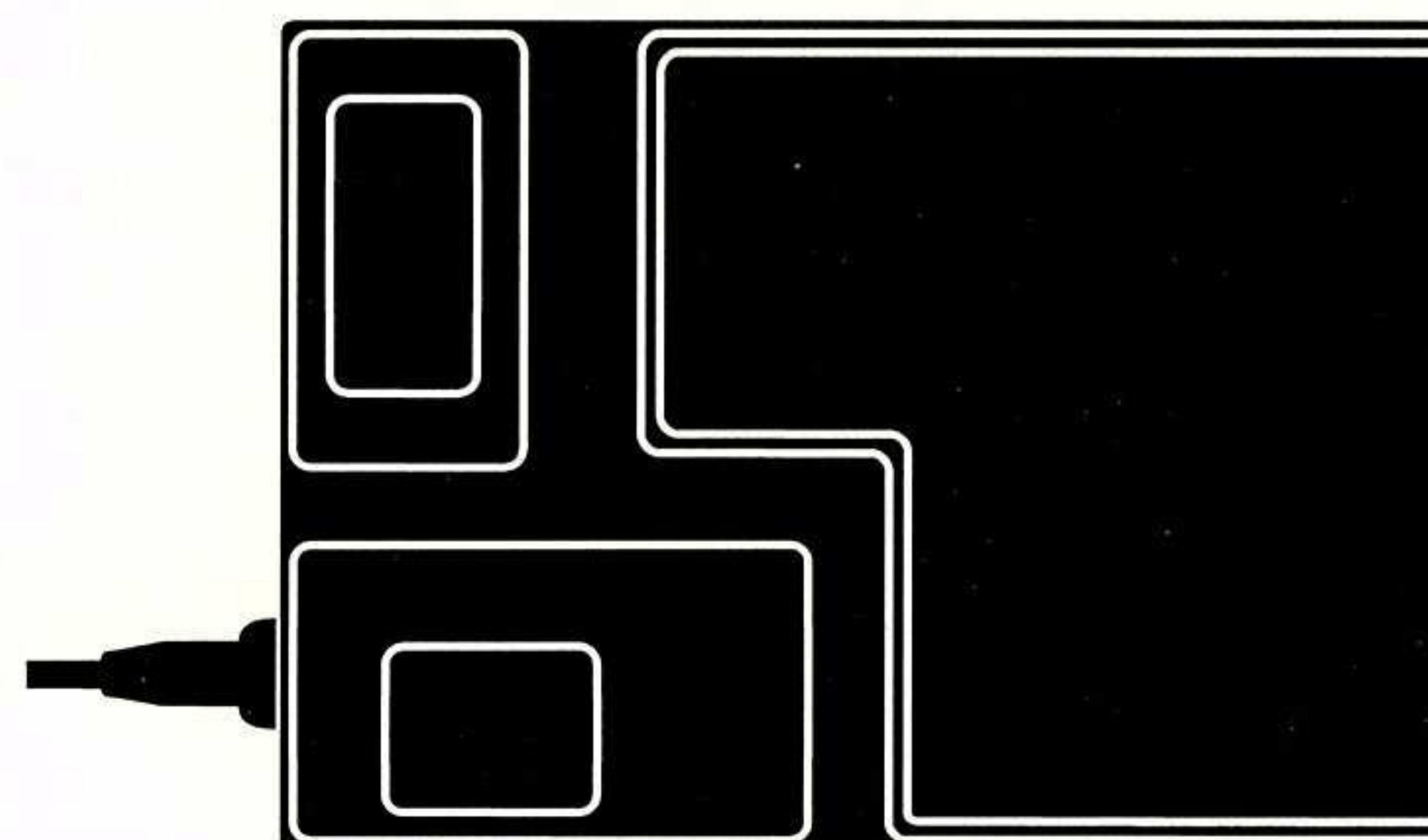
ADVANCED RECEIVER CIRCUITRY

In 1991, the AMA introduced new guidelines for narrower channel spacing. JR took the lead by having all their receivers tested in independent labs. JR's 10 KHZ band-pass performance was certified, all AMA guidelines passed, and all JR receivers are now included in the *AMA RC Equipment Certified List*.

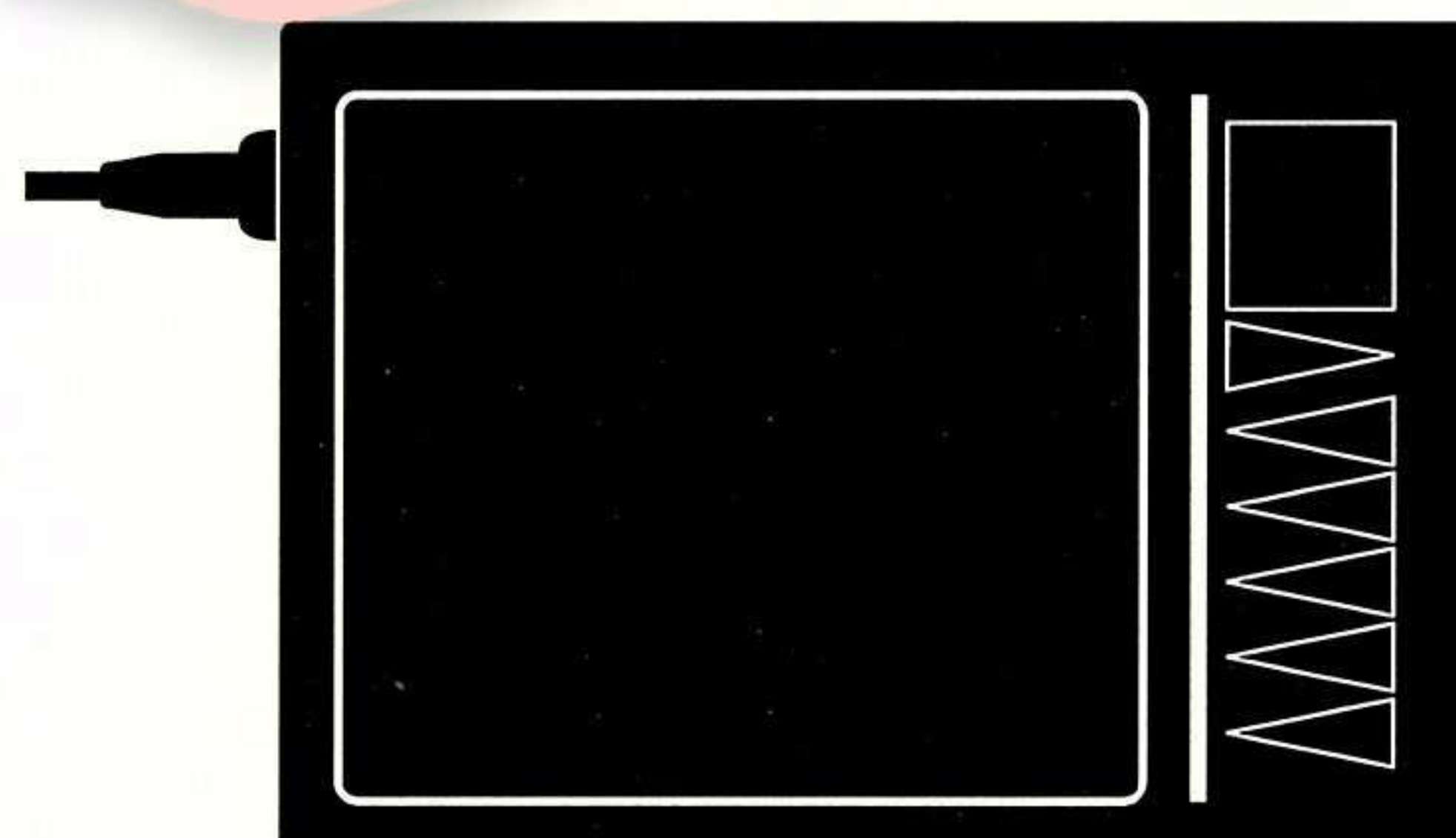
ABOUT ABC&W™

Back in 1986, JR designed a revolutionary electronic circuit called ABC&W™ (Anti-Blocking, Cross-Modulations and Window). JR receivers, utilizing ABC&W™ circuitry, have advantages over both single and dual conversion receivers. ABC&W™ uses a very small electronic window, and any signal that is distorted or off-frequency won't fit through the window and is immediately rejected. Then, the new signal is cleaned up, amplified, and sent through the window again. And again. And again. Until all that is left is the pure signal coming from your transmitter. And it all happens so quickly that you won't notice any delay. ABC&W™ receivers are smaller and lighter than dual conversion receivers. There are fewer parts in an ABC&W™ receiver, and that means fewer repairs.

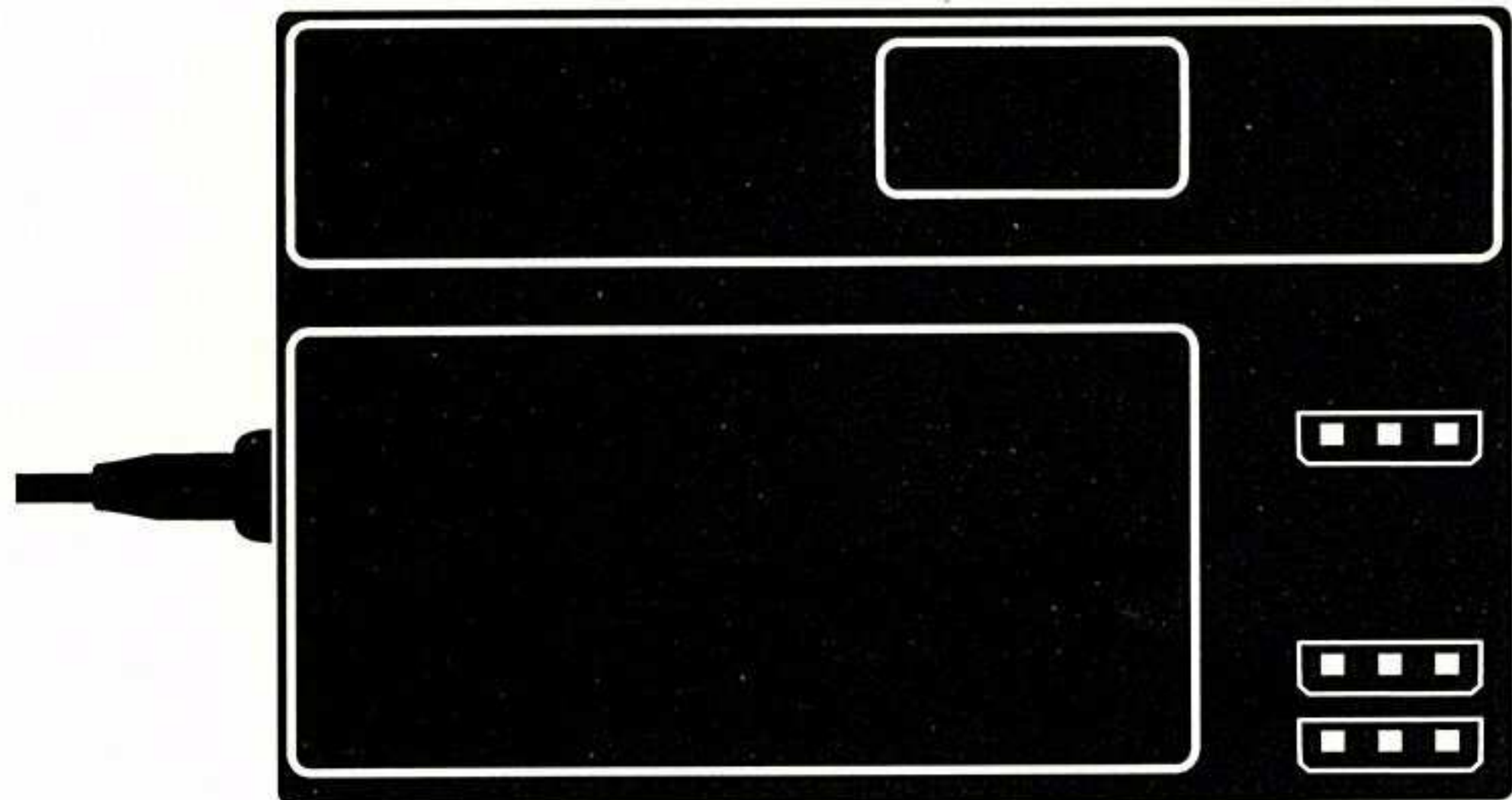
You may be wondering why everyone isn't using ABC&W™ technology. The reason is that it was developed exclusively by JR, and you'll only find it in JR receivers. With all the different frequencies being used at flying fields today, interference or cross-modulation is a big problem, but not with JR's signal selective ABC&W™ receivers.



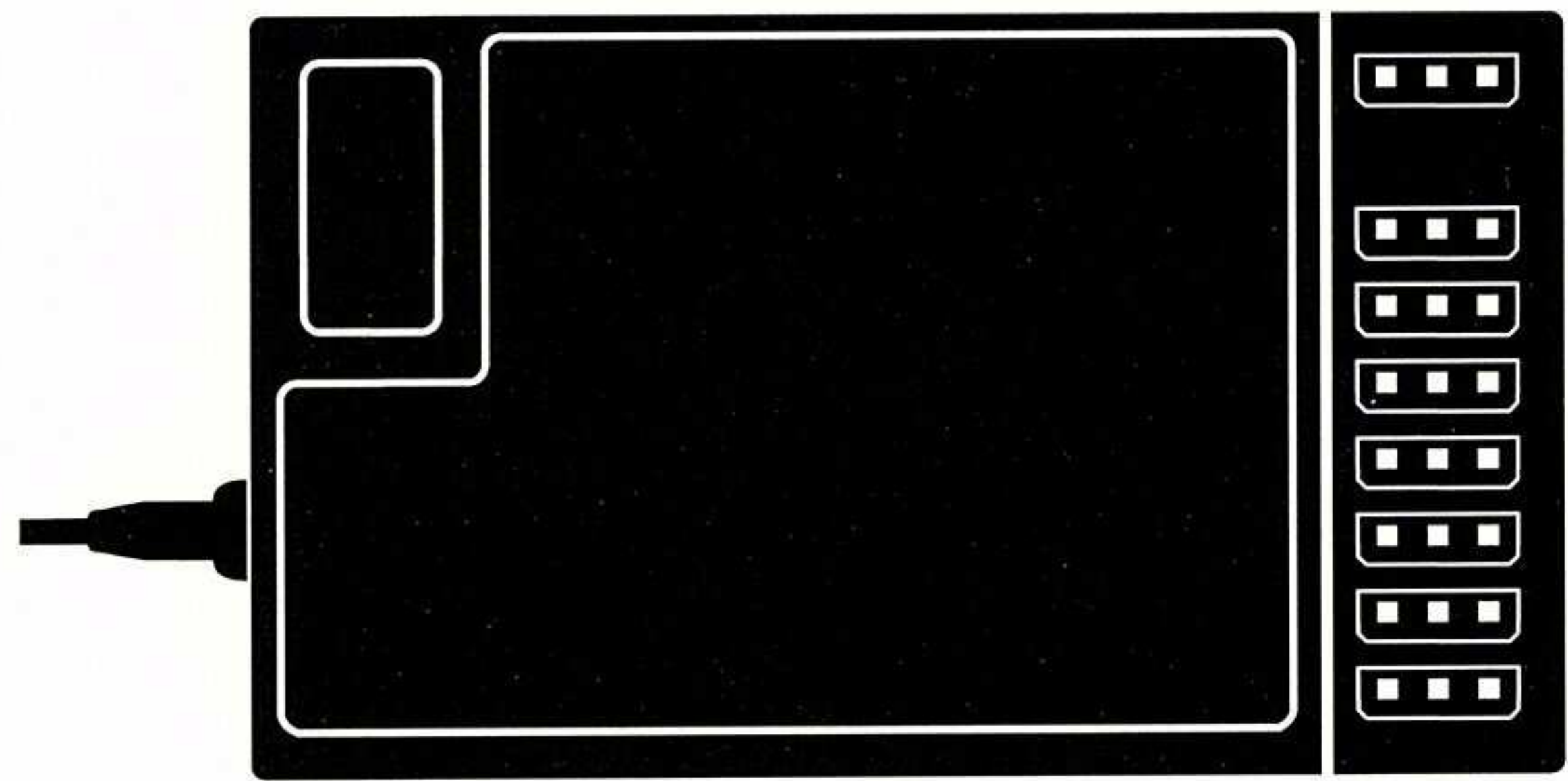
receiver 527
receiver 529
receiver 627X
receiver 627XZ



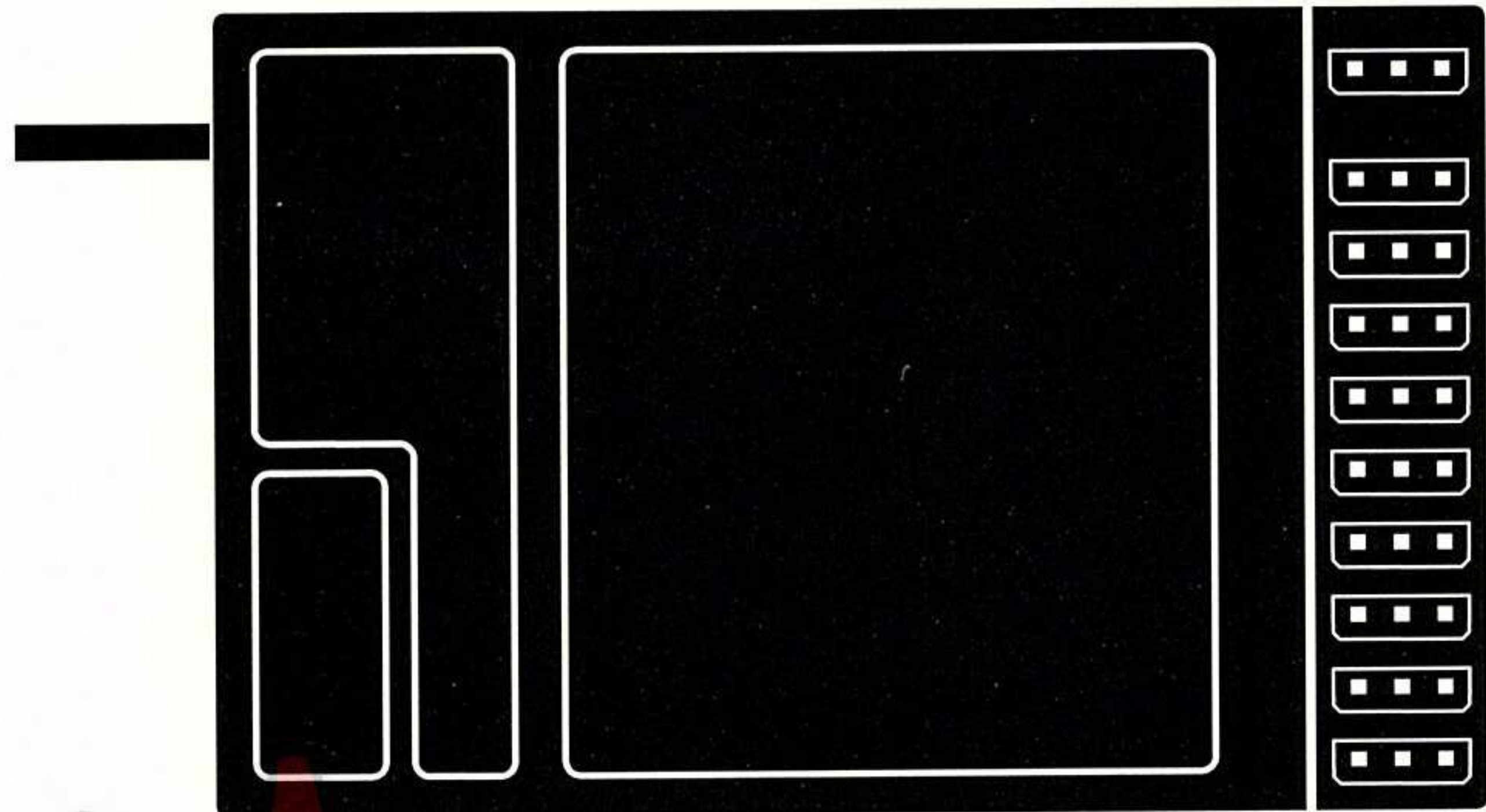
receiver 223
receiver 233
receiver 226
receiver 236



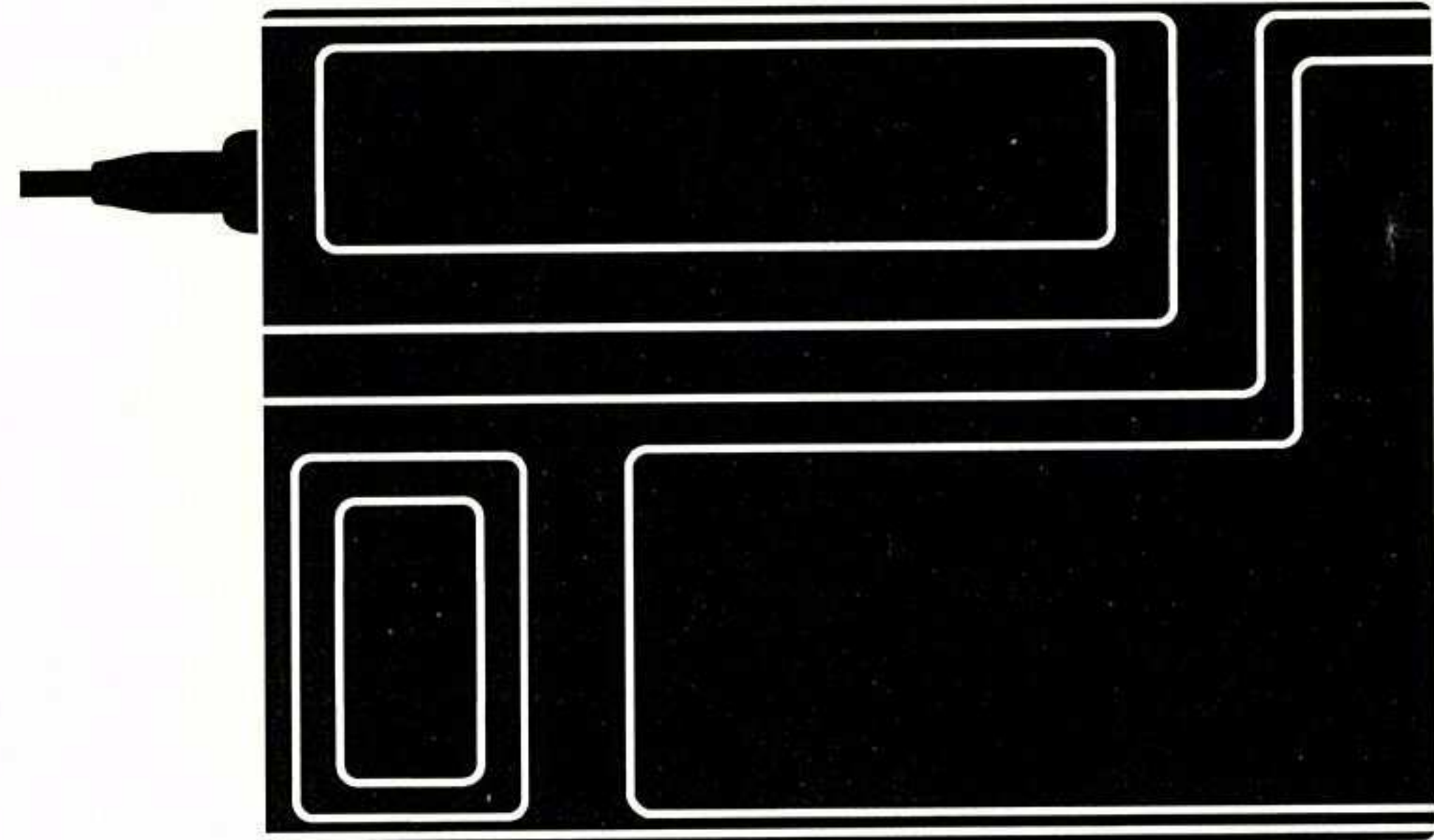
receiver 854
receiver 832
receiver 822



receiver 327



receiver 229
receiver 329



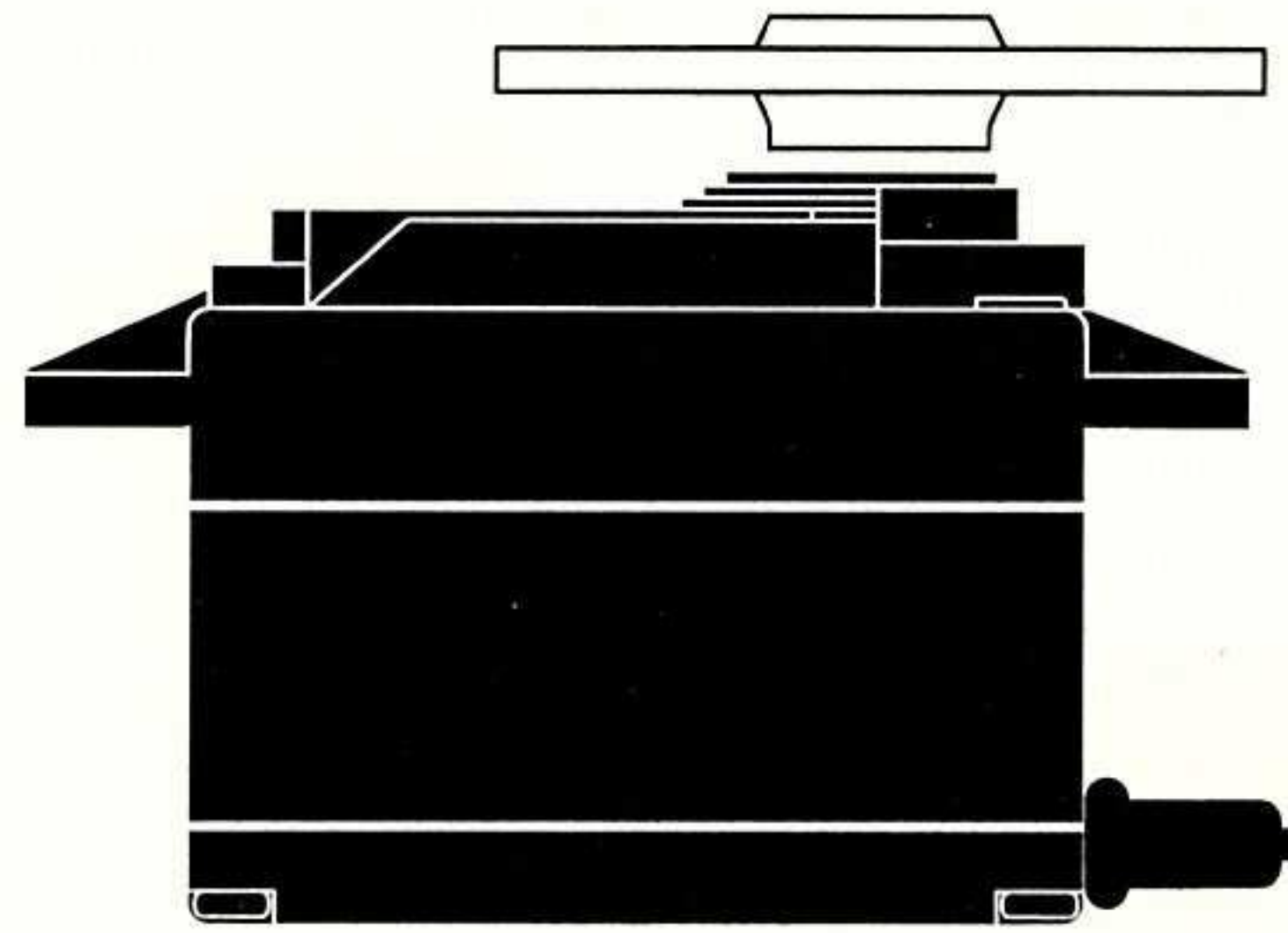
receiver 910

Item #	Model #	Description	AM	FM	27	50	53	72	75	Mod Type	Weight	Height	Length	Width
JRP722	NER722X	2 ch Mirco ABC&W, Circus 2, Winner 2	•		•			•	•	PPM	1.00	0.82	1.77	1.27
JRP822	NET822X	2ch Mirco BEC ABC&W—Fits all non-PCM 2 ch	•		•				•	PPM	1.26	0.82	2.00	1.29
JRP832	NER832X	2 ch BEC ABC&W Alpina PCM, Beat 2Cx PCM	•		•				•	PCM	1.34	0.82	2.00	1.29
JRP854	NER854	4 ch ABC&W Max 4 AM	•			•	•	•		PPM	1.20	0.82	2.00	1.29
JRP327	NER327X	All FM, PCM 10, G8, X-347, Max 6 PCM (if put into PPM)		•		•	•	•		PPM	1.58	0.82	2.44	1.42
JRP527	NER527X	All FM, PCM 10, G8, X-347, Max 6 PCM (if put into PPM)		•		•	•	•		PPM	1.58	0.82	2.00	1.42
JRP627	NER627X	Century 7 PCM and PCM 9 Non-"G" Series only		•		•	•	•		PCM	1.55	0.82	2.00	1.42
JRP627Z	NER627XZ	Max 5 PCM, Max 6 PCM, G8, PCM 10, X-347, PCM 9-"G" Series		•		•	•	•		PCM	1.55	0.82	2.00	1.42
JRP329	NERJ329P	Max 5 PCM, Max 6 PCM, G8, PCM 10, X-347, PCM 9-"G" Series		•		•	•	•		PCM	2.40	0.88	2.77	1.74
JRP529	NER529X	All FM, PCM 10, G8, X-347, Max 6 PCM (if put into PPM)		•		•	•	•		PPM	1.60	0.82	2.00	1.42
JRP229	NERJ229P	Century 7 PCM and PCM 9 Non-"G" Series only		•		•	•	•		PCM	2.40	0.88	2.76	1.74
JRP910	NER910XZ	Max 5 PCM,Max 6 PCM, G8, PCM 10, X-347, PCM 9-"G" Series		•		•	•	•		PCM	2.10	0.84	2.10	1.50
JRP223	NER223	3 ch ABC&W R-756 FM		•	•				•	PPM	1.00	0.55	2.06	1.43
JRP233	NER233	3 ch ABC&W R-756 PCM		•	•				•	PCM	1.00	0.55	2.06	1.43
JRP226	NER226	All FM, PCM 10, G8, X-347,Max 6 PCM (if put into PPM)		•		•	•	•		PPM	NA	0.55	2.06	1.43
JRP236	NER236	Max 5 PCM,Max 6 PCM, G8, PCM 10, X-347, PCM 9-"G" Series		•		•	•	•		PCM	NA	0.55	2.06	1.43

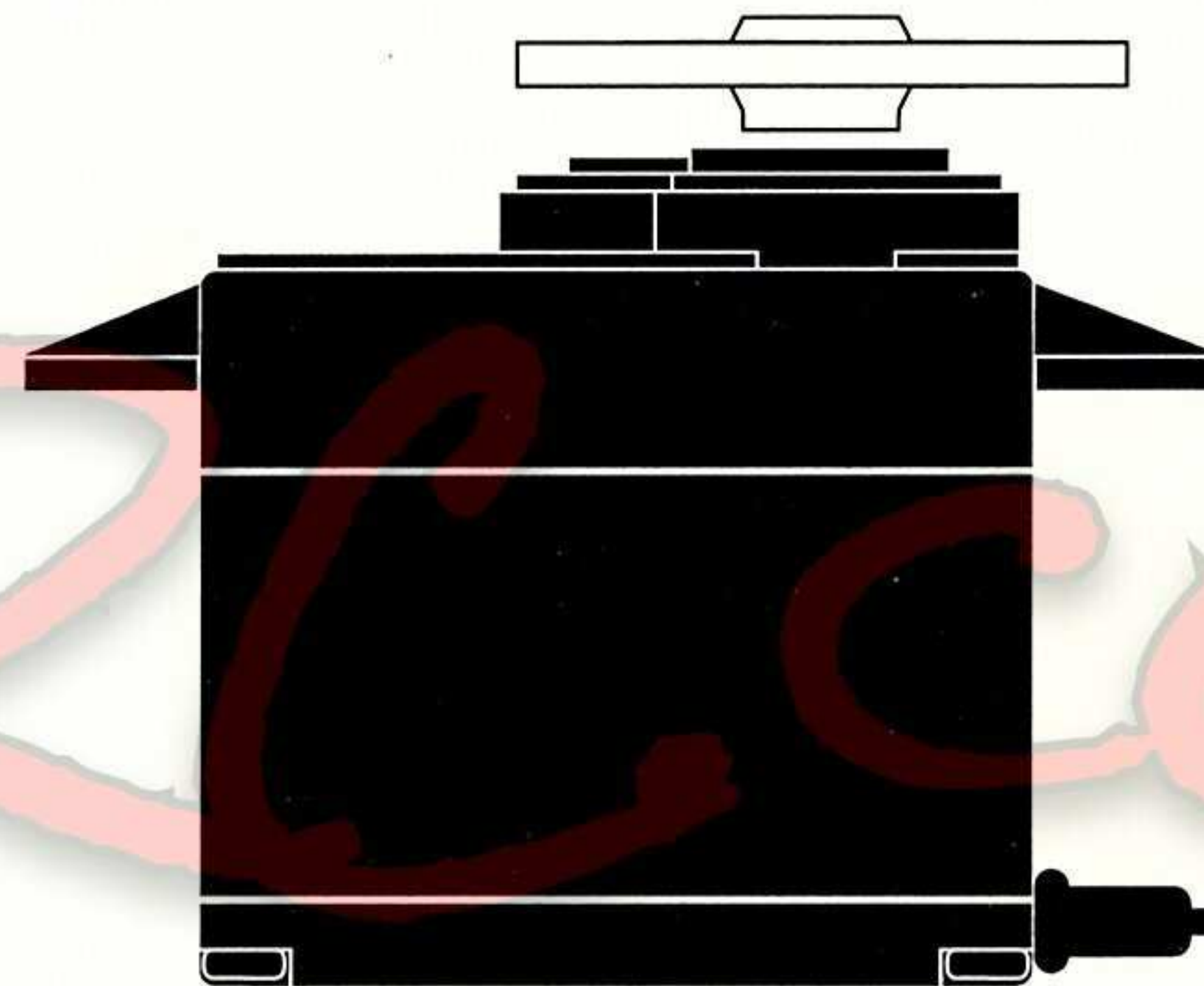
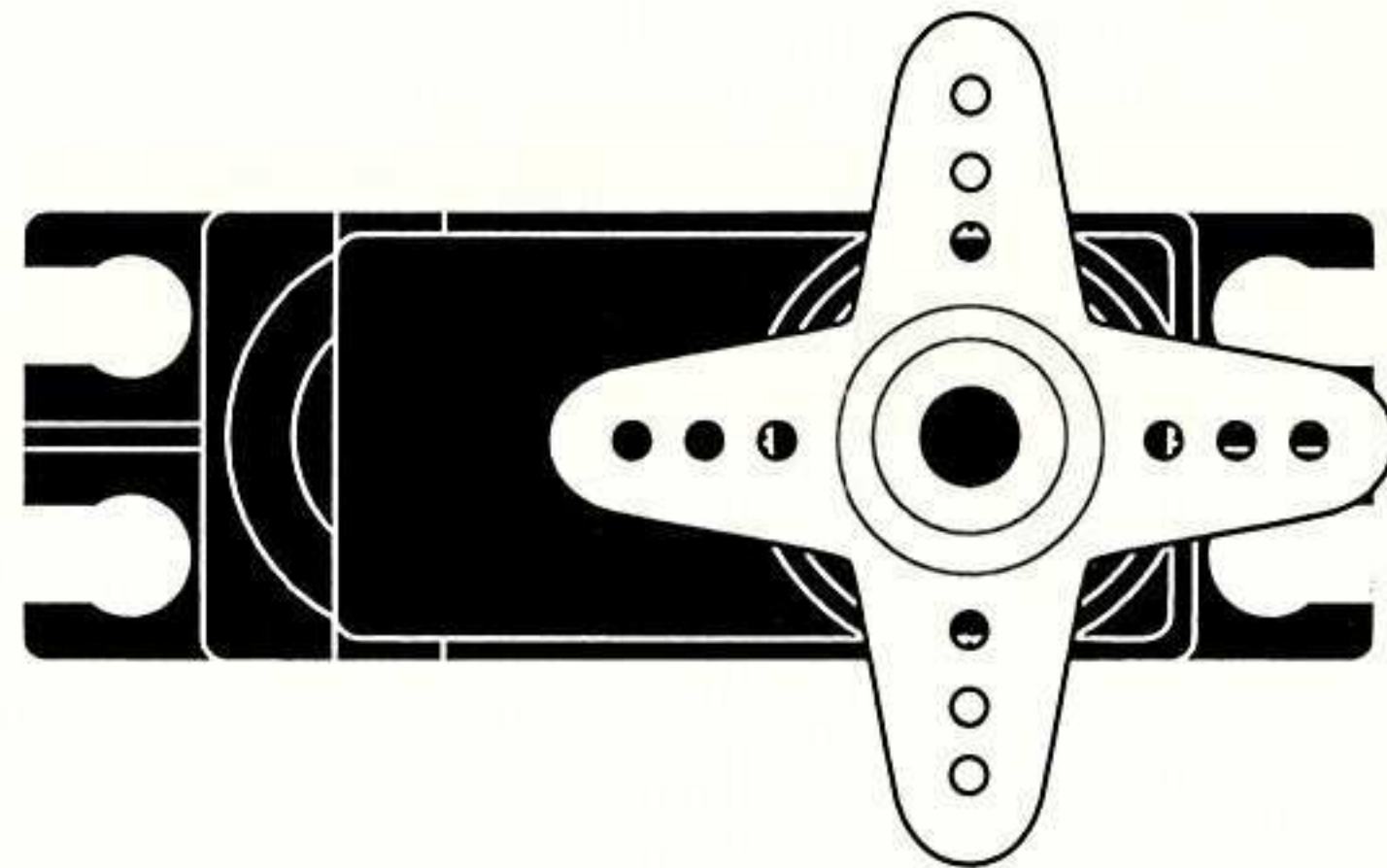


JR servos are a perfect combination with their radio systems. Much research has gone into developing custom I.C.'s that give high resolution, extreme accuracy and zero dead band. Mechanical neutral is accomplished by adjusting the servo arm or wheel on the splined output shaft. All JR servos offer zero backlash gear trains, low drain amplifiers, and superior 3 point connectors to ensure the performance our customers demand.

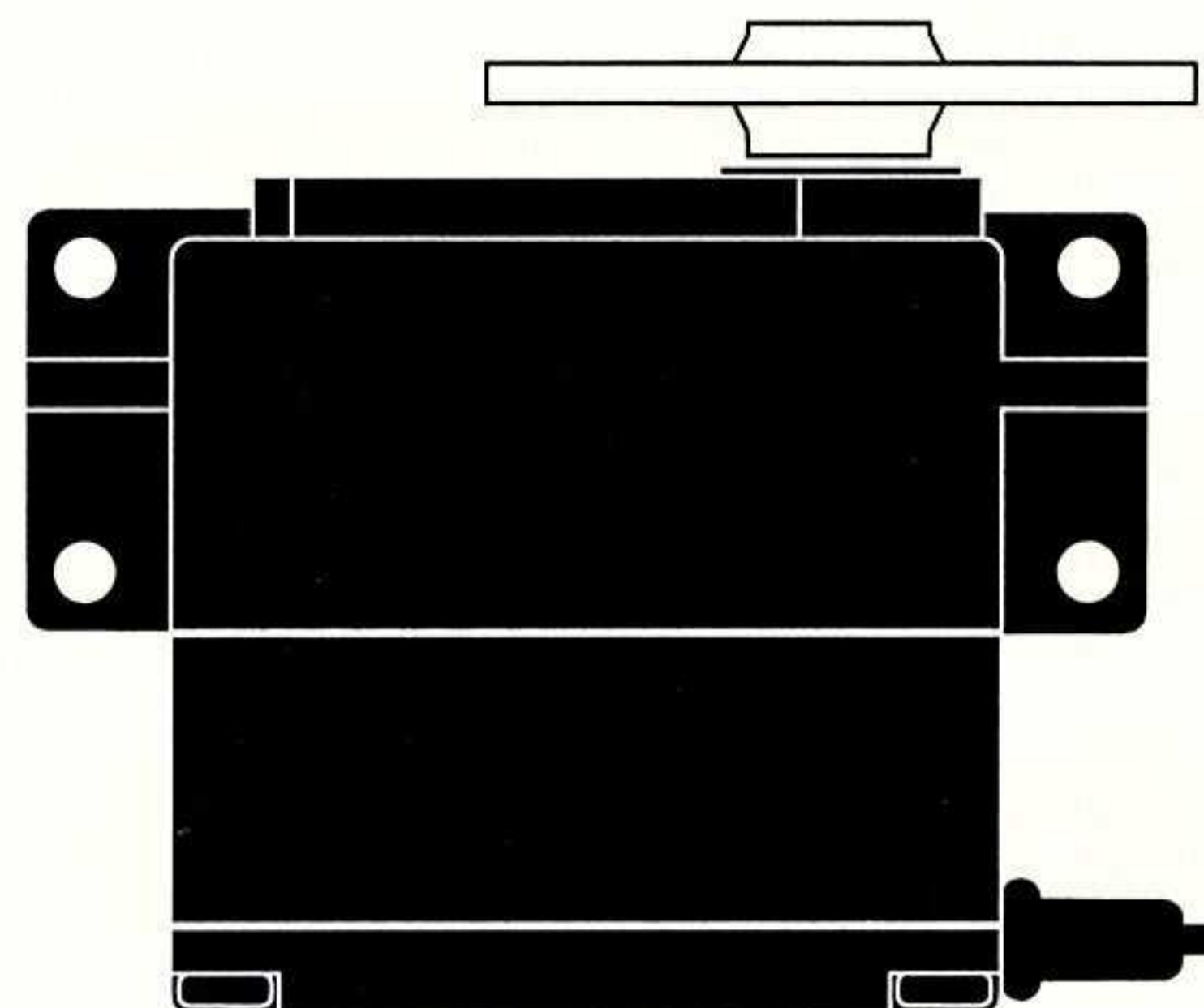
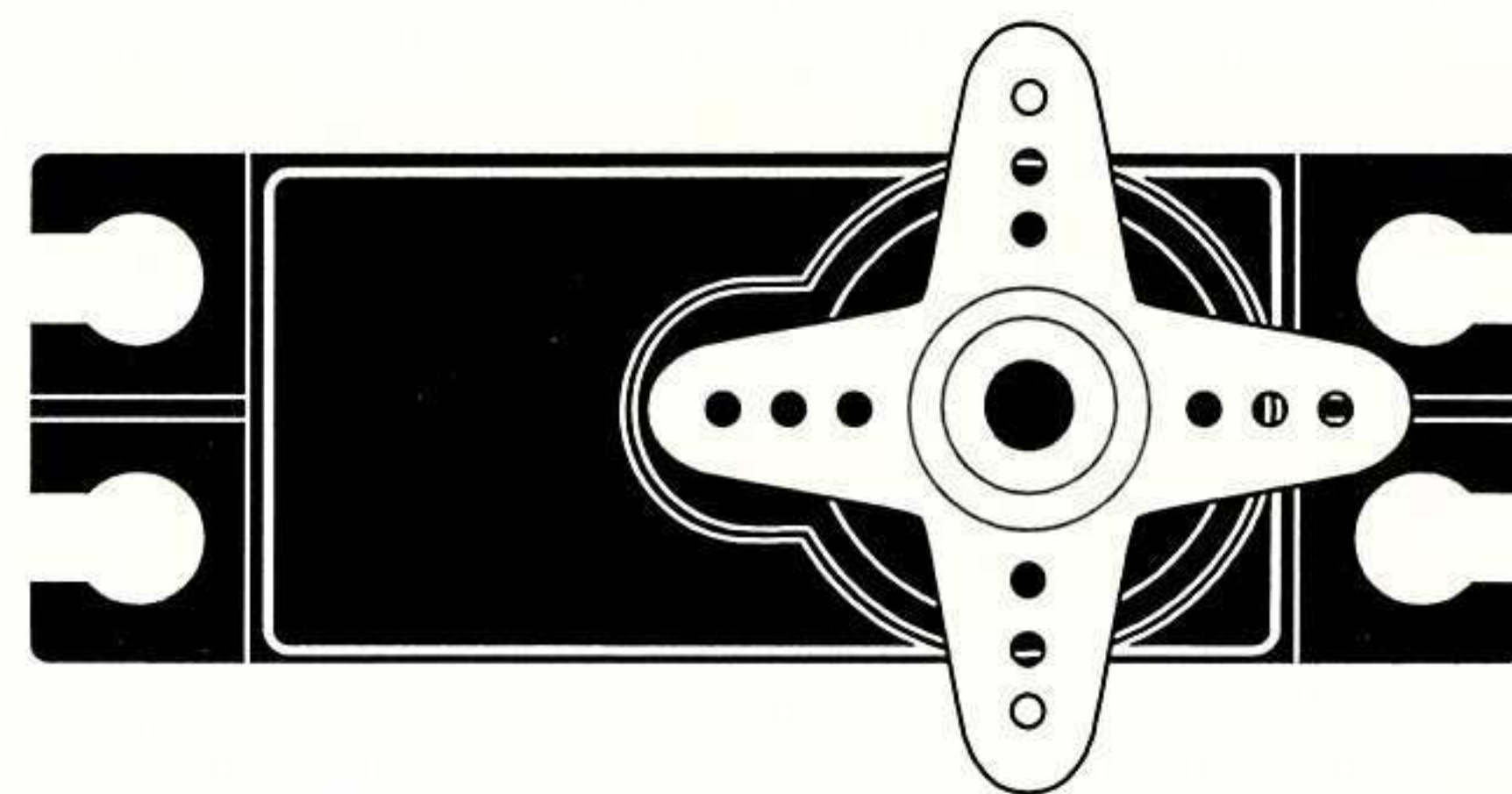
All servos are drawn to scale. Refer to the following pages for exact specifications.



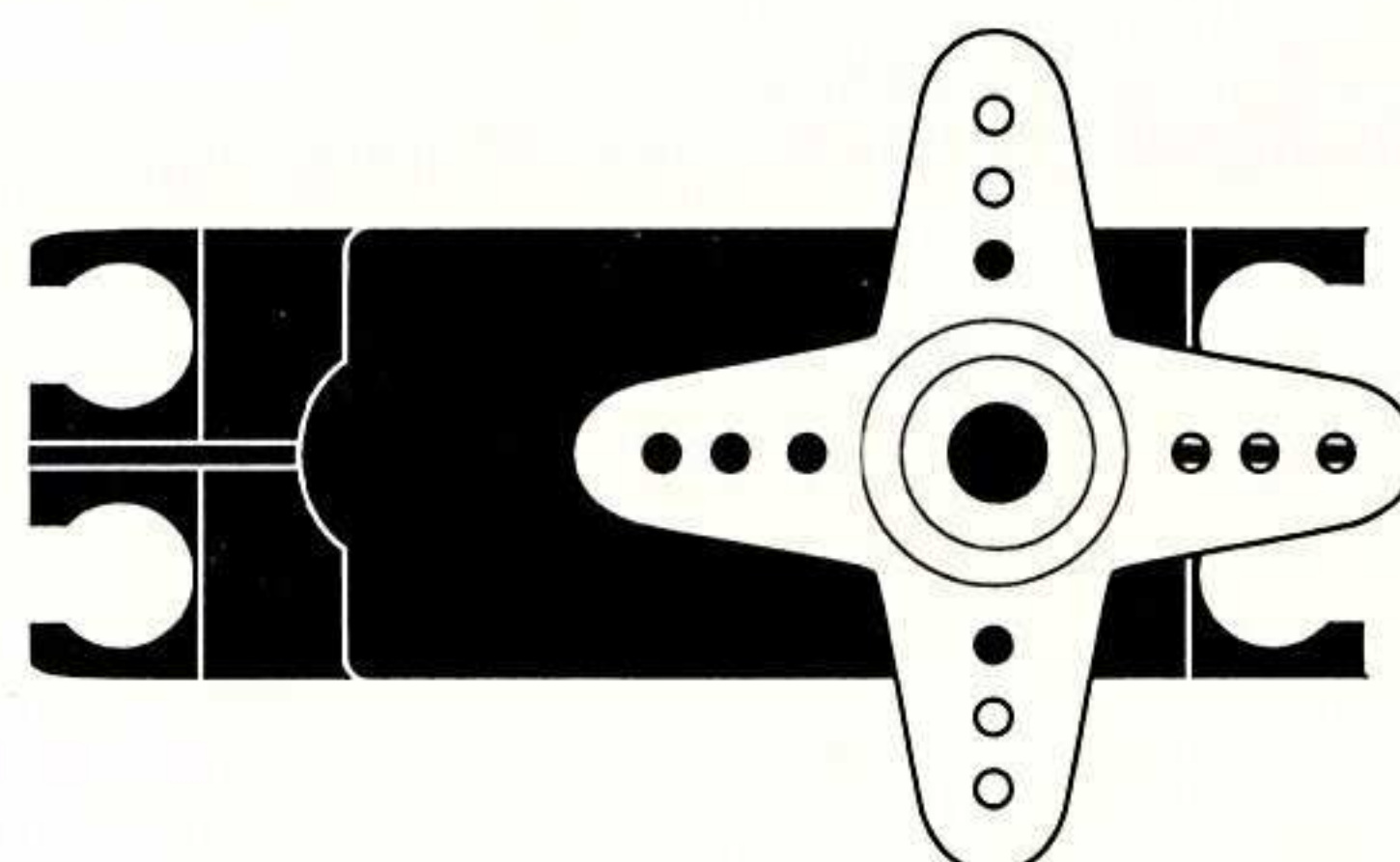
servo 321
servo 3021
servo 3025

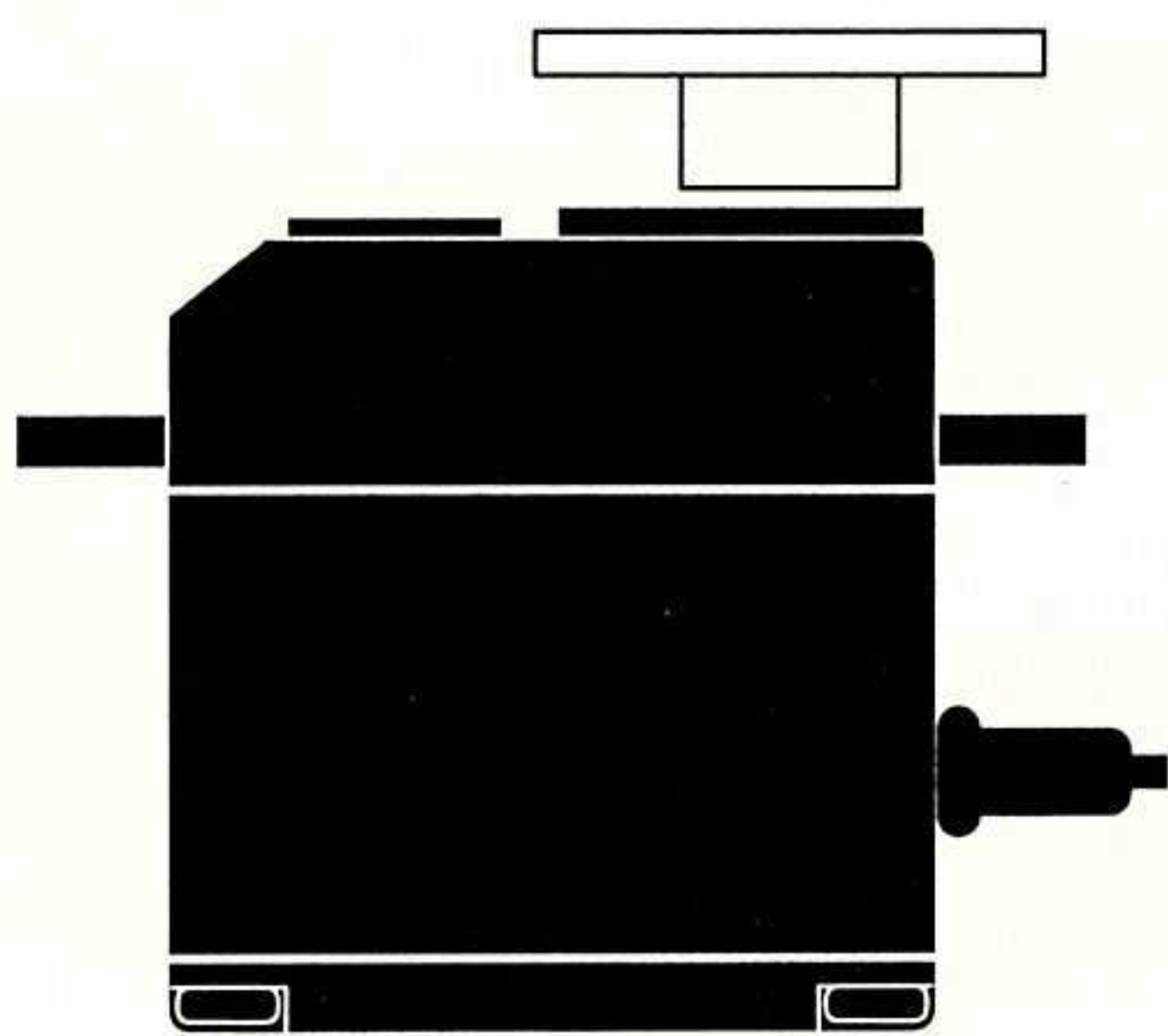


servo 507
servo 513
servo 517

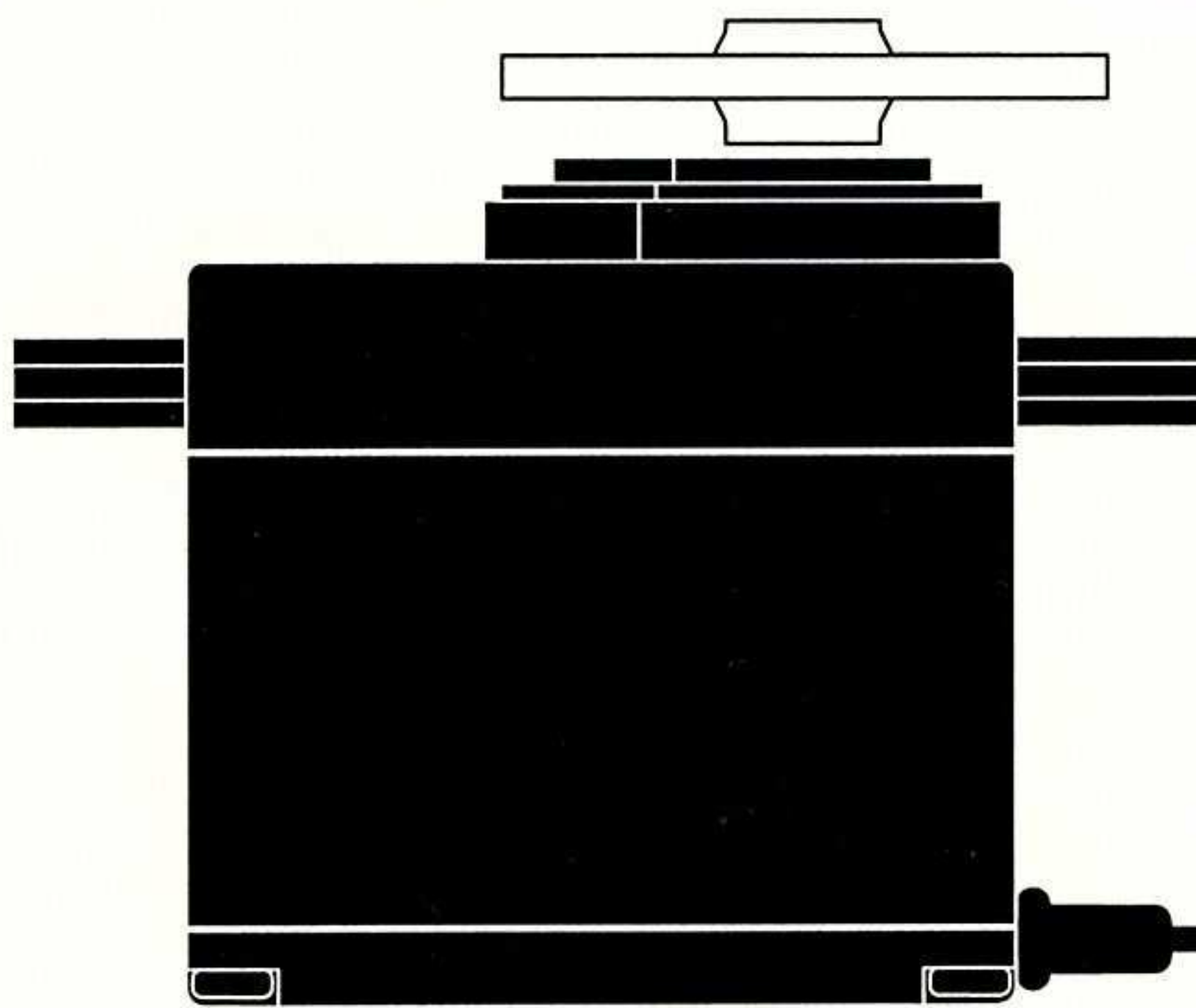
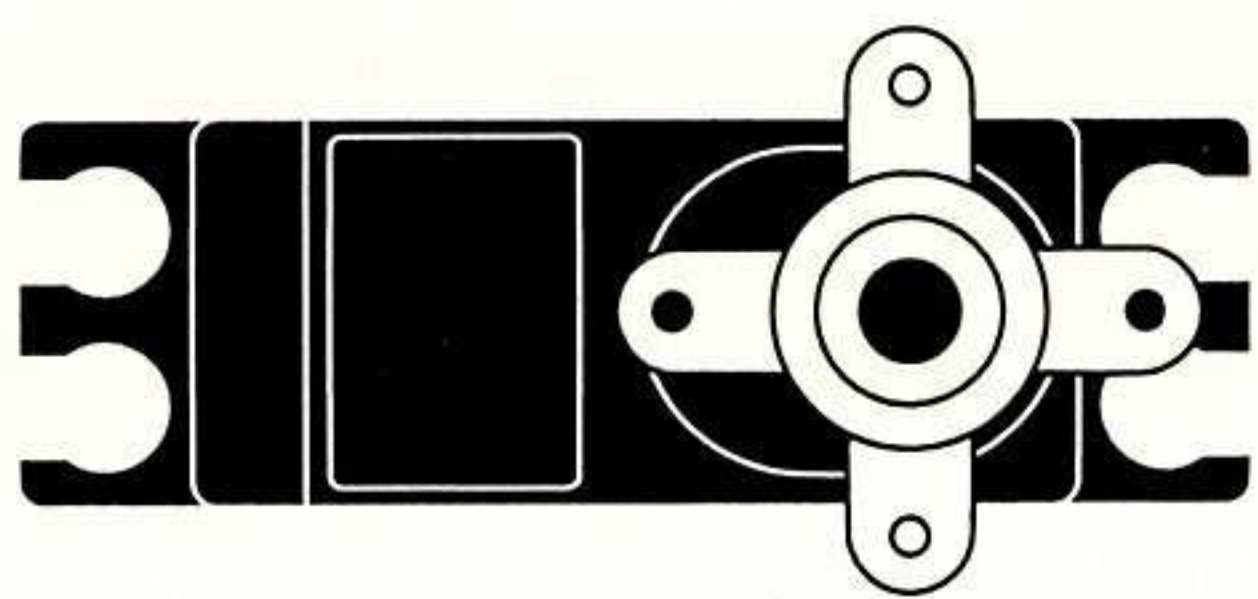


servo 3321

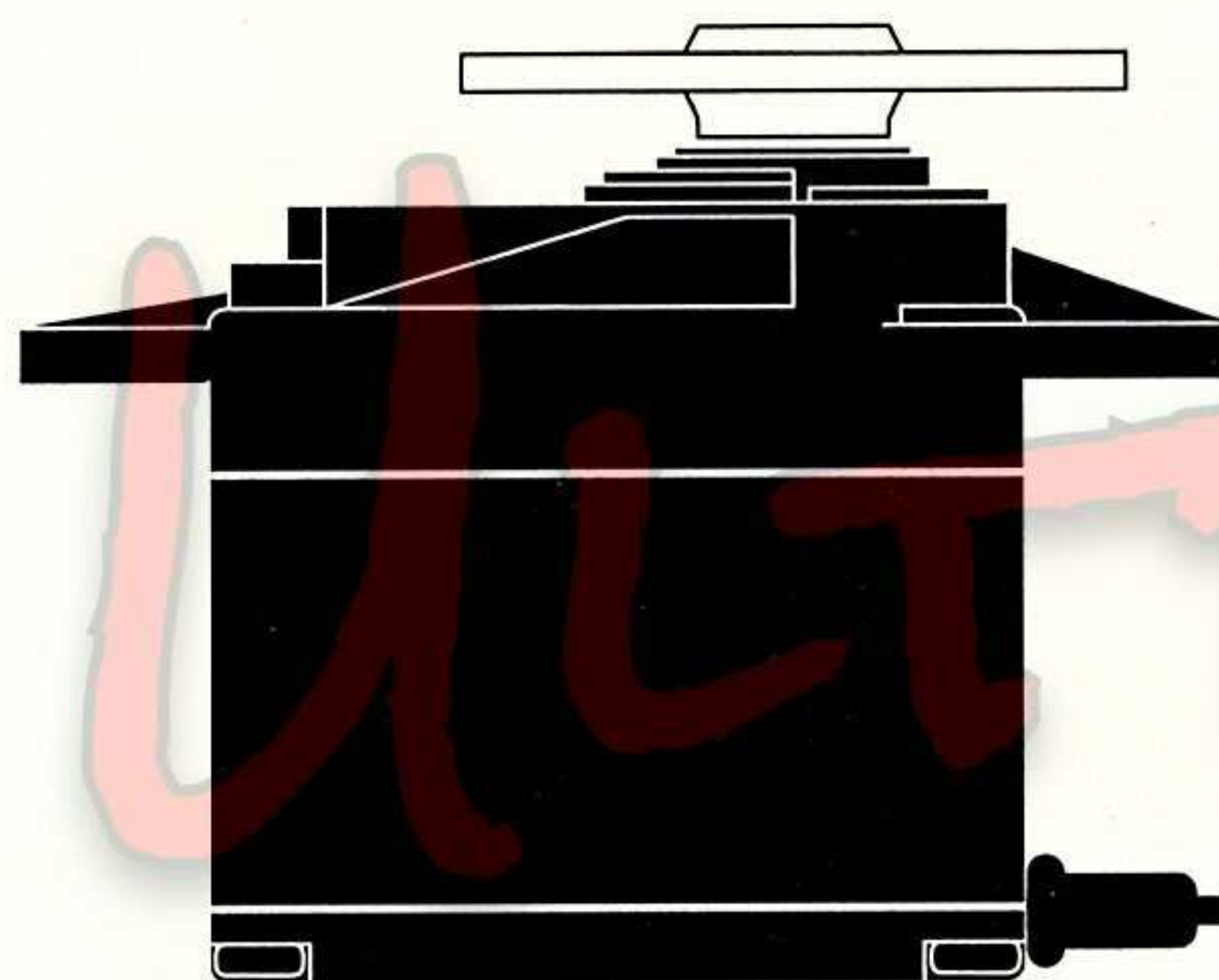
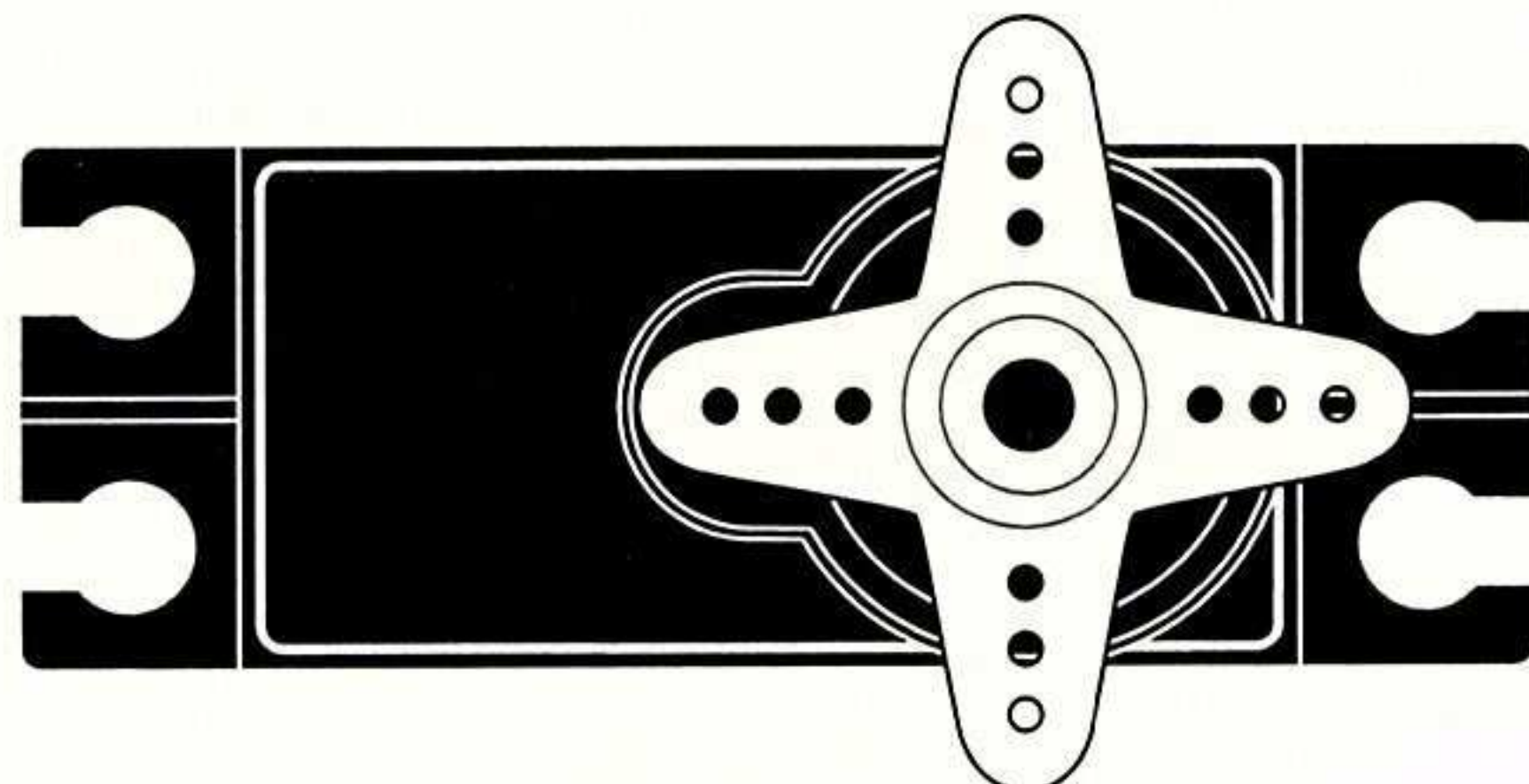




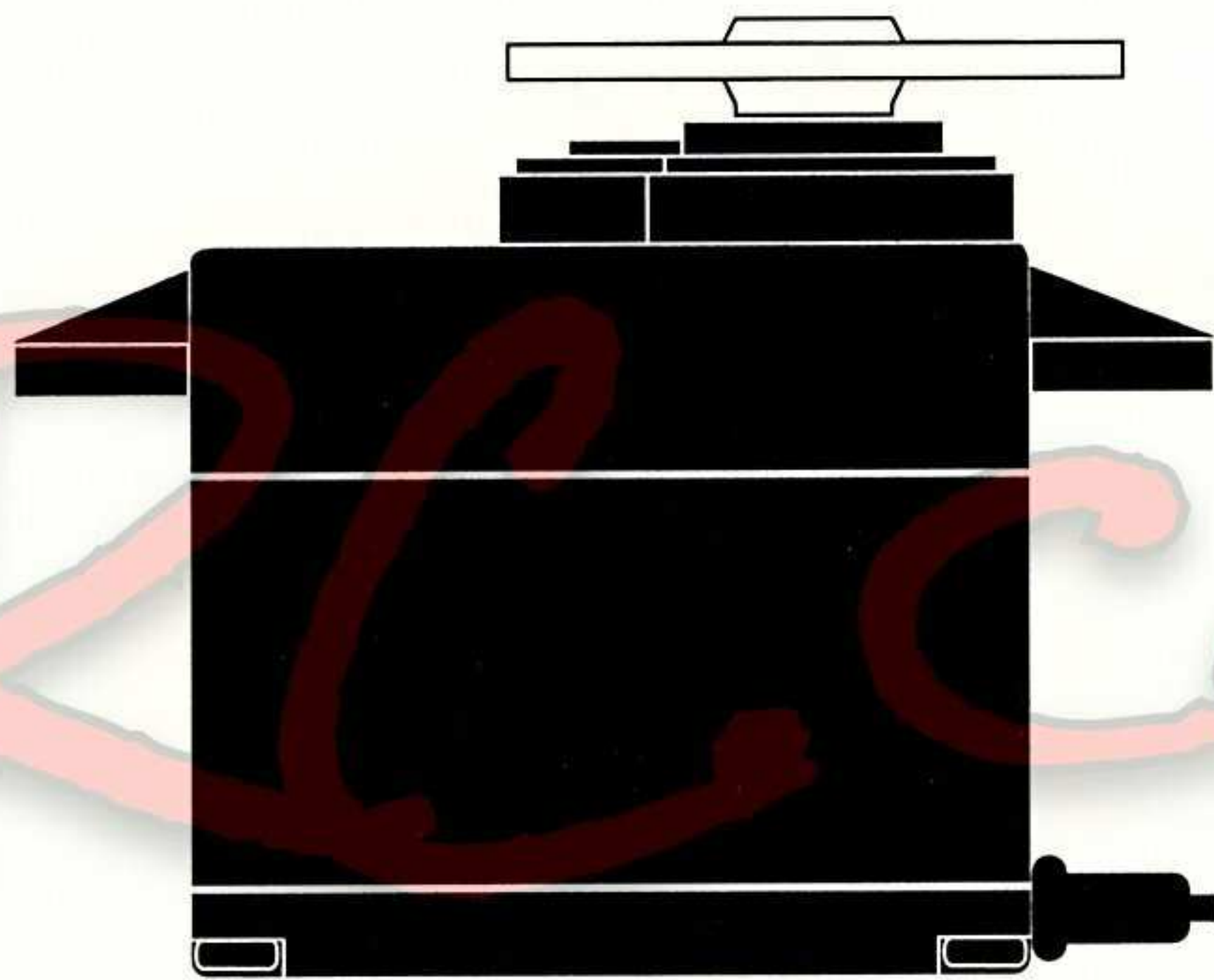
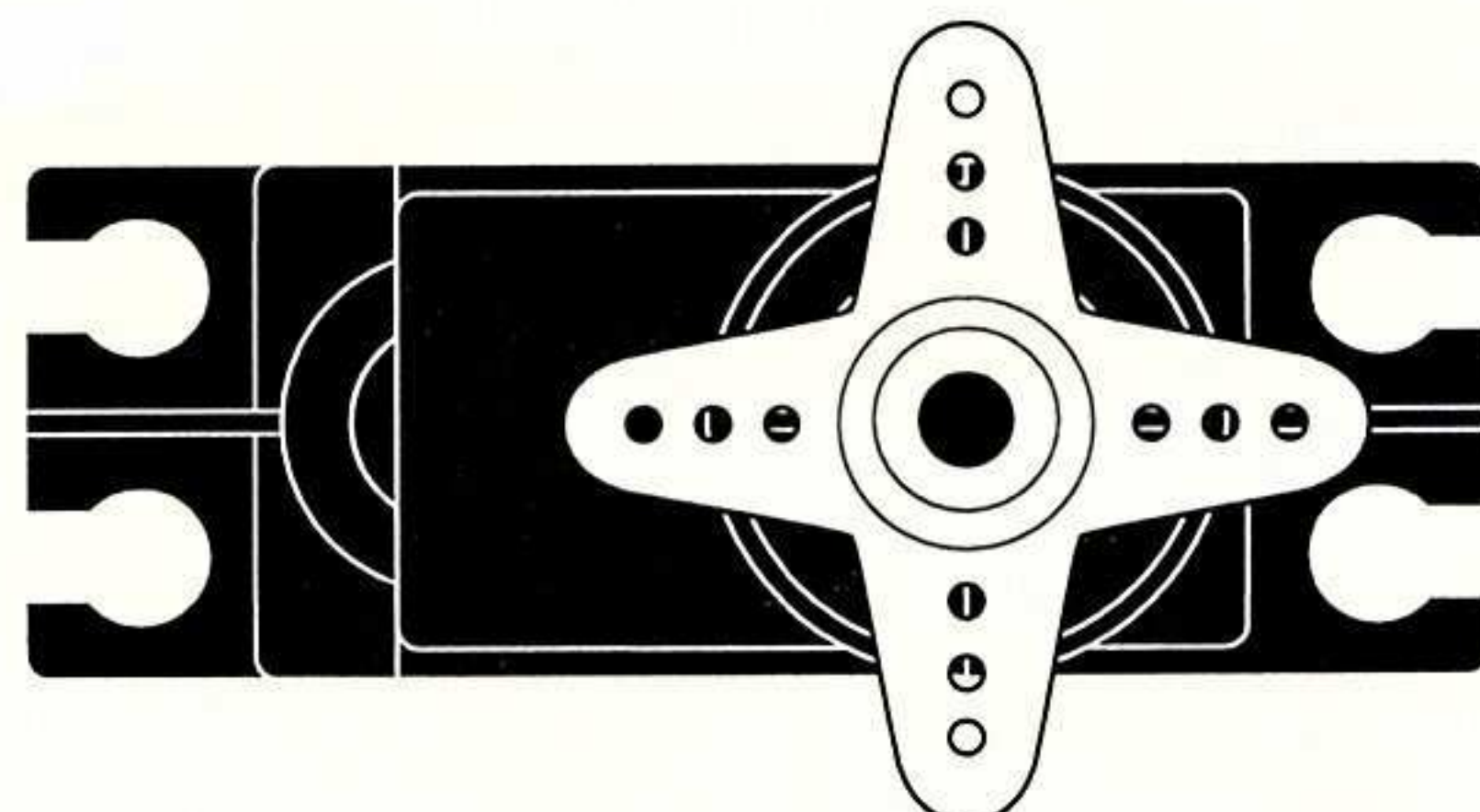
servo 341



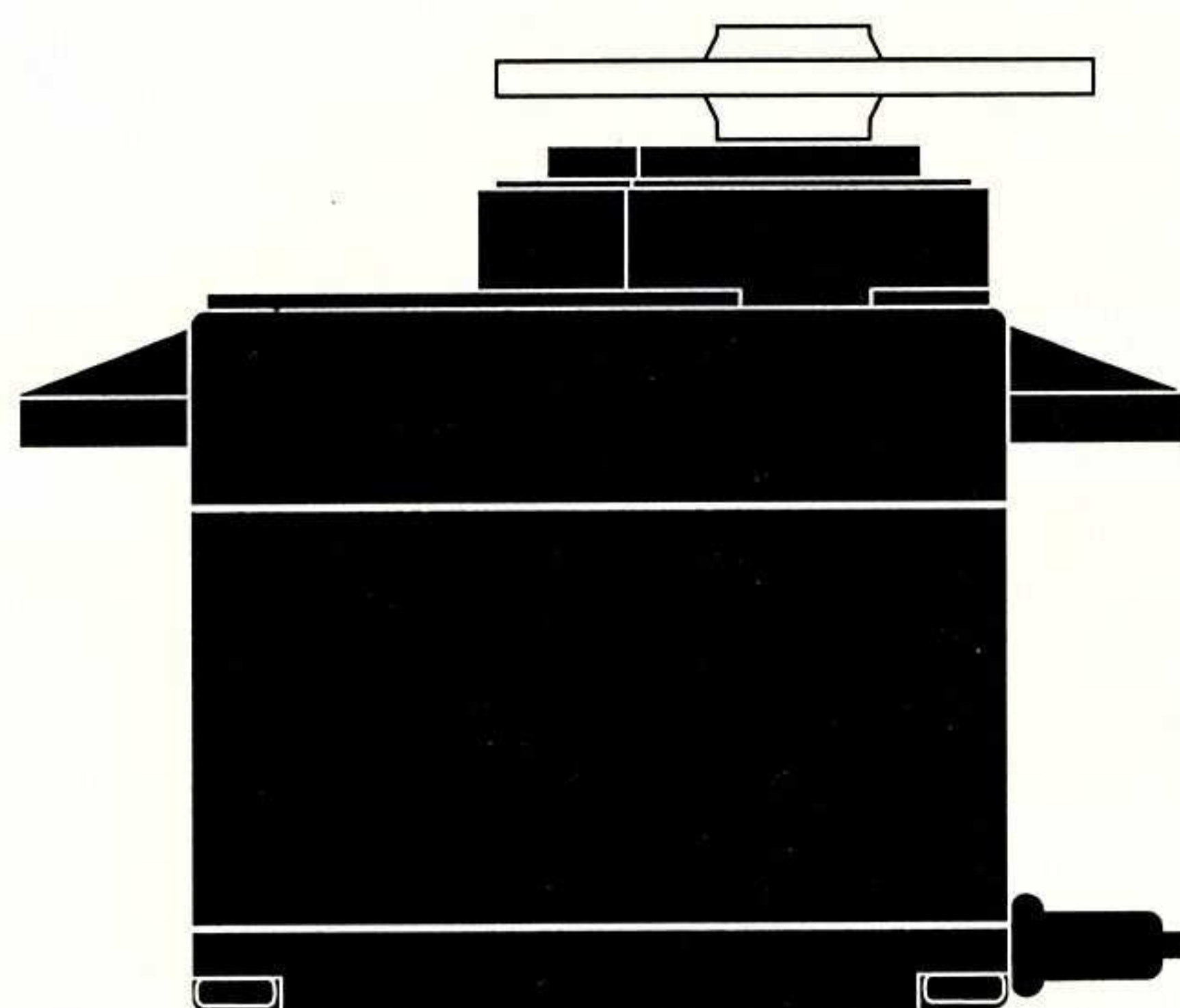
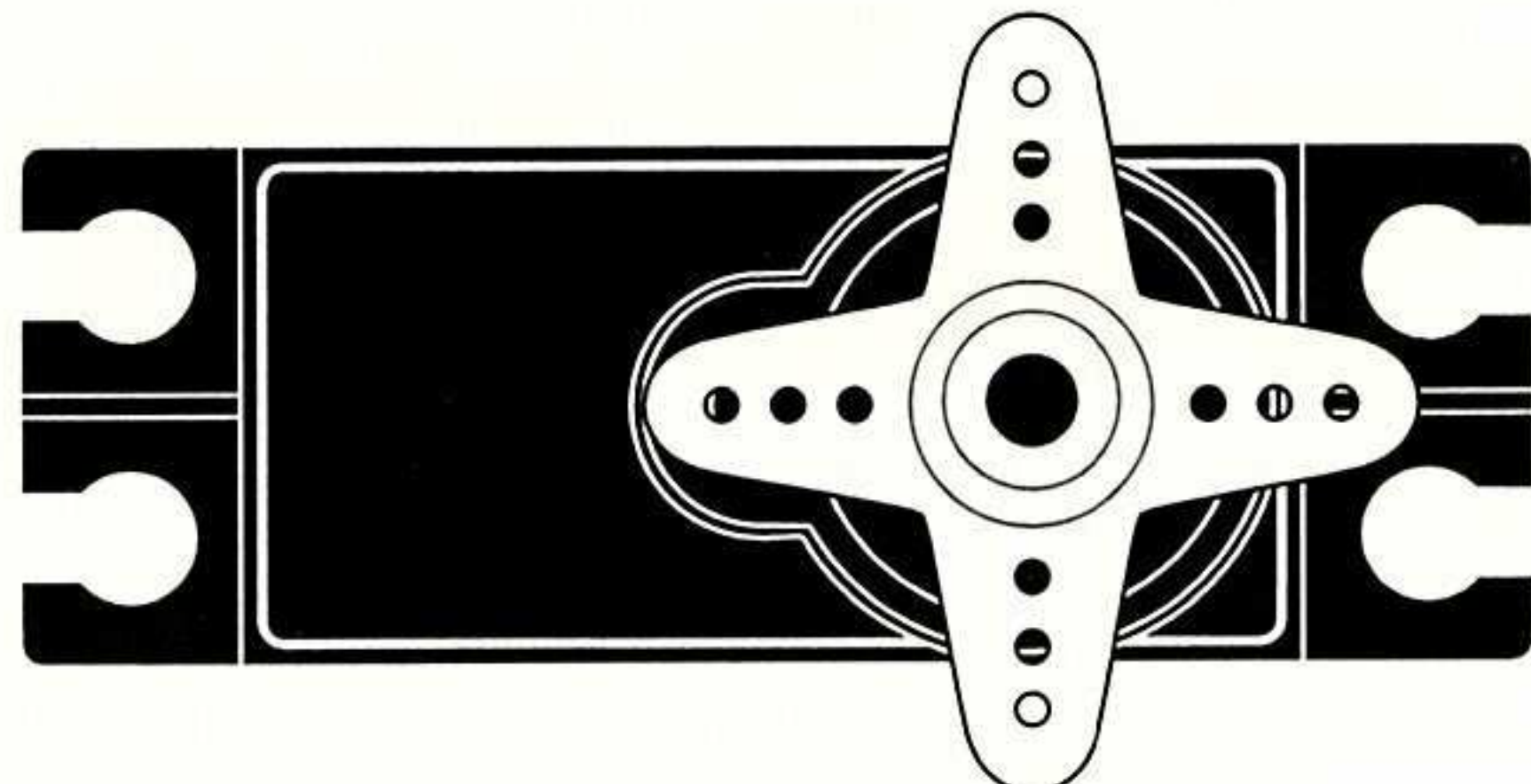
servo 203
servo 501



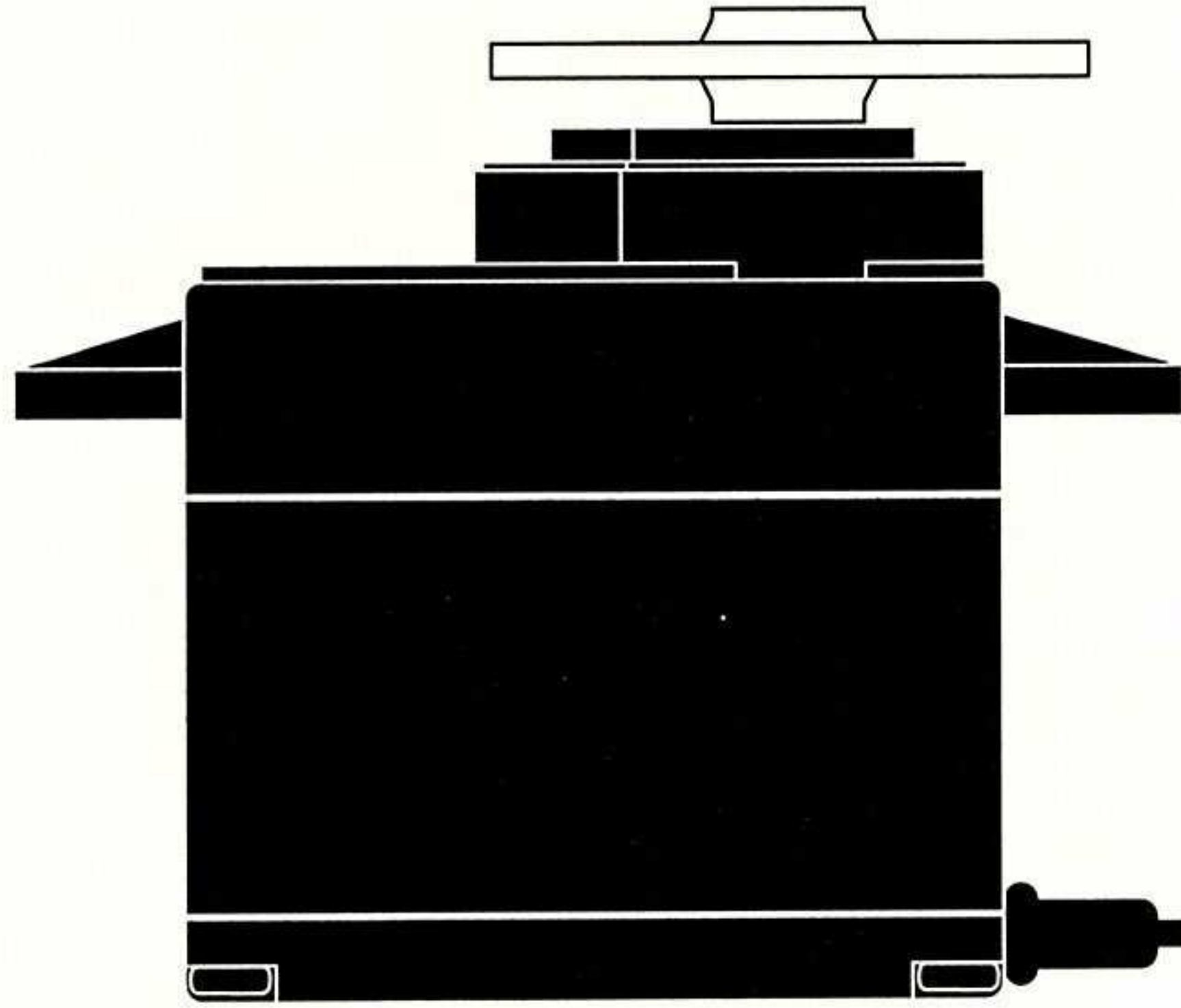
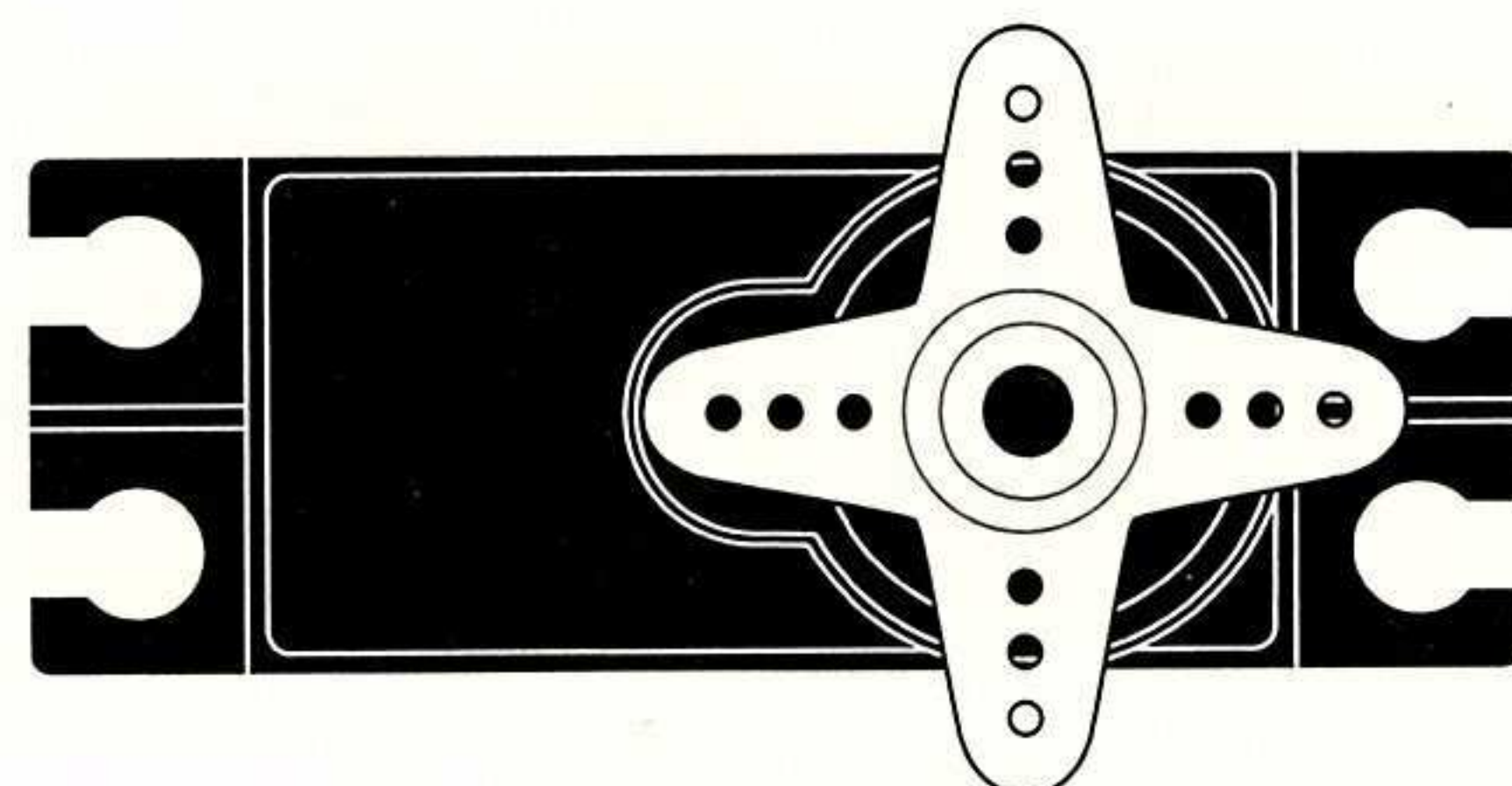
servo 901
servo 9001
servo 9021



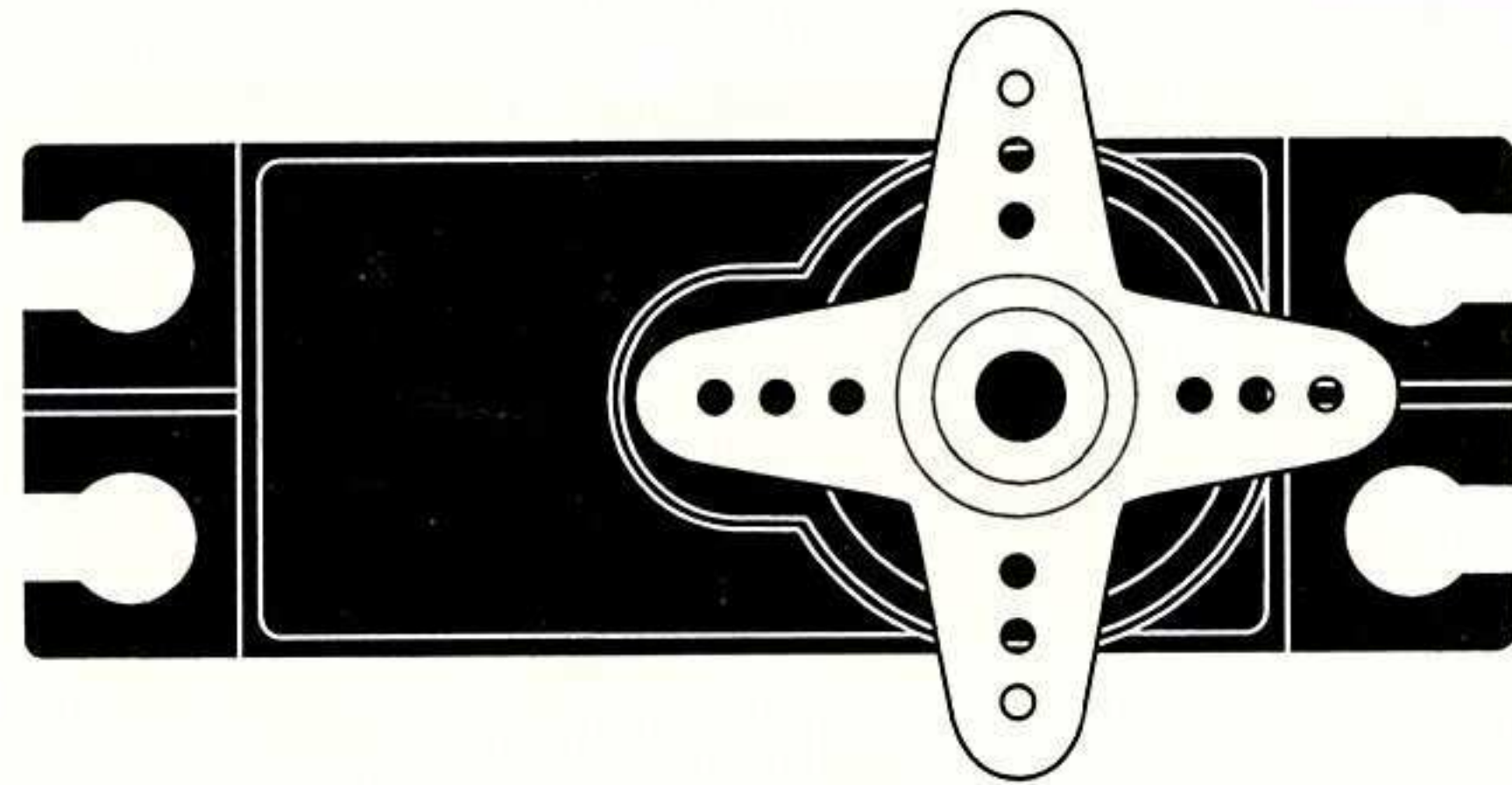
servo 2031
servo 2035
servo 2135



servo 471
servo 4021
servo 4131
servo 4721



servo 4051

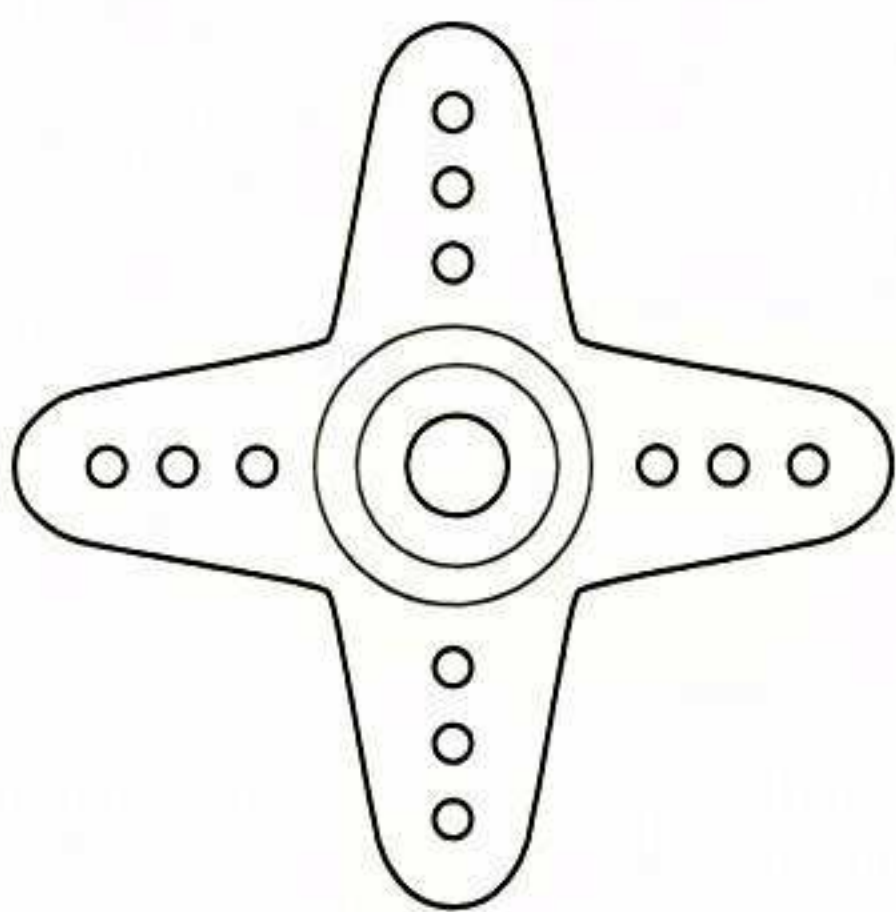


Servo	Torque Oz-In	Speed S/60°	Weight Oz	H /W/L inches	Motor	BB S or D*	Features	Use
321	29.21	.23	.77	1.2245 x .5810 x 1.7510	5 Pole Ferite	S	Mini Servo, Low Profile	Small Helicopter or Airplane, Glider
341	31.99	.24	.63	1.4310 x .5050 x 1.4995	5 Pole Ferite	—	Micro Servo, Light Weight, High Grade Neutral, Oversized Gear Train	Small Airplane, Electric Helicopter, Glider
471	107.11	.24	1.44	1.7460 x .7415 x 2.1425	5 Pole High Power Ferite	D	Standard Size Case, Ultra High Torque, High Performance	1/4 Scale Gas Cars, Boats, 60 Size Helis, Pattern Aircraft, 1/4 Scale Airplane
501	40.00	.30	1.60	1.7470 x .7405 x 2.1470	5 Pole Ferite	Teflon Bushing	Low Drain IC Servo Amplifier, Triple Contact Connector, Indirect Pot Drive	Sport Aircraft, Trainer Airplanes
507	40.34	.25	1.47	1.6820 x .7315 x 2.1365	3 Pole Ferite	—	Low Gear Ratio for Higher Power, Indirect Pot Drive, Silver Plated Triple Contact Connector	Sport Aircraft, Small Helis, Electric Cars
517	40.34	.27	1.58	1.6820 x .7315 x 2.1365	3 Pole Ferite	S	Sport Servo, Standard Size Case, Ball Bearing Output	Trainer Aircraft, Small Helis, Sport Airplanes
901	43.12	.27	1.33	1.5560 x .7045 x 1.9865	5 Pole Ferite	D	Mid Size Servo, Indirect Pot Drive	Pylon Aircraft, Trainer Airplanes, Sport Flying
2031	61.20	.25	1.61	1.6540 x .7310 x 2.1395	Coreless	D	High Performance Servo, Mid-Size Case	Pattern Aircraft, High Performance Airplanes
2035	47.29	.19	1.61	1.6540 x .7310 x 2.1395	Coreless	D	Mid-Size Case, Very High Speed, High Performance	Pattern Aircraft, High Performance Airplanes
2135	73.72	.19	1.68	1.6540 x .7310 x 2.1395	Coreless	D	Very High Speed, Mid-Size Case, High Performance	1/12 Electric Cars, 30 Size Heli, Precision Aircraft
3021	37.56	.22	.84	1.2245 x .5810 x 1.7510	Coreless	D	Mini Servo, Light Weight	Electric Cars, Electric Helis, Gliders, Small Pylon Aircraft
3025	29.21	.15	.95	1.2245 x .5810 x 1.7510	Coreless	D	Mini Servo, Light Weight, Ultra High Speed	1/12 On Road Electric Cars
3321	59.81	.36	.95	1.4740 x .5850 x 1.7480	Coreless	D	Light Weight, Specifically for Glider Wing Application	Glider Usage
4021	72.33	.30	1.61	1.7460 x .7415 x 2.1425	Coreless	D	High Torque, Low Drain O Deadband Amplifier, Oversized Gear Train	60 Size Helicopters, Pattern Aircraft
4051	47.10	.19	1.60	1.7500 x .7375 x 2.1425	Coreless	S	High Performance, Very High Speed, Low Drain O Deadband Amplifier, Gold Plated Triple Connector	Electric Off-Road Cars & Buggies
4131	90.42	.23	1.08	1.7460 x .7415 x 2.1425	Coreless	D	High Torque, High Precision	Designed for 30/60 Size Helicopters
4721	119.63	.22	1.72	1.7460 x .7415 x 2.1425	Coreless	D	Extremely High Torque, High Speed, High Performance	1/4 Scale Aircraft and Cars, Helicopters, Gas Boats
9001	41.73	.19	1.40	1.5560 x .7045 x 1.9865	Coreless	D	Mid Size Servo Case, Very High Speed, High Grade Neutral	Small Aircraft, Sport Type Aircraft
9021	51.47	.22	1.51	1.5560 x .7045 x 1.9865	Coreless	D	Mid Size Servo Case	Pylon Aircraft, Pattern Aircraft
513	66.77	1.25 S/160°	1.72	1.6820 x .7315 x 2.1365	5 Pole Ferite	S	Standard Size Case, Low Drain IC Servo Amplifier	Retract Servo

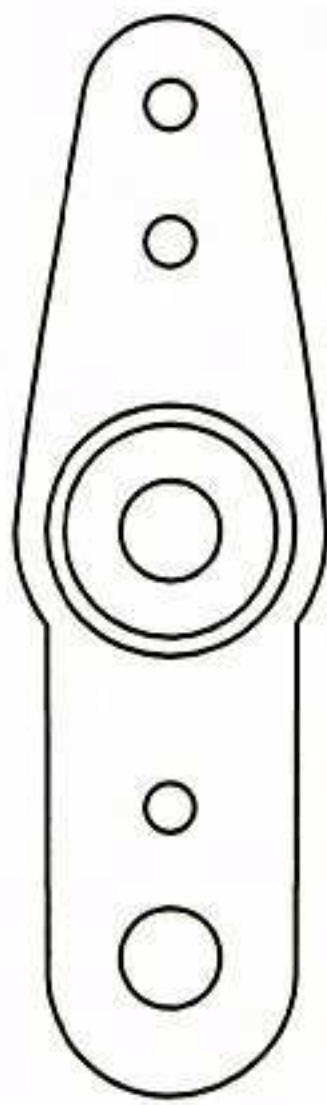
* S: Single Ball Bearing D: Double Ball Bearing

D-BB 4031/4061(T)
D-BB 4421/83.3(T)

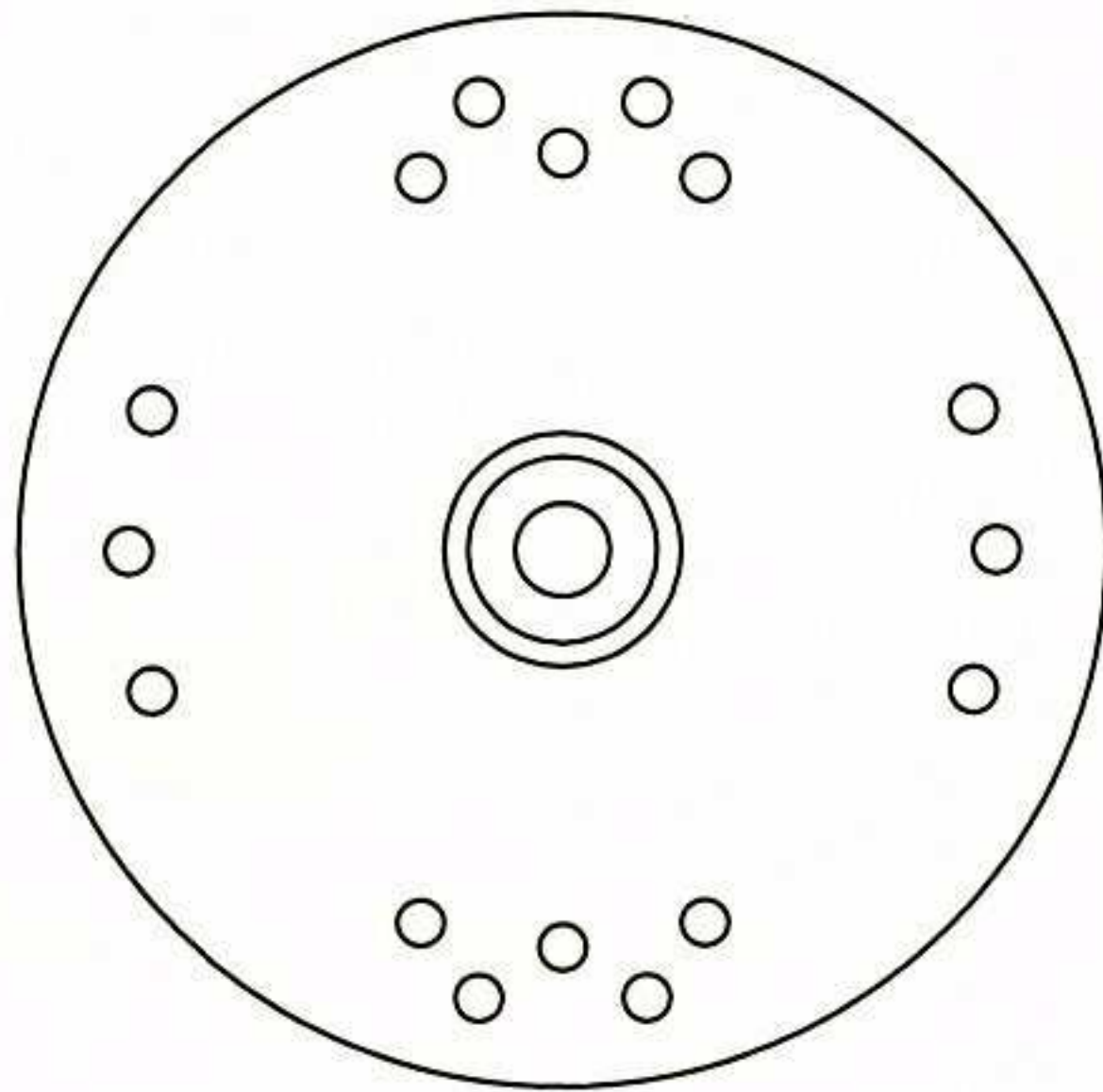
SERVO ARMS	ITEM #	SERVO GEAR SETS	Item #	SERVO TRAYS	ITEM #
Standard arms w/screws (3 ea. of standard wheel, standard horn, offset horn, offset arm)	JRPA005	Servo gear set for 203, 513 servos (1 set)	JRPGS203	2 x 2 servo tray, 4 servos	JRPA0701
Servo accessories bag (Large offset arm and large wheel, eyelets, mounting screws, rubber grommets)	JRPA005B	Servo gear set for 305 Metal servo (1 set)	JRPGS305	2 x 1 servo tray, 3 servos	JRPA0702
Micro horn w/ screws	JRPA005M	Servo gear set for 305, 307 servos	JRPGS307	1 x 1 servo tray, 2 servos	JRPA0703
Standard wheel (12)	JRPA005W	Servo gear set for 321, 3021 servos	JRPGS321	Aileron horizontal servo tray	JRPA0704
2 large wheels, 2 large standard arms, 2 offset arms	JRPA006	Servo gear set for 341 servo	JRPGS341	Aileron horizontal servo tray — mid-size	JRPA0706
10 heavy duty arms	JRPA006A	Servo gear set for 401, 402, 4001, 4002, 4011 servos (4 sets)	JRPGS401	2 x 1 servo tray, 3 servos — mid-size	JRPA0707
6 large arms	JRPA006S	Servo gear set for 101, 103, 201, 501, 502, 2001 servos (4 sets)	JRPGS501		
6 large wheels	JRPA006W	Servo gear set for 205, 505, 506 servos (2 sets)	JRPGS505		
6 offset arms	JRPA006X	Servo gear set for 507, 517 servos (4 sets)	JRPGS507		
		Servo gear set for 801, 803, 8001 servos (4 sets)	JRPGS801		
		Servo gear set for 901, 9001, 9021 servos (2 sets)	JRPGS901		
		Servo gear set for 2031 servo	JRPGS2031		
		Servo gear set for 2035, 2135 servos	JRPGS2035		
		Servo gear set for 301, 3001, 3002 servos (1 set)	JRPGS3001		
		Servo gear set for 3025, 3035 servos	JRPGS3025		
		Servo gear set for 3321 servo	JRPGS3321		
		Servo gear set for 471, 4021, 4421, 4721 servos	JRPGS4021		
		Servo gear set for 4031, 4131 servos (4 sets)	JRPGS4031		
		Servo gear set for 4005, 4051 servos (4 sets)	JRPGS4051		
SERVO CASES	ITEM #	SERVO HARDWARE	ITEM #		
Servo case for 305, 307, 311 servos	JRPSC305	Servo mounting rubber grommet (8 pk)	JRPA008		
Servo case for 321, 3021, 3025, 3035 servos	JRPSC321	Servo tray grommet round (4 pk)	JRPA008B		
Servo case for 341 servo	JRPSC341	Antenna grommet (5 pk)	JRPA008C		
Servo case for 401, 4001, 4005, servos	JRPSC401	Grommet for 307	JRPA008D		
Servo case for 101, 103, 201, 203, 205, 501, 502, 1001, 2001 servos	JRPSC501	Servo mounting grommet (16 pk)	JRPA008G		
Servo case for 505, 506 servos	JRPSC505	Servo mounting screw set	JRPA009		
Servo case for 507, 513, 517 servos	JRPSC507	Servo case screws (20 pk)	JRPA009A		
Servo case for 801, 803, 8001 servos	JRPSC801	Servo arm screw set	JRPA009B		
Servo case for 901, 9001, 9021 servos	JRPSC901	Servo eyelet set	JRPA009C		
Servo case for 2031, 2035, 2135 servos	JRPSC2031				
Servo case for 3321 servo	JRPSC3321				
Servo case for 4011, 4051 servos	JRPSC4051				
Servo case for 471, 4021, 4031, 4421, 4721, 4131 servos	JRPSC4031				



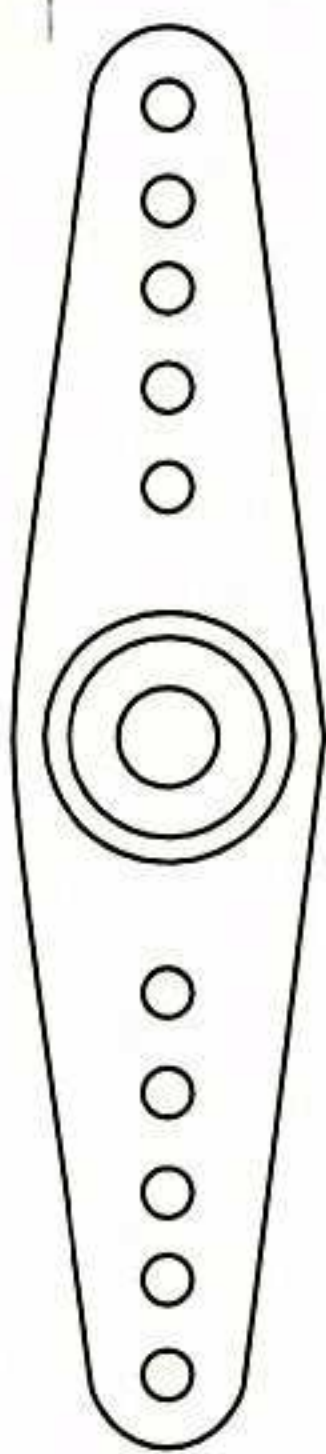
Standard horn



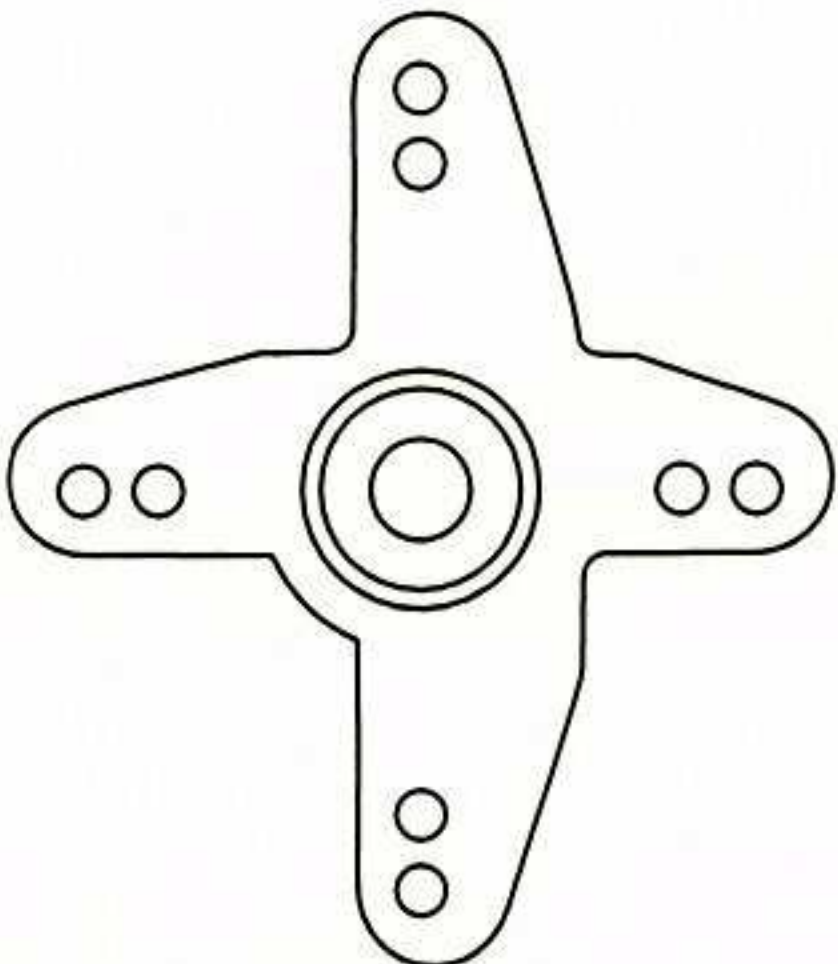
Heavy duty arm



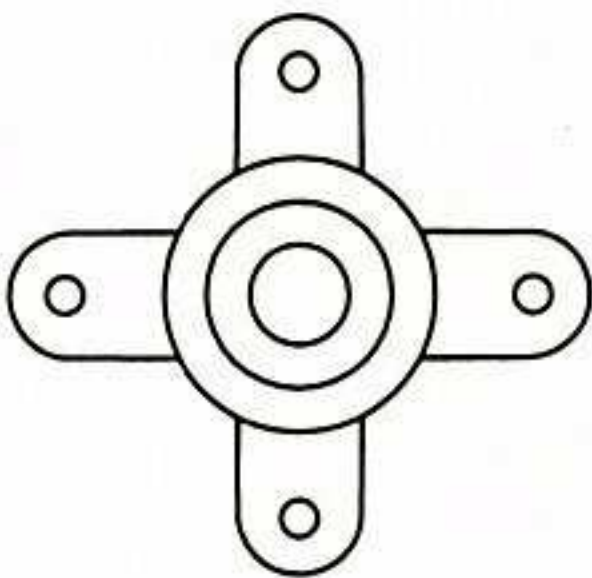
Large wheel



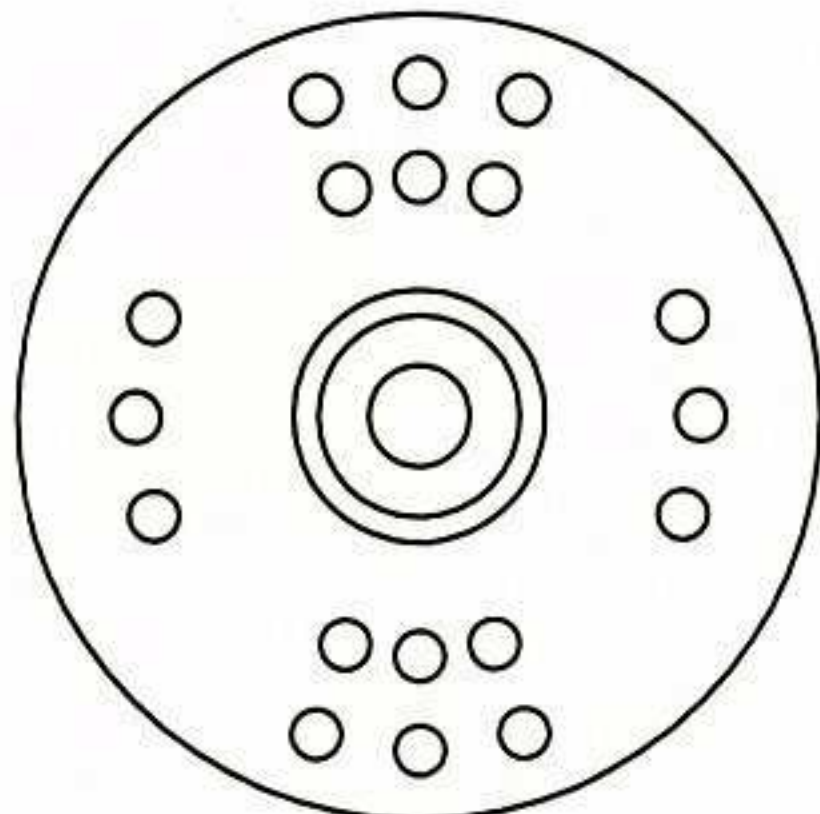
Large arm



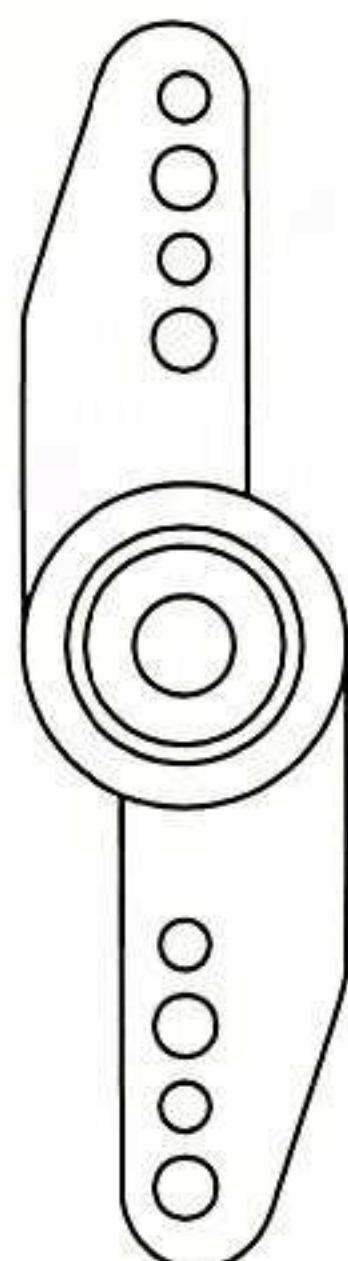
Offset horn



Micro horn



Standard wheel

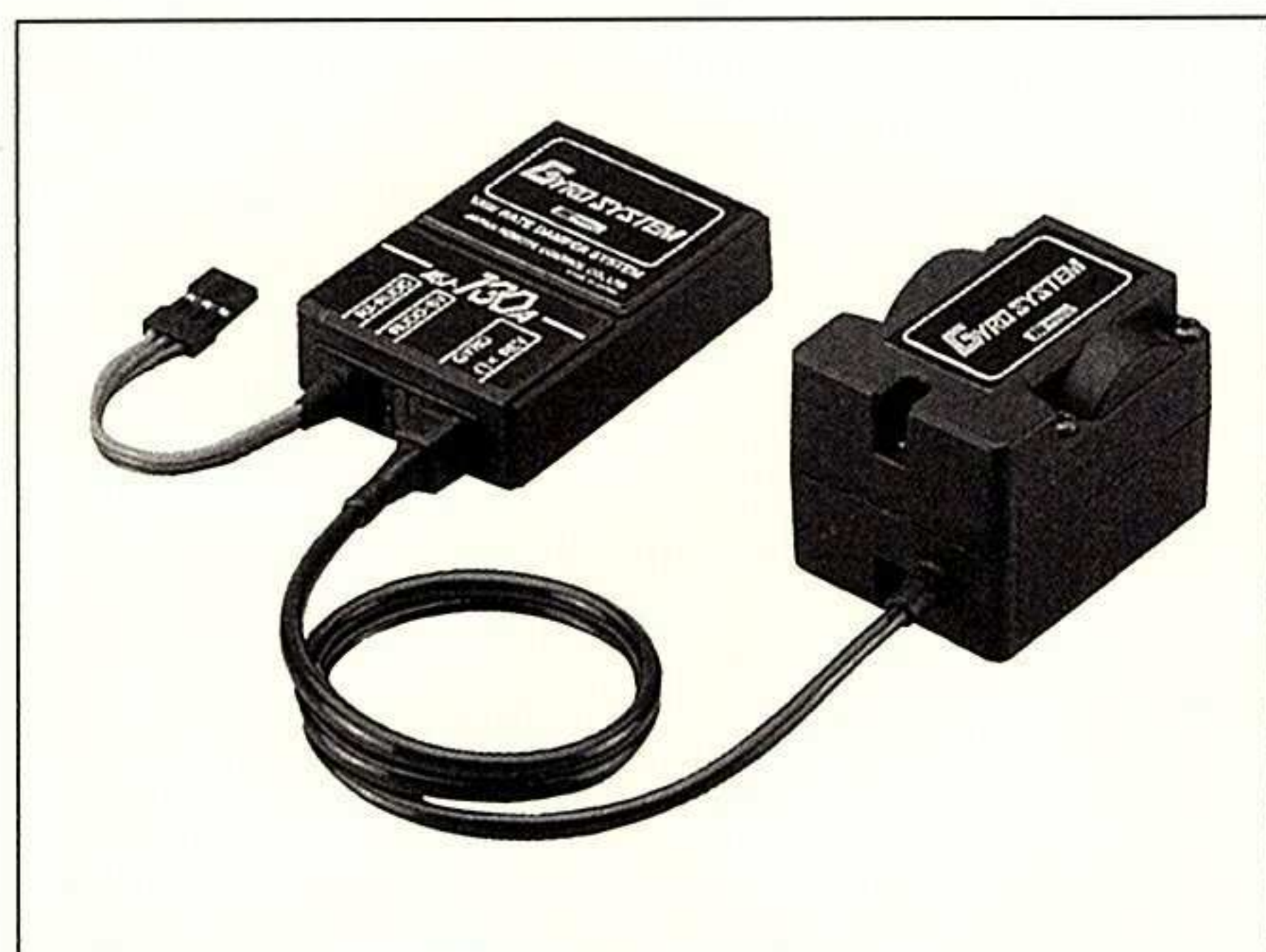


Offset arm

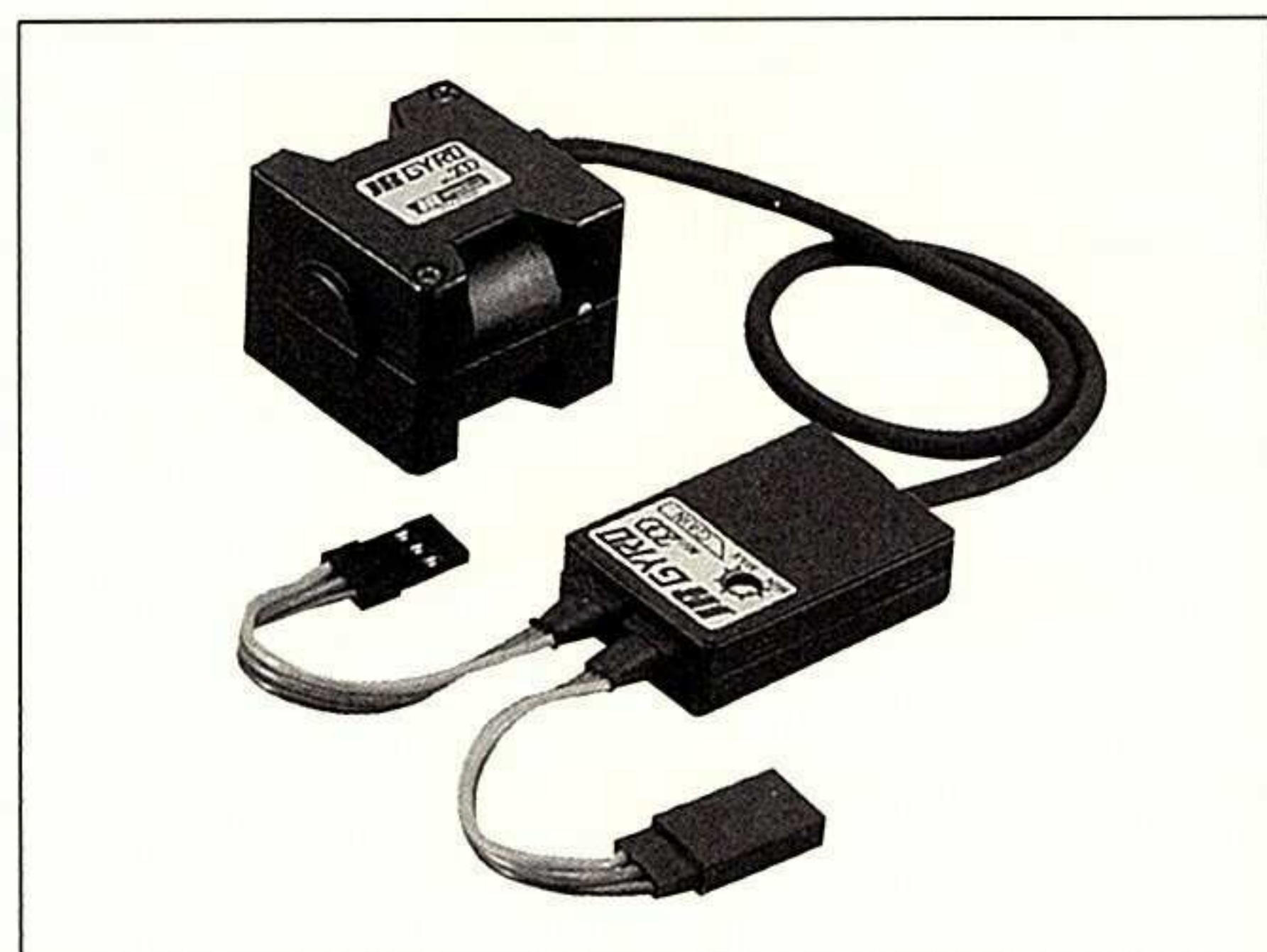
RF PACKS	ITEM #
X-347 RF pack only (PCM)	J7PRF
X-347 RF pack only (FM) NER-327 receiver	JRPFMRF
AIRBORNE PACKS	ITEM #
X-347 glider flight pack—2 901 servos	JRP7G
X-347 heli flight pack—5 517 servos	JRP7H
X-347 heli flight pack—5 507 servos	JRP7H0
X-347 heli flight pack—5 4131 servos	JRP7H1
X-347 heli flight pack—5 4021 servos	JRP7H2
X-347 heli flight pack—5 3021 servos	JRP7H4
X-347 heli flight pack—5 9021 servos	JRP7H5
X-347 pattern flight pack—4 517 servos	JRP7P
X-347 pattern flight pack—4 507 servos	JRP7P0
X-347 pattern flight pack—4 4131 servos	JRP7P1
X-347 pattern flight pack—4 4021 servos	JRP7P2
X-347 pattern flight pack—4 3021 servos	JRP7P4
X-347 pattern flight pack—4 9021 servos	JRP7P5



Dual sensitivity gyro - 120BB



Single sensitivity gyro - 130BB

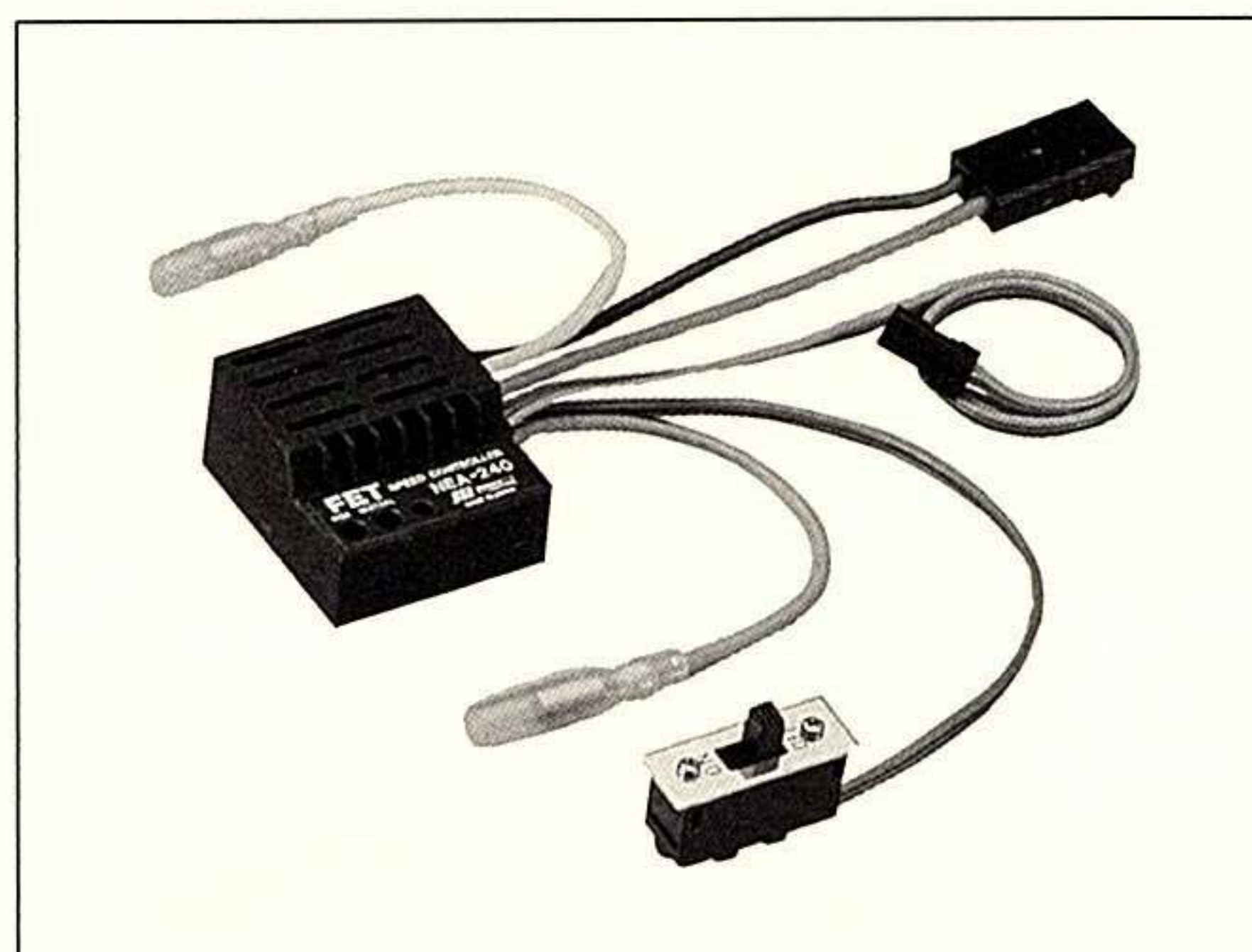


Micro gyro (electric) - 150BB

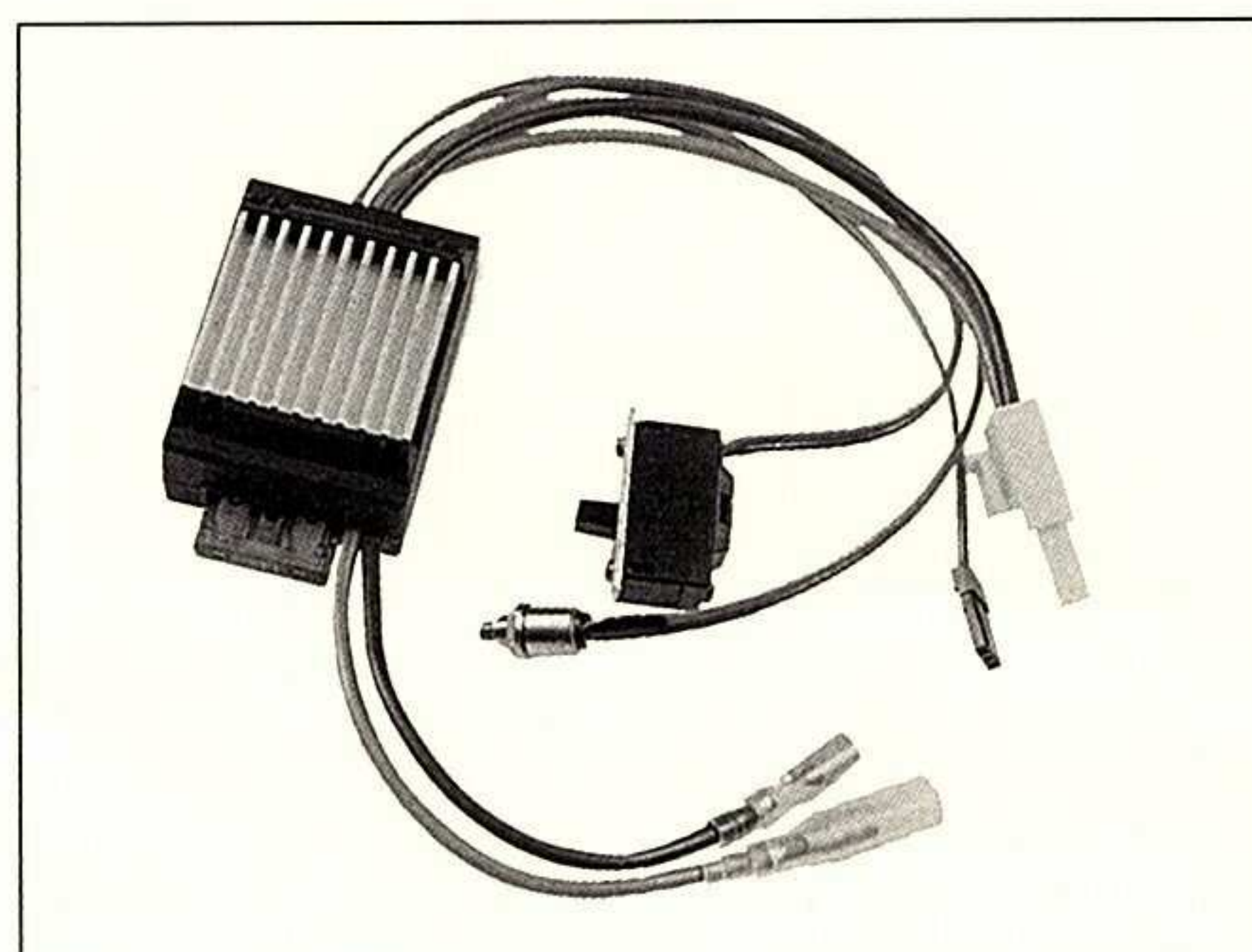
RECEIVER MODULES	ITEM #
PCM-9/Galaxy 8 (Rx)	JJRMFP**
TRANSMITTER MODULES	ITEM #
FM Tx module	JPTXFM**
PCM Tx module	JRPTXM**
GYROS	ITEM #
Dual sensitivity gyro - 120BB	JRPG120B
Single sensitivity gyro - 130BB	JRPG130BB
Micro gyro (electric) - 150BB	JRPG150BB
ELECTRONIC SPEED CONTROLS	ITEM #
Micro speed control with reverse	JRP100B
Speed control for 280 size motors	JRPA220
Speed control for 540, 550 size motors	JRPA240
Speed control — heli	JRPA250H
Speed control w/reverse	JRPA850B
High power speed control w/o reverse	JRPA900
High power speed control w/o reverse	JRPA950
High power speed control w/reverse	JRPA950B



Speed control 220

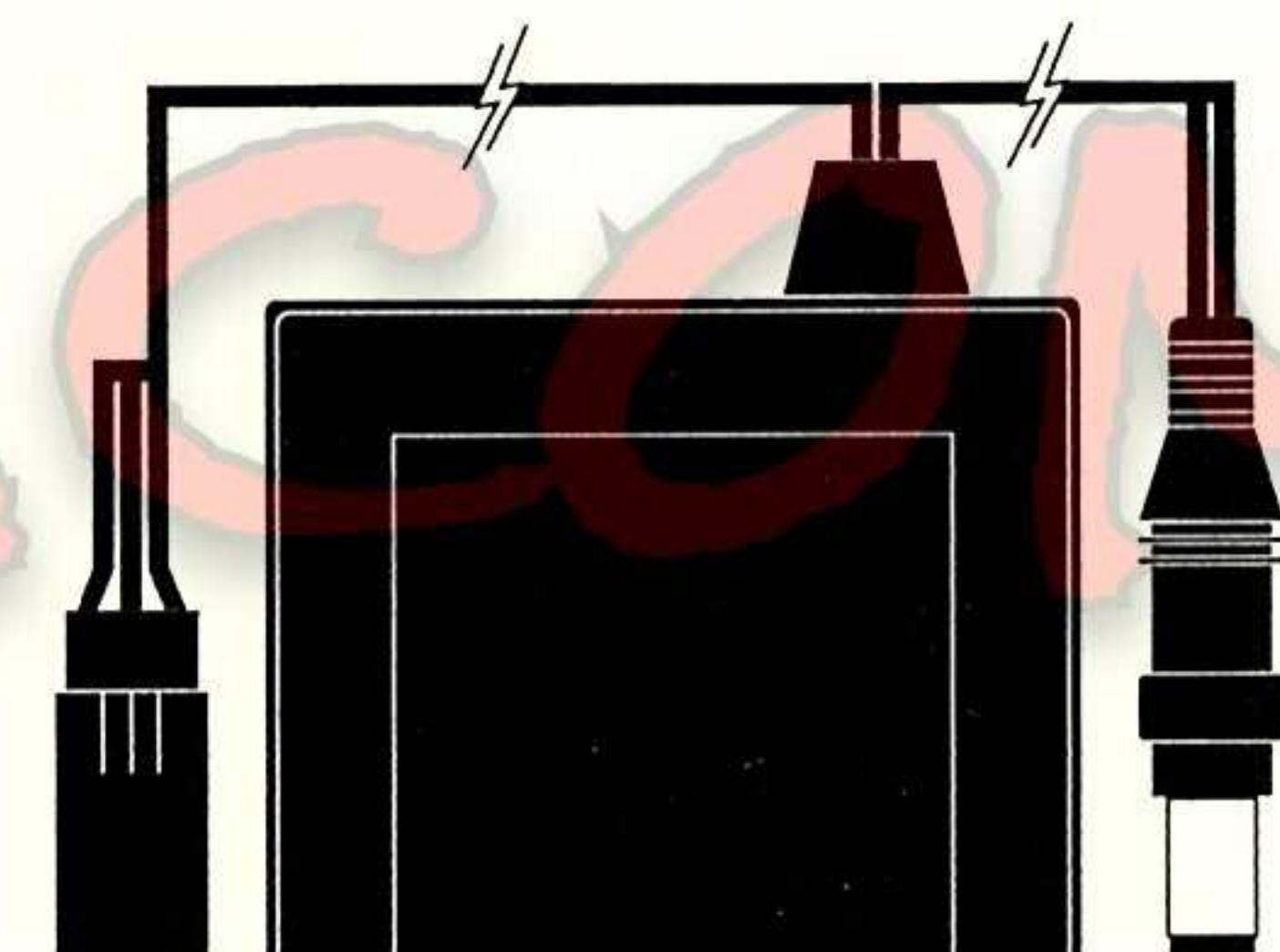


Speed control 240

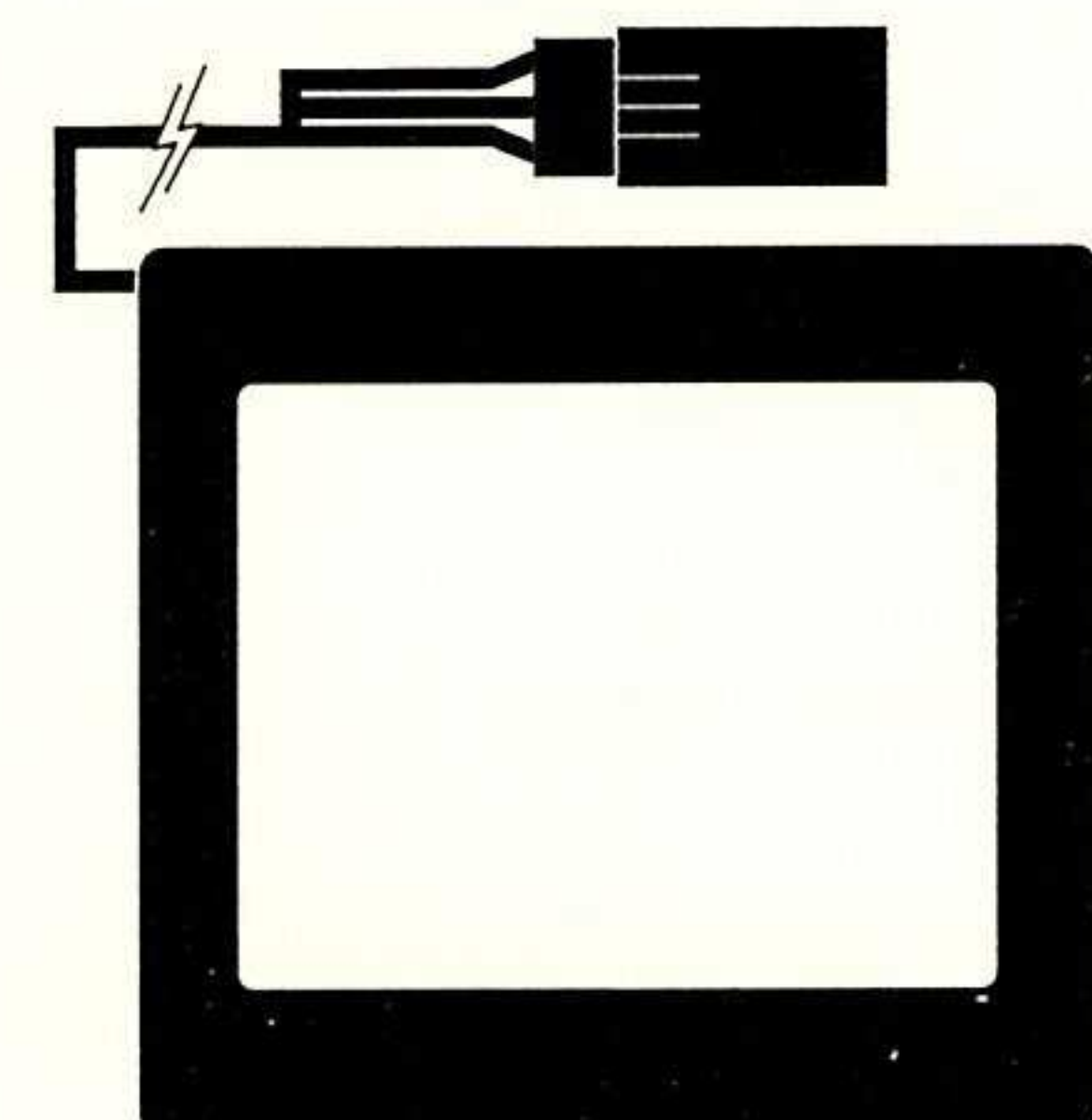


Speed control 250H

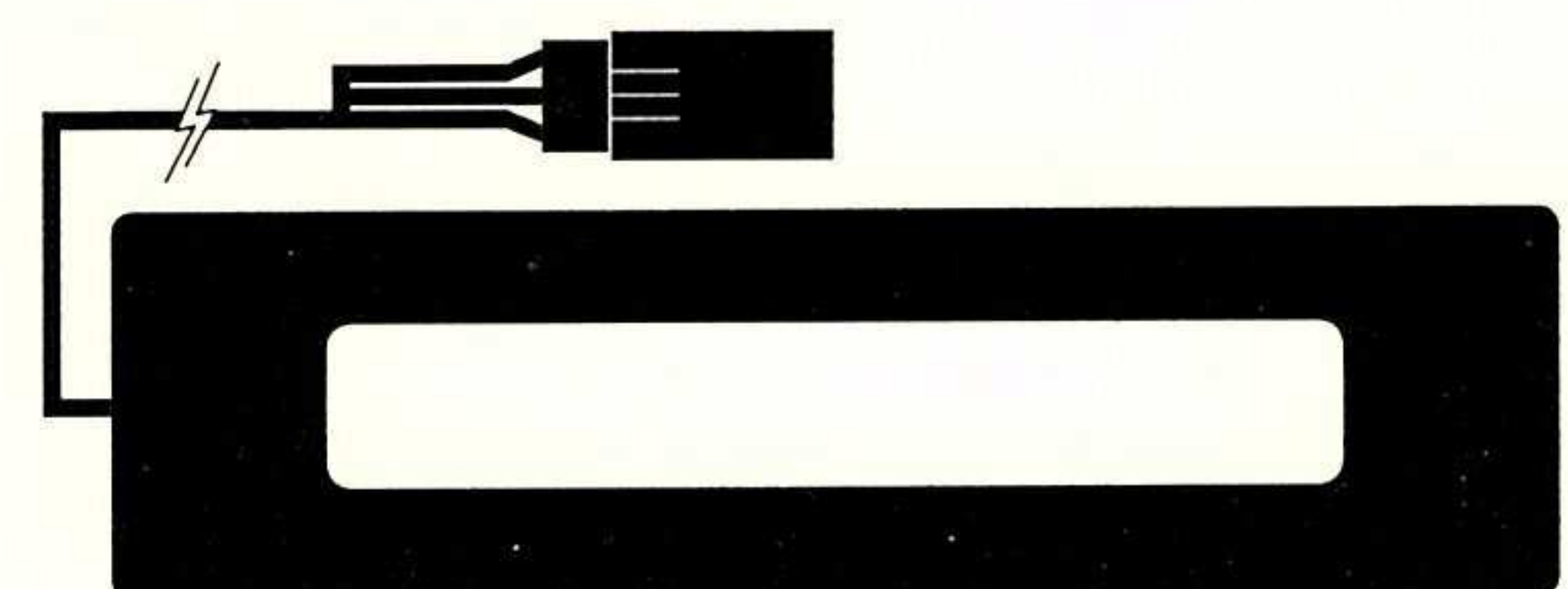
CHARGERS	ITEM #
High rate Tx/Rx	JRPC1211K
220 volt AC Tx/Rx	JRPC1212V
Standard Tx/Rx	JRPC221
AIRBORNE BATTERY PACKS	ITEM #
1000 mAh battery	JRPB1000
4 cell 1200 AE Rx pack	JRPB1200AE
1200 mAh/Rx	JRPB1200S
Rx battery pack 1300 mAh — flat	JRPB1300
270 mAh flat/Rx	JRPB270
Rx battery pack 450 mAh — flat (glider)	JRPB450
550 mAh flat/Rx	JRPB500
500 mAh square/Rx	JRPB500S
700 mAh/Rx	JRPB700
TRANSMITTER BATTERY PACKS	ITEM #
U 8/PCM 9 600 mAh	J520002
G 8/C 7/X-347 600 mAh, Also for R-756	J520004
PCM 9 SS 700 mAh	J520005
MAX series, 600 mAh, Also for Alpina	J520008
PCM-10, 750 mAh	J520010



Charger



Rx Nicd battery pack



Tx battery pack

AILERON EXTENSIONS	ITEM #
36" deluxe/gold pins	JRPA003D
22" deluxe/gold pins	JRPA003C
18" deluxe/gold pins	JRPA003B
12" deluxe/gold pins	JRPA003
12" standard economy/silver pins	JRPA003H
9" standard/silver pins	JRPA003AS
6" standard/silver pins	JRPA003FS
4" standard/silver pins	JRPA003GS
3" standard/silver pins	JRPA003ES

CORDS	ITEM #
Deluxe servo pigtail (gold pins)	JRPA05001
Receiver charge cord	JRPA05002
Transmitter charge cord	JRPA05003
Standard servo pigtail (silver pins)	JRPA05004
Trainer cord	JRPATC001
DSC cord AM system	JRPADSCAM
DSC cord FM system	JRPADSCFM
"Y" harness PPM/PCM w/ amp	JRPA002PCM



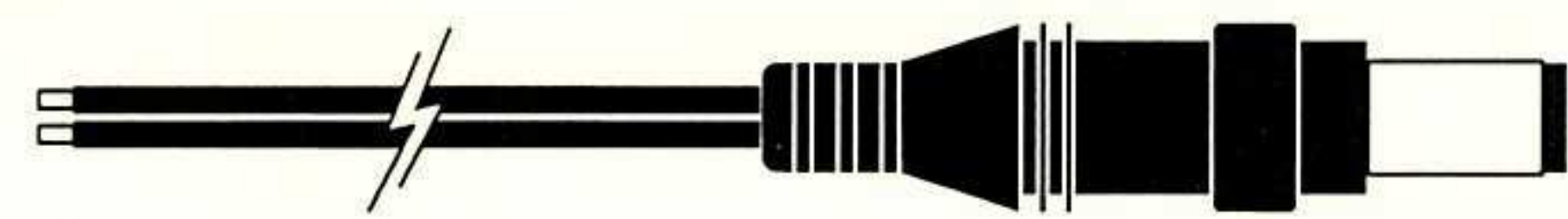
Aileron extension



Deluxe servo pigtail (gold pin)



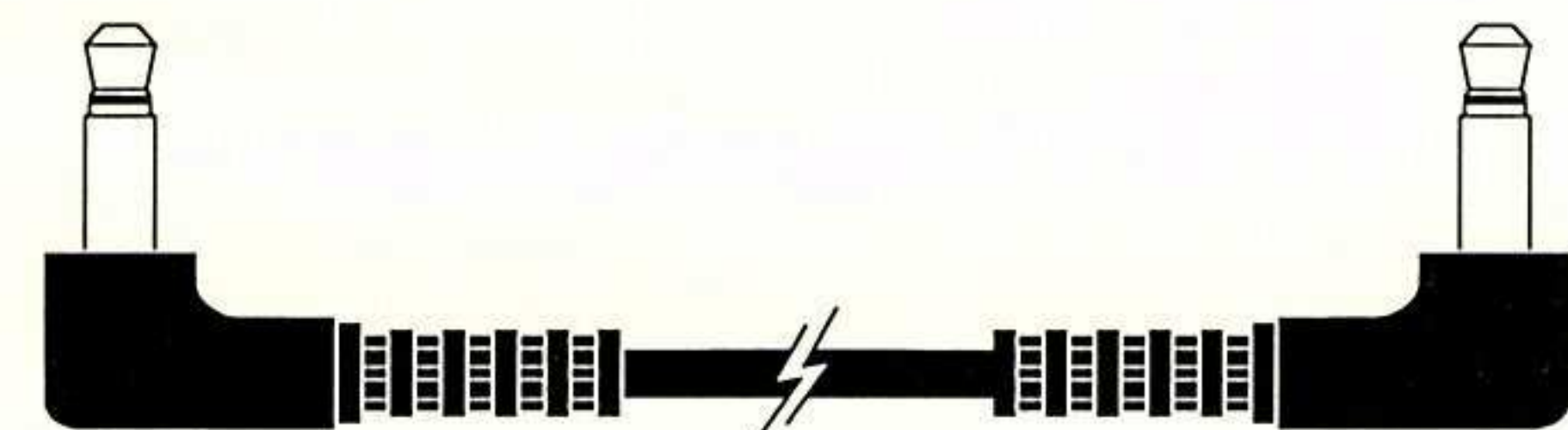
Receiver charge cord



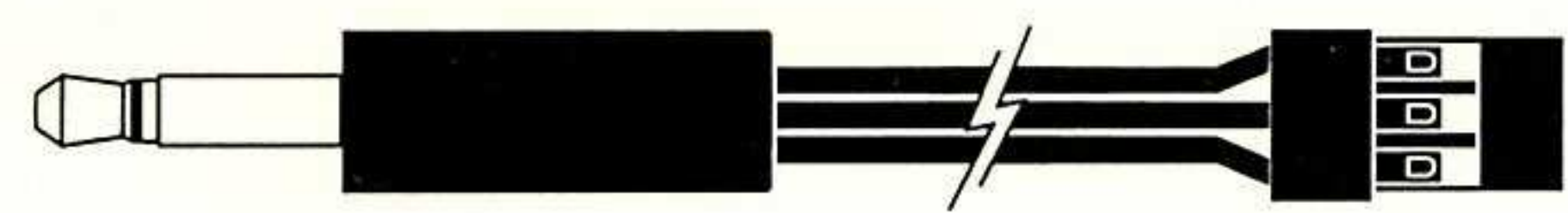
Transmitter charge cord



Standard servo pig tail (silver pins)



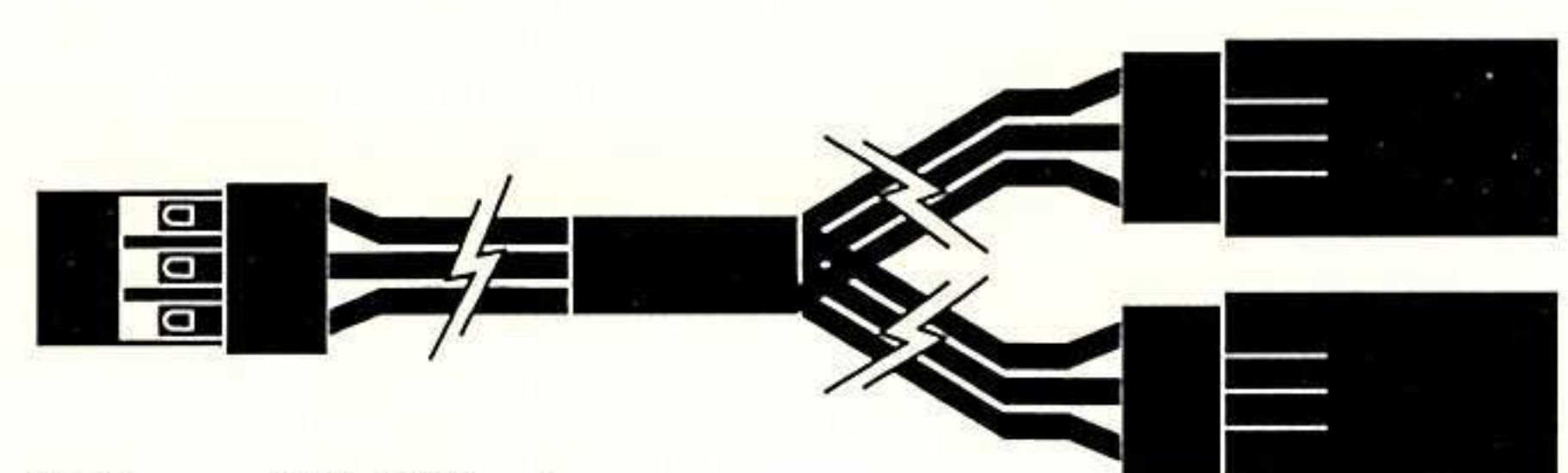
Trainer cords



DSC cord AM system

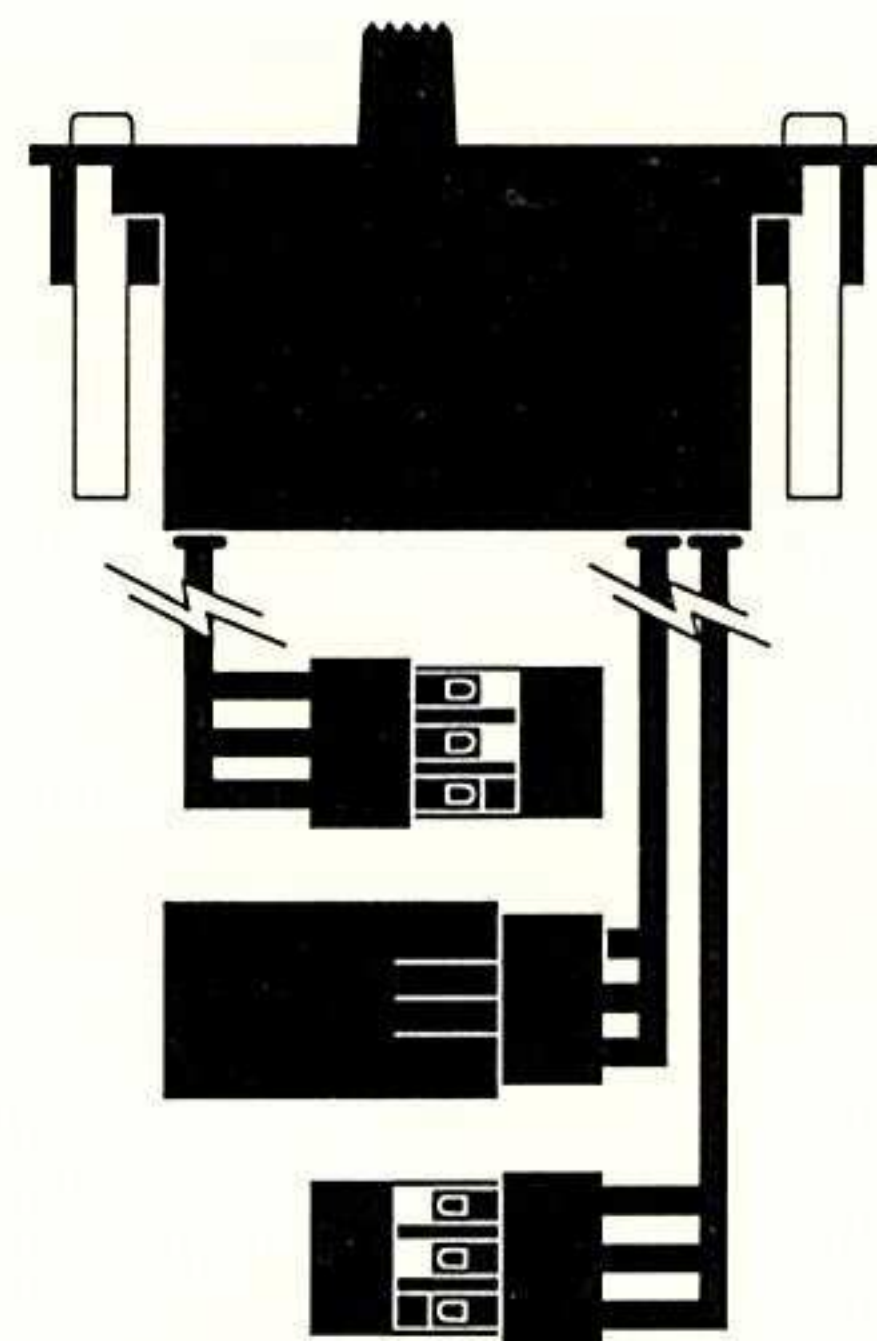


DSC cord FM system

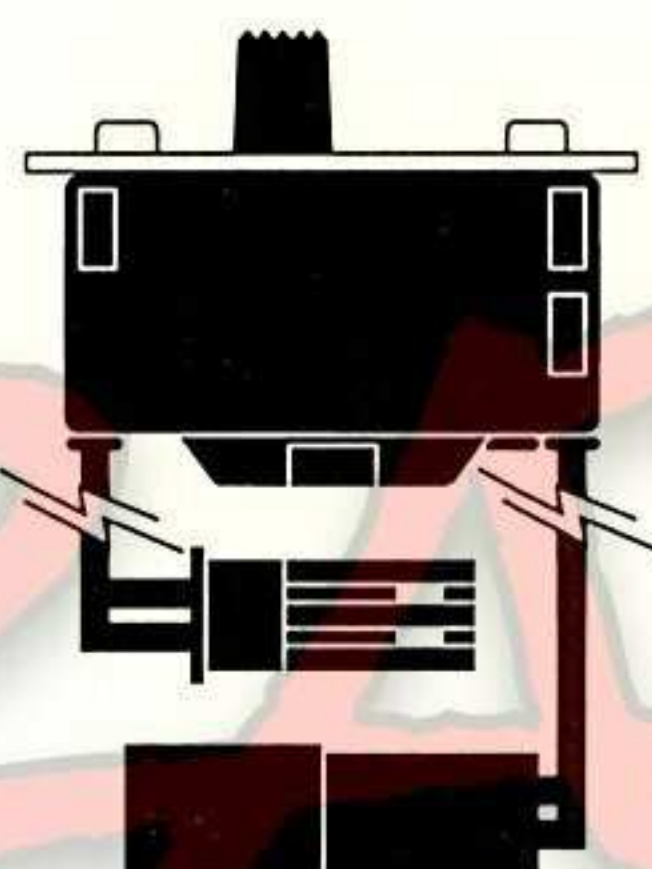


"Y" harness PPM/PCM w/amp

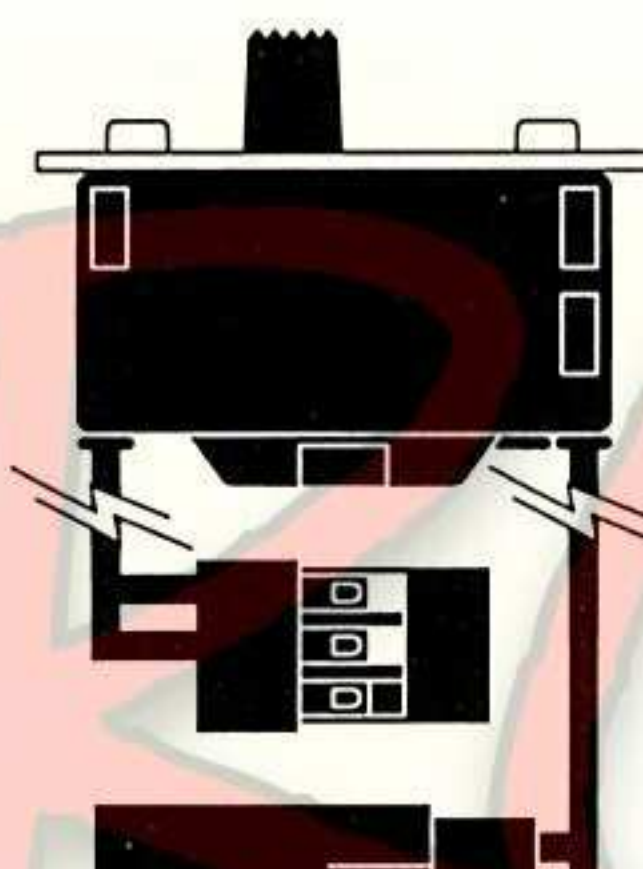
SWITCH HARNESES	ITEM #
Switch/deluxe gold w/ charging jack	JRPA001
Switch for BEC receiver	JRPA001BEC
Switch/2 channel (small)	JRPA001E
Switch/standard silver w/ charging jack	JRPA001S
Switch w/ charging socket (small)	JRPA001Z
Battery case with switch	JRPA018
Battery case with BEC plug	JRPA020BEC
Switch with BEC circuit	JRPA580



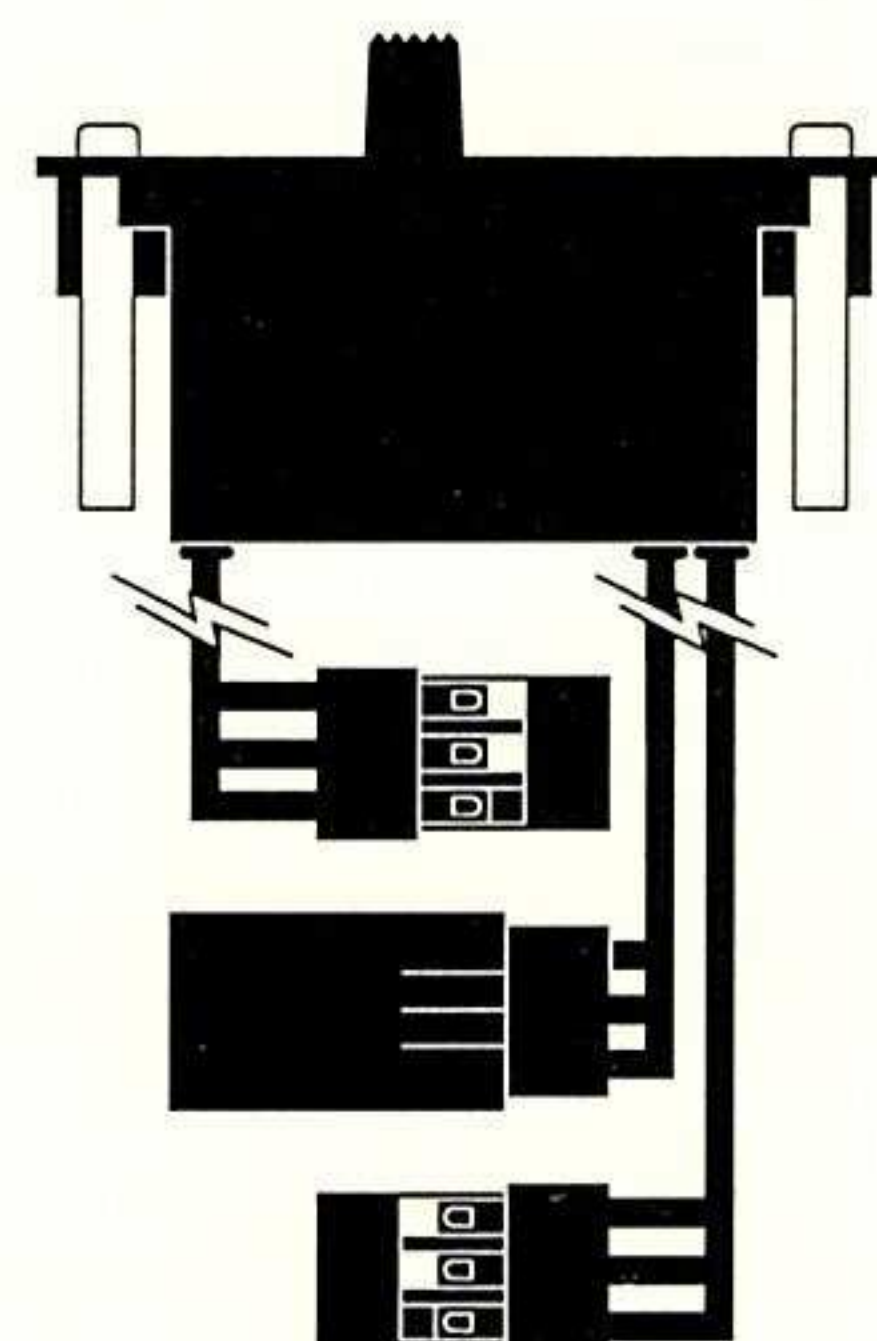
Switch harness deluxe gold w/charging jack



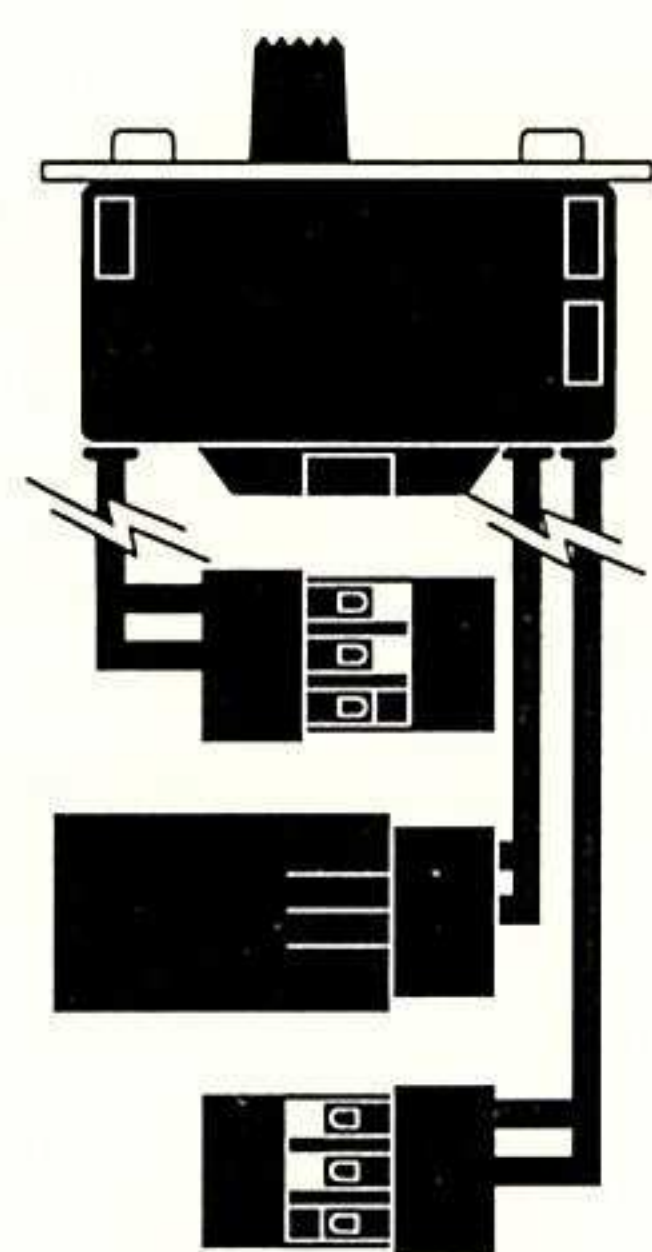
Switch harness
for BEC receiver



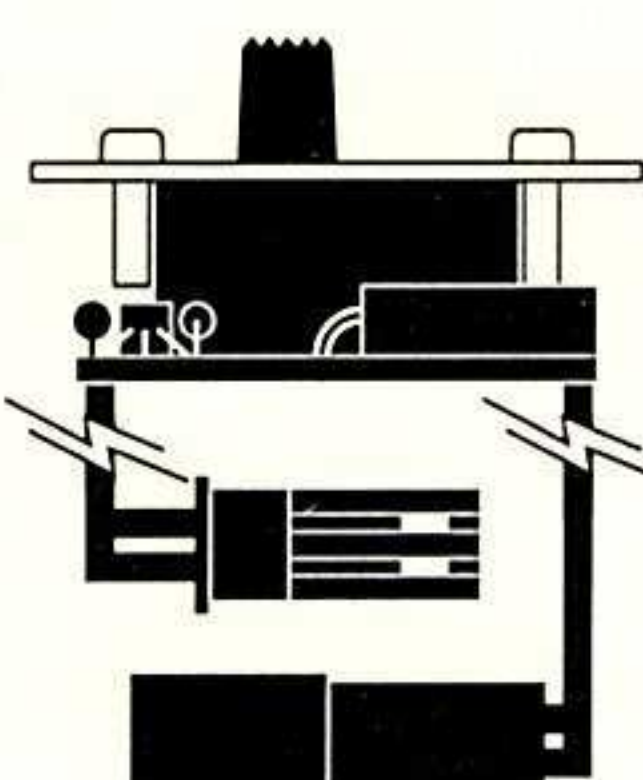
Switch harness
2 channel (small)



Switch harness standard silver w/charging jack



Switch harness
with charging socket (small)



Switch harness
with BEC circuit

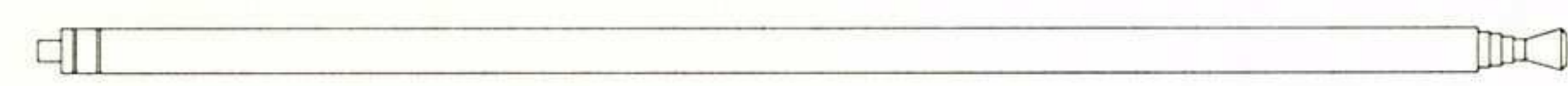
ANTENNAS	ITEM #
Max 2/Unlimited 8/Apollo/Circus 4/ PCM 9/Century 7 SS	JRPA010
Century 7/Galaxy 8/PCM-10/Max/X-347	JRPA010A
Beat 2 CX/HD2C	JRPA010B
Winner 2/Beat 2 /Alpina PCM	JRPA010C
Base loaded Tx antenna 72 MHz	
(all) except 2 channel	JRPA010E
Adapter for active antenna — Max/X-347	JRPA010MA



Max 2/Unlimited 8/Apollo/Circus 4/PCM 9/Century 7 SS



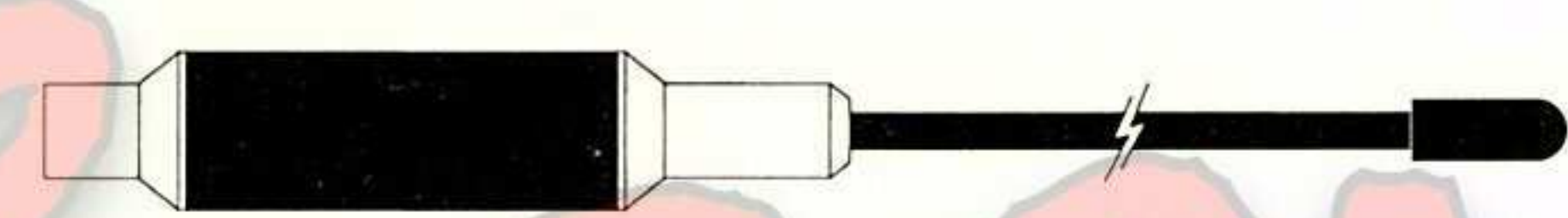
Century 7/Galaxy 8/ PCM-10/Max/X-347



Beat 2 CX/HD2C



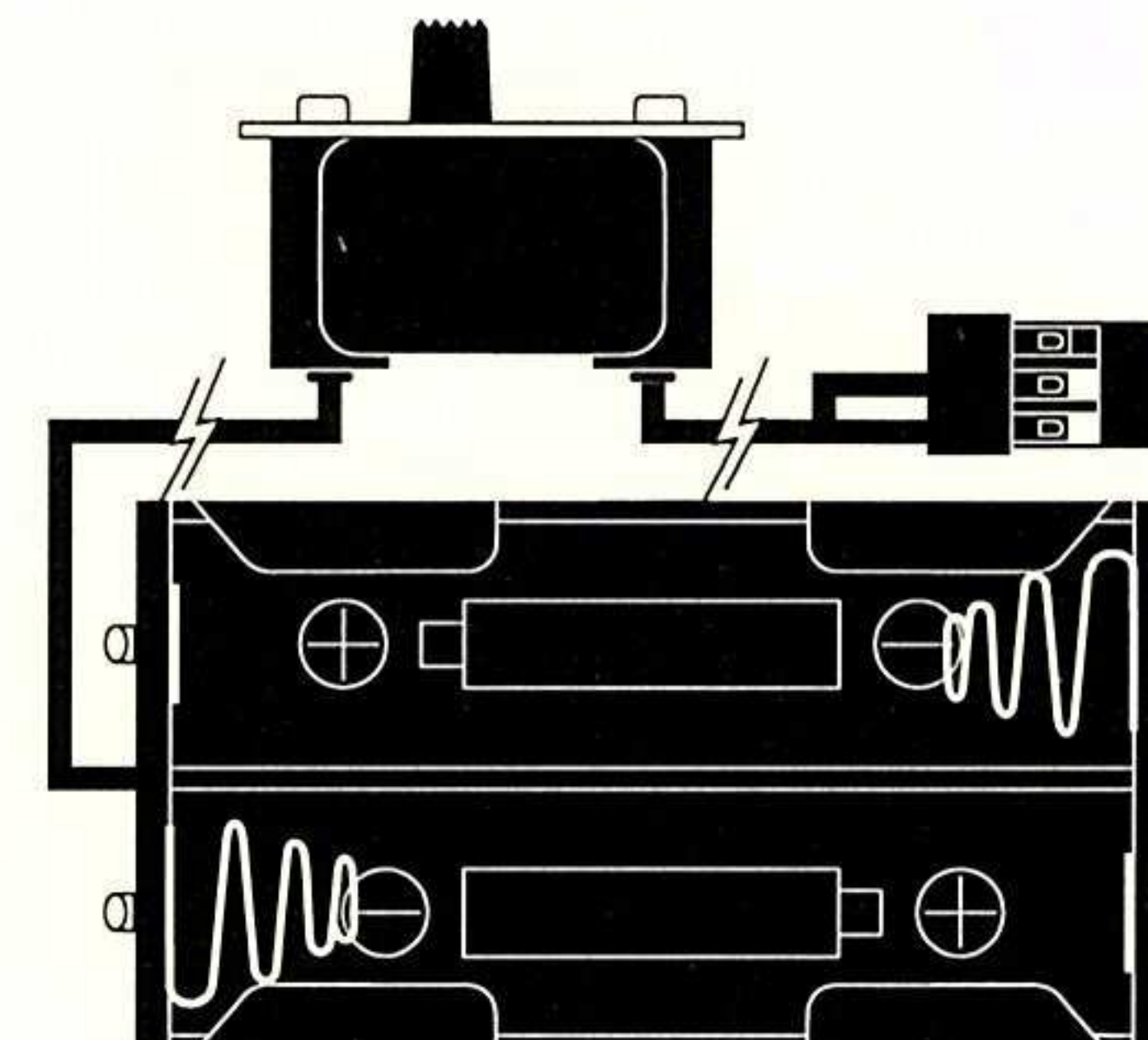
Winner 2/Beat 2 /Alpina/Alpina PCM



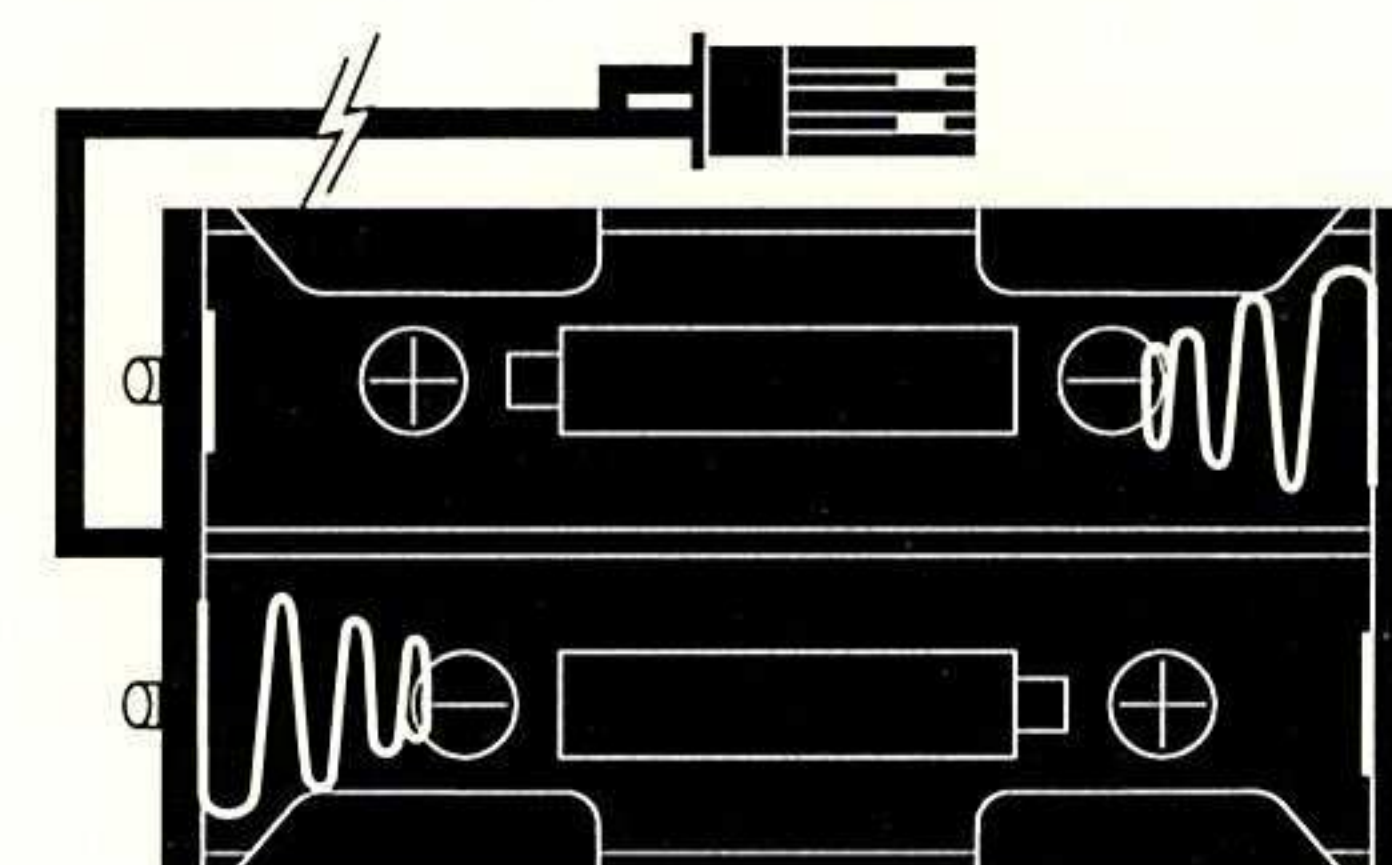
Base loaded Tx antenna 72 MHz (all) except 2 channel



Adpter for active antenna - Max/X-347



Battery case with switch



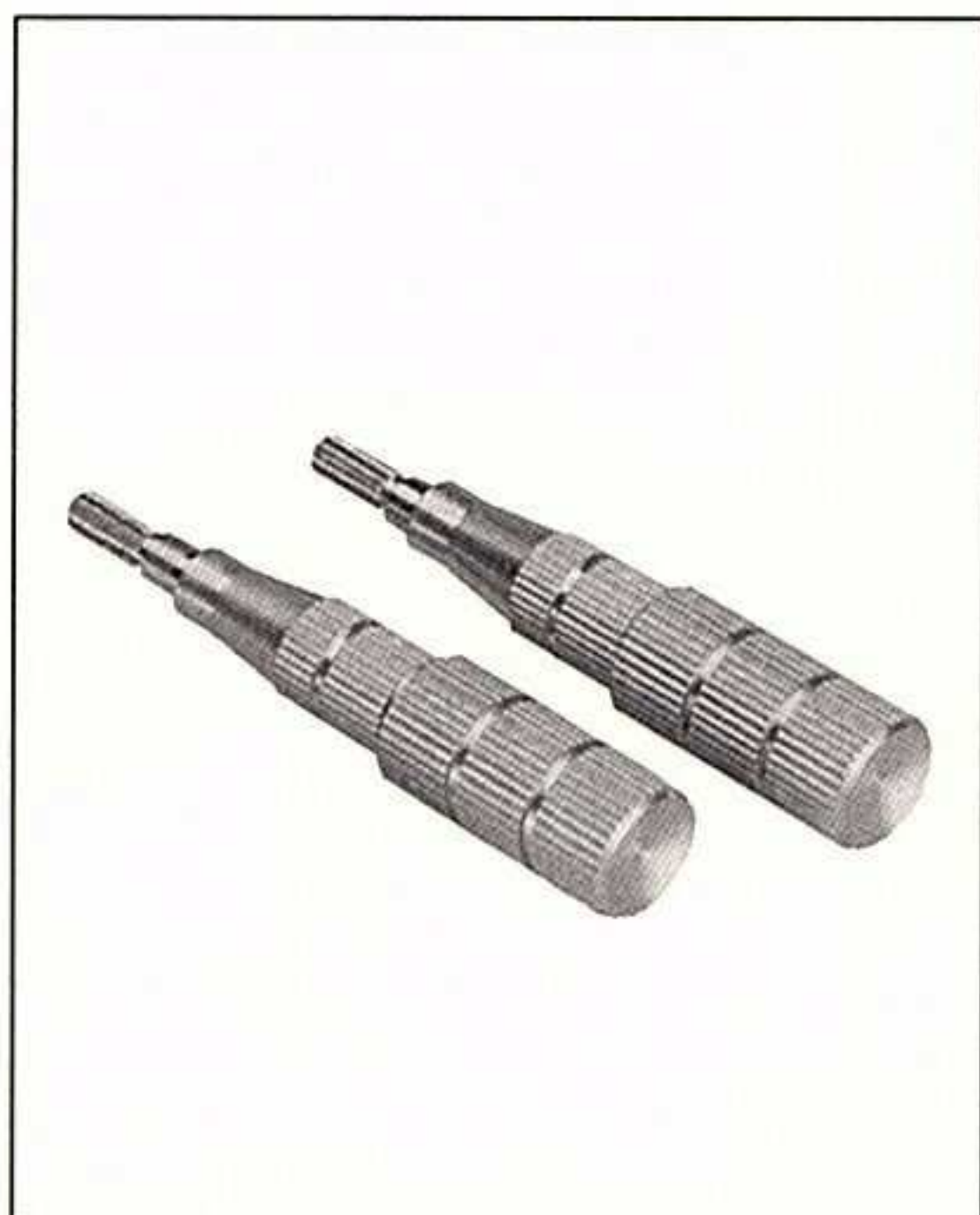
Battery case with BEC plug

AM CRYSTALS																			
Frequency	Channel	AM Crystal Sets	Rx Crystal Only	Tx Crystal Only	Frequency	Channel	AM Crystal Sets	Rx Crystal Only	Tx Crystal Only	Frequency	Channel	FM Crystal Sets	Rx Crystal Only	Tx Crystal Only	Frequency	Channel	FM Crystal Sets	Rx Crystal Only	Tx Crystal Only
26.995	1	JRPAX1	JRPAX1	JRPATX1	75.530	67	JRPAX67	JRPAX67	JRPATX67	72.370	29	JRPFX29	JRPFX29	JRPFTX29	72.370	29	JRPFX29	JRPFX29	JRPFTX29
27.045	2	JRPAX2	JRPAX2	JRPATX2	75.550	68	JRPAX68	JRPAX68	JRPATX68	72.390	30	JRPFX30	JRPFX30	JRPFTX30	72.390	30	JRPFX30	JRPFX30	JRPFTX30
27.095	3	JRPAX3	JRPAX3	JRPATX3	75.570	69	JRPAX69	JRPAX69	JRPATX69	72.410	31	JRPFX31	JRPFX31	JRPFTX31	72.410	31	JRPFX31	JRPFX31	JRPFTX31
27.145	4	JRPAX4	JRPAX4	JRPATX4	75.590	70	JRPAX70	JRPAX70	JRPATX70	72.430	32	JRPFX32	JRPFX32	JRPFTX32	72.430	32	JRPFX32	JRPFX32	JRPFTX32
27.195	5	JRPAX5	JRPAX5	JRPATX5	75.610	71	JRPAX71	JRPAX71	JRPATX71	72.450	33	JRPFX33	JRPFX33	JRPFTX33	72.450	33	JRPFX33	JRPFX33	JRPFTX33
27.255	6	JRPAX6	JRPAX6	JRPATX6	75.630	72	JRPAX72	JRPAX72	JRPATX72	72.470	34	JRPFX34	JRPFX34	JRPFTX34	72.470	34	JRPFX34	JRPFX34	JRPFTX34
72.010	11	JRPAX11	JRPAX11	JRPATX11	75.650	73	JRPAX73	JRPAX73	JRPATX73	72.490	35	JRPFX35	JRPFX35	JRPFTX35	72.490	35	JRPFX35	JRPFX35	JRPFTX35
72.030	12	JRPAX12	JRPAX12	JRPATX12	75.670	74	JRPAX74	JRPAX74	JRPATX74	72.510	36	JRPFX36	JRPFX36	JRPFTX36	72.510	36	JRPFX36	JRPFX36	JRPFTX36
72.050	13	JRPAX13	JRPAX13	JRPATX13	75.690	75	JRPAX75	JRPAX75	JRPATX75	72.530	37	JRPFX37	JRPFX37	JRPFTX37	72.530	37	JRPFX37	JRPFX37	JRPFTX37
72.070	14	JRPAX14	JRPAX14	JRPATX14	75.710	76	JRPAX76	JRPAX76	JRPATX76	72.550	38	JRPFX38	JRPFX38	JRPFTX38	72.550	38	JRPFX38	JRPFX38	JRPFTX38
72.090	15	JRPAX15	JRPAX15	JRPATX15	75.730	77	JRPAX77	JRPAX77	JRPATX77	72.570	39	JRPFX39	JRPFX39	JRPFTX39	72.570	39	JRPFX39	JRPFX39	JRPFTX39
72.110	16	JRPAX16	JRPAX16	JRPATX16	75.750	78	JRPAX78	JRPAX78	JRPATX78	72.590	40	JRPFX40	JRPFX40	JRPFTX40	72.590	40	JRPFX40	JRPFX40	JRPFTX40
72.130	17	JRPAX17	JRPAX17	JRPATX17	75.770	79	JRPAX79	JRPAX79	JRPATX79	72.610	41	JRPFX41	JRPFX41	JRPFTX41	72.610	41	JRPFX41	JRPFX41	JRPFTX41
72.150	18	JRPAX18	JRPAX18	JRPATX18	75.790	80	JRPAX80	JRPAX80	JRPATX80	72.630	42	JRPFX42	JRPFX42	JRPFTX42	72.630	42	JRPFX42	JRPFX42	JRPFTX42
72.170	19	JRPAX19	JRPAX19	JRPATX19	75.810	81	JRPAX81	JRPAX81	JRPATX81	72.650	43	JRPFX43	JRPFX43	JRPFTX43	72.650	43	JRPFX43	JRPFX43	JRPFTX43
72.190	20	JRPAX20	JRPAX20	JRPATX20	75.830	82	JRPAX82	JRPAX82	JRPATX82	72.670	44	JRPFX44	JRPFX44	JRPFTX44	72.670	44	JRPFX44	JRPFX44	JRPFTX44
72.210	21	JRPAX21	JRPAX21	JRPATX21	75.850	83	JRPAX83	JRPAX83	JRPATX83	72.690	45	JRPFX45	JRPFX45	JRPFTX45	72.690	45	JRPFX45	JRPFX45	JRPFTX45
72.230	22	JRPAX22	JRPAX22	JRPATX22	75.870	84	JRPAX84	JRPAX84	JRPATX84	72.710	46	JRPFX46	JRPFX46	JRPFTX46	72.710	46	JRPFX46	JRPFX46	JRPFTX46
72.250	23	JRPAX23	JRPAX23	JRPATX23	75.890	85	JRPAX85	JRPAX85	JRPATX85	72.730	47	JRPFX47	JRPFX47	JRPFTX47	72.730	47	JRPFX47	JRPFX47	JRPFTX47
72.270	24	JRPAX24	JRPAX24	JRPATX24	75.910	86	JRPAX86	JRPAX86	JRPATX86	72.750	48	JRPFX48	JRPFX48	JRPFTX48	72.750	48	JRPFX48	JRPFX48	JRPFTX48
72.290	25	JRPAX25	JRPAX25	JRPATX25	75.930	87	JRPAX87	JRPAX87	JRPATX87	72.770	49	JRPFX49	JRPFX49	JRPFTX49	72.770	49	JRPFX49	JRPFX49	JRPFTX49
72.310	26	JRPAX26	JRPAX26	JRPATX26	75.950	88	JRPAX88	JRPAX88	JRPATX88	72.790	50	JRPFX50	JRPFX50	JRPFTX50	72.790	50	JRPFX50	JRPFX50	JRPFTX50
72.330	27	JRPAX27	JRPAX27	JRPATX27	75.970	89	JRPAX89	JRPAX89	JRPATX89	72.810	51	JRPFX51	JRPFX51	JRPFTX51	72.810	51	JRPFX51	JRPFX51	JRPFTX51
72.350	28	JRPAX28	JRPAX28	JRPATX28	75.990	90	JRPAX90	JRPAX90	JRPATX90	72.830	52	JRPFX52	JRPFX52	JRPFTX52	72.830	52	JRPFX52	JRPFX52	JRPFTX52
72.370	29	JRPAX29	JRPAX29	JRPATX29	FM CRYSTALS					72.850	53	JRPFX53	JRPFX53	JRPFTX53	72.850	53	JRPFX53	JRPFX53	JRPFTX53
72.390	30	JRPAX30	JRPAX30	JRPATX30	Frequency	Channel	FM Crystal Sets	Rx Crystal Only	Tx Crystal Only	72.870	54	JRPFX54	JRPFX54	JRPFTX54	72.870	54	JRPFX54	JRPFX54	JRPFTX54
72.410	31	JRPAX31	JRPAX31	JRPATX31	50.800	00	JRPFX00	JRPFX00	JRPFTX00	72.890	55	JRPFX55	JRPFX55	JRPFTX55	72.890	55	JRPFX55	JRPFX55	JRPFTX55
72.430	32	JRPAX32	JRPAX32	JRPATX32	50.820	01	JRPFX01	JRPFX01	JRPFTX01	72.910	56	JRPFX56	JRPFX56	JRPFTX56	72.910	56	JRPFX56	JRPFX56	JRPFTX56
72.450	33	JRPAX33	JRPAX33	JRPATX33	50.840	02	JRPFX02	JRPFX02	JRPFTX02	72.930	57	JRPFX57	JRPFX57	JRPFTX57	72.930	57	JRPFX57	JRPFX57	JRPFTX57
72.470	34	JRPAX34	JRPAX34	JRPATX34	50.860	03	JRPFX03	JRPFX03	JRPFTX03	72.950	58	JRPFX58	JRPFX58	JRPFTX58	72.950	58	JRPFX58	JRPFX58	JRPFTX58
72.490	35	JRPAX35	JRPAX35	JRPATX35	50.880	04	JRPFX04	JRPFX04	JRPFTX04	72.970	59	JRPFX59	JRPFX59	JRPFTX59	72.970	59	JRPFX59	JRPFX59	JRPFTX59
72.510	36	JRPAX36	JRPAX36	JRPATX36	50.900	05	JRPFX05	JRPFX05	JRPFTX05	72.990	60	JRPFX60	JRPFX60	JRPFTX60	72.990	60	JRPFX60	JRPFX60	JRPFTX60
72.530	37	JRPAX37	JRPAX37	JRPATX37	50.920	06	JRPFX06	JRPFX06	JRPFTX06	75.410	61	JRPFX61	JRPFX61	JRPFTX61	75.410	61	JRPFX61	JRPFX61	JRPFTX61
72.550	38	JRPAX38	JRPAX38	JRPATX38	50.940	07	JRPFX07	JRPFX07	JRPFTX07	75.430	62	JRPFX62	JRPFX62	JRPFTX62	75.430	62	JRPFX62	JRPFX62	JRPFTX62
72.570	39	JRPAX39	JRPAX39	JRPATX39	50.960	08	JRPFX08	JRPFX08	JRPFTX08	75.450	63	JRPFX63	JRPFX63	JRPFTX63	75.450	63	JRPFX63	JRPFX63	JRPFTX63
72.590	40	JRPAX40	JRPAX40	JRPATX40	50.980	09	JRPFX09	JRPFX09	JRPFTX09	75.470	64	JRPFX64	JRPFX64	JRPFTX64	75.470	64	JRPFX64	JRPFX64	JRPFTX64
72.610	41	JRPAX41	JRPAX41	JRPATX41	51.100	A1	JRPFXA1	JRPFXA1	JRPFTXA1	75.490	65	JRPFX65	JRPFX65	JRPFTX65	75.490	65	JRPFX65	JRPFX65	JRPFTX65
72.630	42	JRPAX42	JRPAX42	JRPATX42	53.100	A2	JRPFXA2	JRPFXA2	JRPFTXA2	75.510	66	JRPFX66	JRPFX66	JRPFTX66	75.510	66	JRPFX66	JRPFX66	JRPFTX66
72.650	43	JRPAX43	JRPAX43	JRPATX43	53.200	A2	JRPFXA2	JRPFXA2	JRPFTXA2	75.530	67	JRPFX67	JRPFX67	JRPFTX67	75.530	67	JRPFX67	JRPFX67	JRPFTX67
72.670	44	JRPAX44	JRPAX44	JRPATX44	53.300	A3	JRPFXA3	JRPFXA3	JRPFTXA3	75.550	68	JRPFX68	JRPFX68	JRPFTX68	75.550	68	JRPFX68	JRPFX68	JRPFTX68
72.690	45	JRPAX45	JRPAX45	JRPATX45	53.400	A4	JRPFXA4	JRPFXA4	JRPFTXA4	75.570	69	JRPFX69	JRPFX69	JRPFTX69	75.570	69	JRPFX69	JRPFX69	JRPFTX69
72.710	46	JRPAX46	JRPAX46	JRPATX46	53.500	A5	JRPFXA5	JRPFXA5	JRPFTXA5	75.590	70	JRPFX70	JRPFX70	JRPFTX70	75.590	70	JRPFX70	JRPFX70	JRPFTX70
72.730	47	JRPAX47	JRPAX47	JRPATX47	53.600	A6	JRPFXA6	JRPFXA6	JRPFTXA6	75.610	71	JRPFX71	JRPFX71	JRPFTX71	75.610	71	JRPFX71	JRPFX71	JRPFTX71
72.750	48	JRPAX48	JRPAX48	JRPATX48	53.700	A7	JRPFXA7	JRPFXA7	JRPFTXA7	75.630	72	JRPFX72	JRPFX72	JRPFTX72	75.630	72	JRPFX72	JRPFX72	JRPFTX72
72.770	49	JRPAX49	JRPAX49	JRPATX49	53.800	A8	JRPFXA8	JRPFXA8	JRPFTXA8	75.650	73	JRPFX73	JRPFX73	JRPFTX73	75.650	73	JRPFX73	JRPFX73	JRPFTX73
72.790	50	JRPAX50	JRPAX50	JRPATX50	53.900	A9	JRPFXA9	JRPFXA9	JRPFTXA9	75.670	74	JRPFX74	JRPFX74	JRPFTX74	75.670	74	JRPFX74	JRPFX74	JRPFTX74
72.810	51	JRPAX51	JRPAX51	JRPATX51	72.010	11	JRPFX11	JRPFX11	JRPFTX11	75.690	75	JRPFX75	JRPFX75	JRPFTX75	75.690	75	JRPFX75	JRPFX75	JRPFTX75
72.830	52	JRPAX52	JRPAX52	JRPATX52	72.030	12	JRPFX12	JRPFX12	JRPFTX12	75.710	76	JRPFX76	JRPFX76	JRPFTX76	75.710	76	JRPFX76	JRPFX76	JRPFTX76
72.850	53	JRPAX53	JRPAX53	JRPATX53	72.050	13	JRPFX13	JRPFX13	JRPFTX13	75.730	77	JRPFX77	JRPFX77	JRPFTX77	75.730	77	JRPFX77	JRPFX77	JRPFTX77
72.870	54	JRPAX54	JRPAX54	JRPATX54	72.070	14	JRPFX14	JRPFX14	JRPFTX14	75.750	78	JRPFX78	JRPFX78	JRPFTX78	75.750	78	JRPFX78	JRPFX78	JRPFTX78
72.890	55	JRPAX55	JRPAX55	JRPATX55	72.090	15	JRPFX15	JRPFX15	JRPFTX15	75.770	79	JRPFX79	JRPFX79	JRPFTX79	75.770	79	JRPFX79	JRPFX79	JRPFTX79
72.910	56	JRPAX56	JRPAX56	JRPATX56	72.110	16	JRPFX16	JRPFX16	JRPFTX16	75.790	80	JRPFX80	JRPFX80	JRPFTX80	75.790	80	JRPFX80	JRPFX80	JRPFTX80
72.930	57	JRPAX57	JRPAX57	JRPATX57	72.130	17	JRPFX17	JRPFX17	JRPFTX17	75.810	81	JRPFX81	JRPFX81	JRPFTX81	75.810	81	JRPFX81	JRPFX81	JRPFTX81
72.950	58	JRPAX58	JRPAX58	JRPATX58	72.150	18	JRPFX18	JRPFX18	JRPFTX18	75.830	82	JRPFX82	JRPFX82	JRPFTX82	75.830	82	JRPFX82	JRPFX82	JRPFTX82
72.970	59	JRPAX59	JRPAX59	JRPATX59	72.170	19	JRPFX19	JRPFX19	JRPFTX19	75.850	83	JRPFX83	JRPFX83	JRPFTX83	75.850	83	JRPFX83	JRPFX83	JRPFTX83
72.990	60	JRPAX60	JRPAX60	JRPATX60	72.190	20	JRPFX20	JRPFX20	JRPFTX20	75.870	84	JRPFX84	JRPFX84	JRPFTX84	75.870	84	JRPFX84	JRPFX84	JRPFTX84
75.410	61	JRPAX61	JRPAX61	JRPATX61	72.210	21	JRPFX21	JRPFX21	JRPFTX21	75.890	85	JRPFX85	JRPFX85	JRPFTX85	75.890	85	JRPFX85	JRPFX85	JRPFTX85
75.430	62	JRPAX62	JRPAX62	JRPATX62	72.230	22	JRPFX22	JRPFX22	JRPFTX22	75.910	86	JRPFX86	JRPFX86	JRPFTX86	75.910	86	JRPFX86	JRPFX86	JRPFTX86
75.450	63	JRPAX63	JRPAX63	JRPATX63	72.250	23	JRPFX23	JRPFX23	JRPFTX23	75.930	87	JRPFX87	JRPFX87	JRPFTX87	75.930	87	JRPFX87	JRPFX87	JRPFTX87
75.470	64	JRPAX64	JRPAX64	JRPATX64	72.270	24	JRPFX24	JRPFX24	JRPFTX24	75.950	88	JRPFX88	JRPFX88	JRPFTX88	75.950	88	JRPFX88	JRPFX88	JRPFTX88
75.490	65	JRPAX65	JRPAX65	JRPATX65	72.290	25	JRPFX25	JRPFX25	JRPFTX25	75.970	89	JRPFX89	JRPFX89	JRPFTX89	75.970	89	JRPFX89	JRPFX89	JRPFTX89
75.510	66	JRPAX66	JRPAX66	JRPATX66	72.310	26	JRPFX26	JRPFX26	JRPFTX26	75.990	90	JRPFX90	JRPFX90	JRPFTX90	75.990	90	JRPFX90	JRPFX90	JRPFTX90
					72.330	27	JRPFX27	JRPFX27	JRPFTX27										
					72.350	28	JRPFX28	JRPFX28	JRPFTX28										

GLOSSARY OF RADIO TERMS

- ABC&W** Anti-Blocking, Cross Modulation with Window is a JR exclusive designed to defeat outside interference.
- <

ACCESSORIES	ITEM #
JR Tx case — standard	HD122
JR Tx case — deluxe	HD123
Fluorescent green JR hat	HDFGJ
Fluorescent pink JR hat	HDFPJ
Foam wheel (Alpina)	JRPAFWHL
Charge receptacle	JRPA024
Long gimbal sticks	JRPA047
Reverse amp	JRPA500
JR flying glasses — yellow	JRPSHADES Y
JR flying glasses — orange	JRPSHADES O
Neck strap 1" wide	JRPA023A
Hand strap	JRPA023B
PCM-10 grip (rubber)-pair	JRPABG910
Tx & Rx battery expanded scale voltmeter	JRPC380
JR jacket blue — small	JRCZ5000S
JR jacket blue — medium	JRCZ5000M
JR jacket blue — large	JRCZ5000L
JR jacket blue — x-large	JRCZ5000XL
MANUALS	
PCM-10 Helicopter manual	JRPMPCM10H
PCM-10 Pattern manual	JRPMPCM10P
X-347 manual	JRPMX347



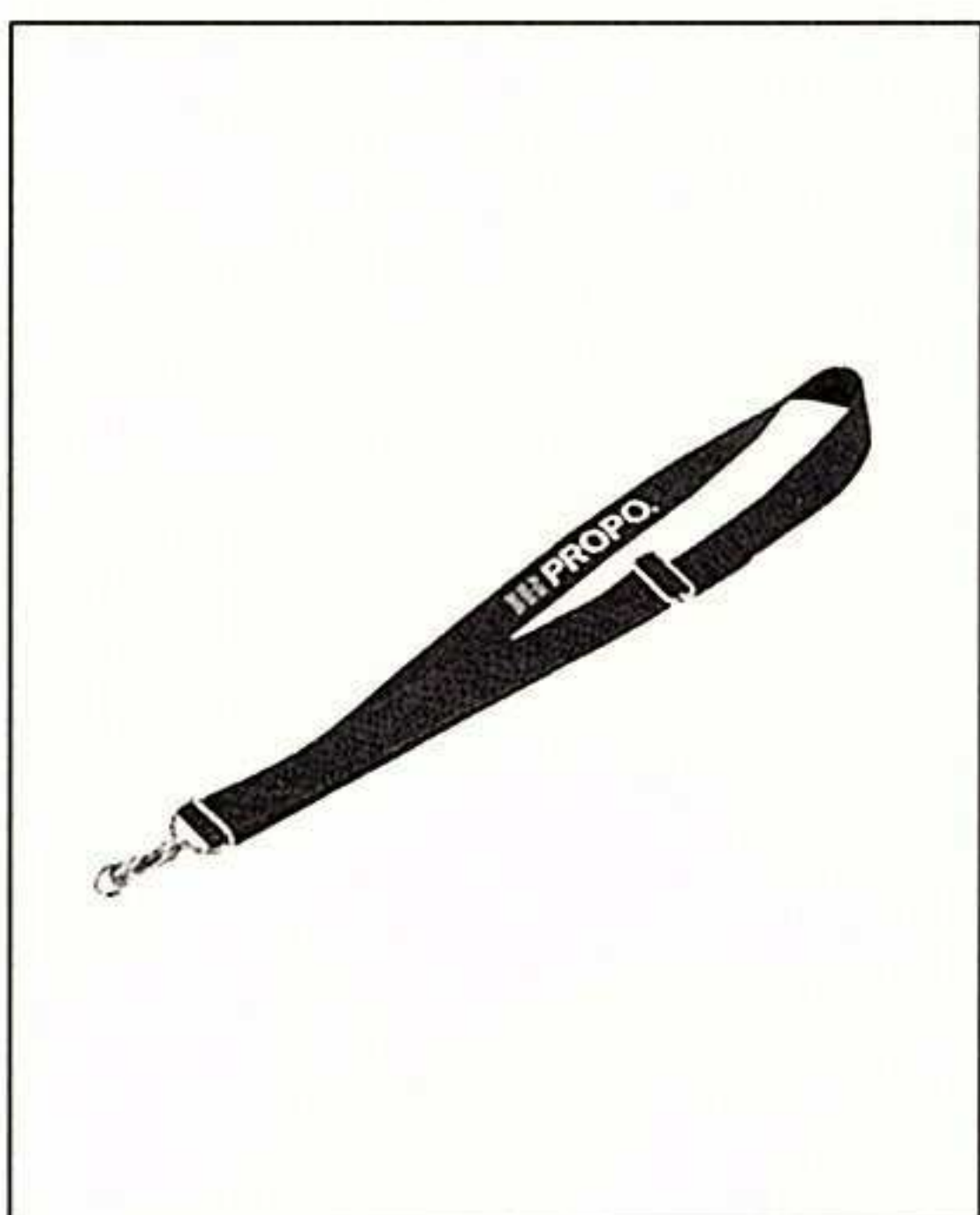
Long gimbal sticks



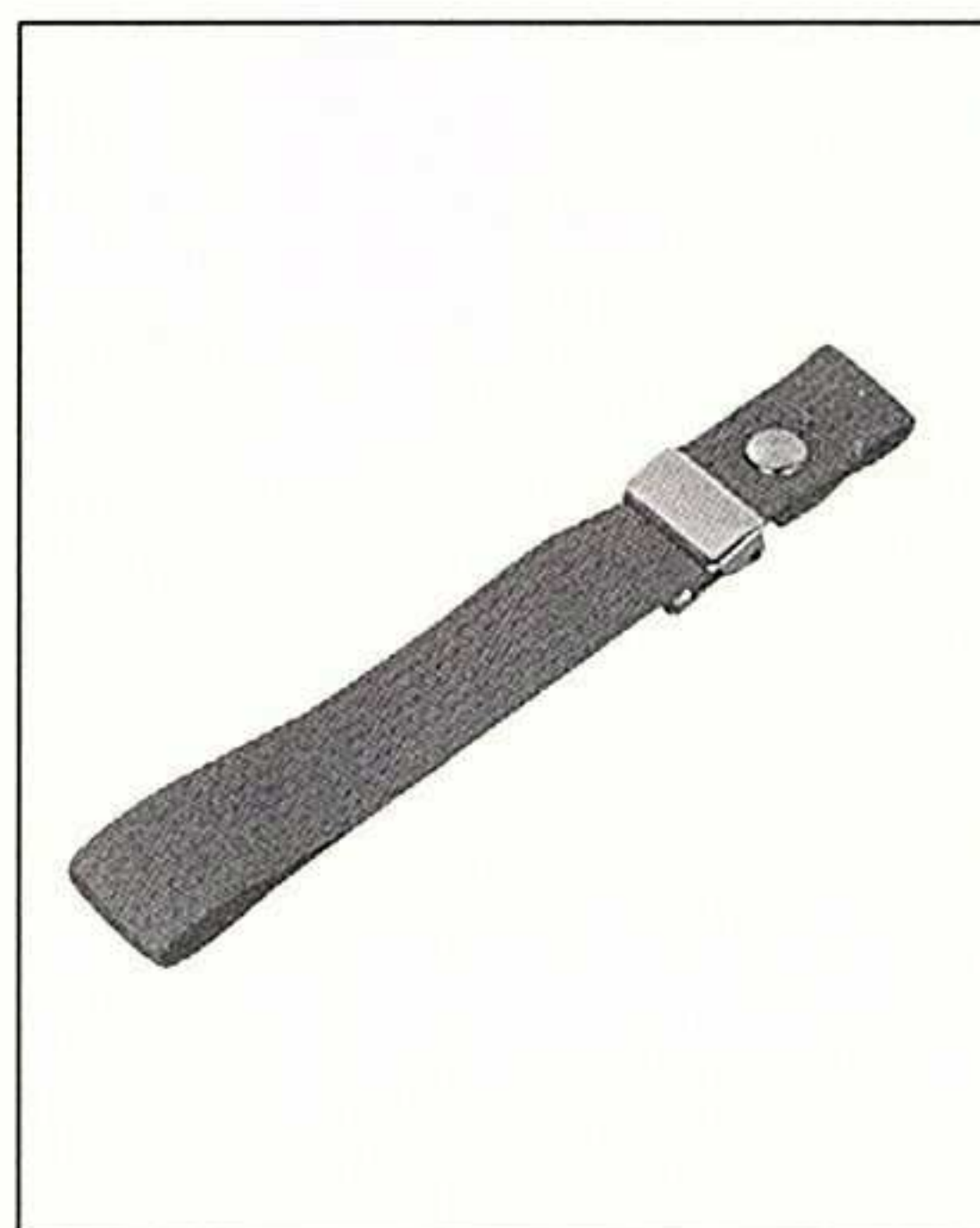
Foam wheel cover (Alpina)



PCM-10 Grips



Neck strap 1" wide



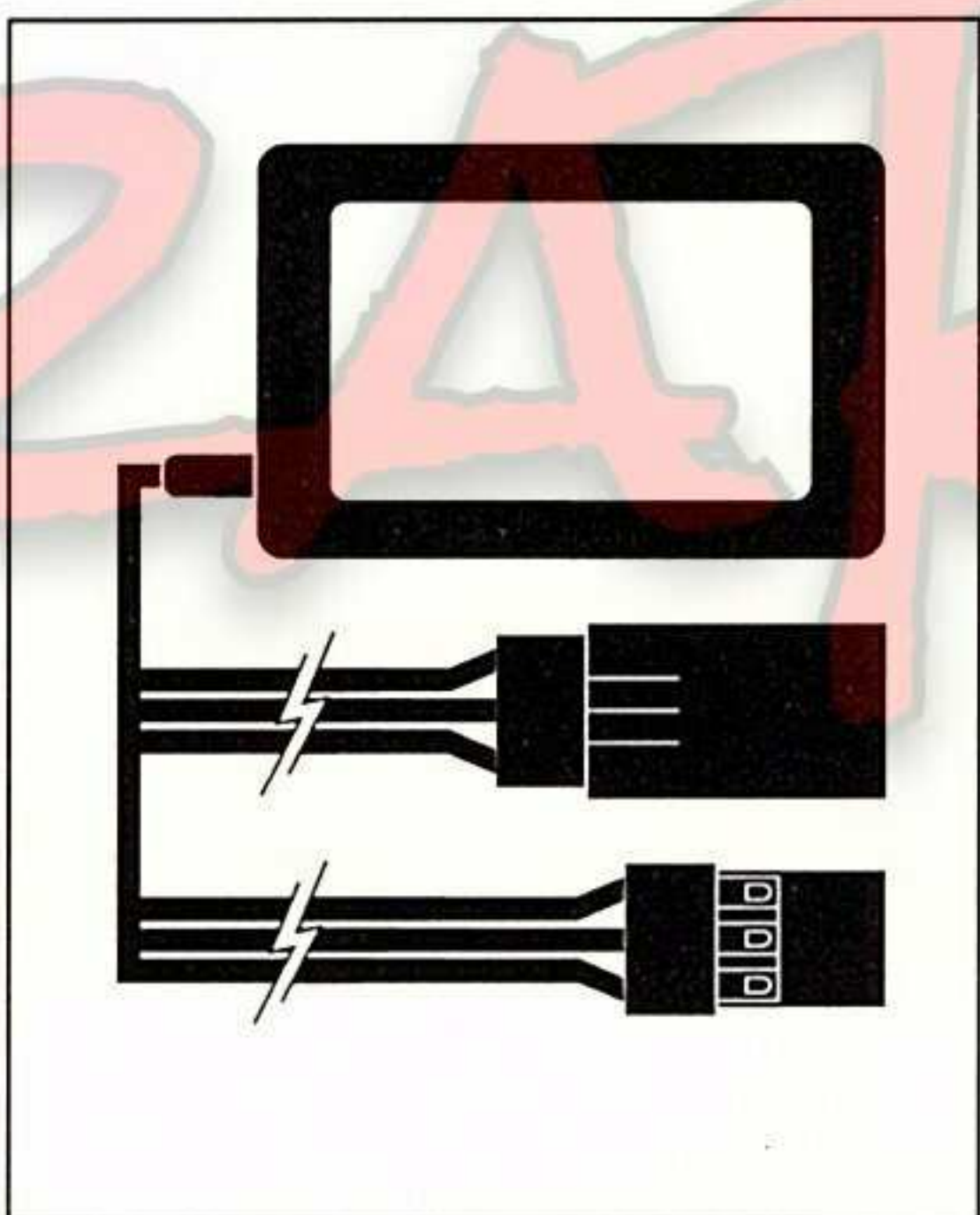
Hand strap



Charge receptacle



JR Tx case standard/ deluxe



Reverse amp (fits all servos)



Tx & Rx battery expanded scale voltmeter



Manual

JR and Hobby Dynamics are not responsible for inadvertent errors. Specifications are subject to change without notice.

LED Light Emitting Diode available in a variety of colors, usually used as indicator light on radios.

LCD Liquid Crystal Display usually used in applications where text is required. The screens on several of JR's computer radios, as well as many hand-held calculators, are LCD type displays.

mAH Milliampere hour.

MHz Megahertz; a unit of measurement of frequency. 1 MHz equals one million cycles per second. Also see 'kHz.'

Mode I/II/III/IV This refers to the stick configuration on a radio system. Mode I = throttle/aileron controls on right stick, elevator/rudder controls on left stick. Mode II = elevator/aileron controls on right stick, throttle/rudder controls on left stick. Mode III = elevator/aileron controls on left stick, throttle/rudder controls on right stick. Mode IV = throttle/aileron controls on left stick, elevator/rudder controls on right stick.

NiCd Nickel-cadmium battery, a high power rechargeable battery.

Pitch Curve This is a transmitter function which allows the user to adjust the speed/rate of change of pitch control on a helicopter. This is helpful in acquiring the desired rotor speed and performance at different throttle settings.

Programmable Mix Electronical coupling of one channel to another. Thus one control input will yield output from two different output sources. (servos)

Proportional Referring to proportional control systems wherein the movement of the control surface is proportional to the amount of movement of the control stick on the transmitter. Opposite of 'pulse control.'

Receiver That portion of a proportional control system, contained in the aircraft, which receives the transmitted signal, then decodes the signal and passes it on to the appropriate electromechanical servo.

RF Pack Package which includes a transmitter module, receiver, and frequency flags.

Rx Abbreviation used to identify a Receiver.

Sub Trim A radio function which allows very precise electronic centering of servos.

Switch Harness A device which activates (switches on or off) the flight pack in the aircraft.

Throttle Alt This function makes the throttle trim only active at low throttle, thus not effecting the trim at high throttle.

Throttle Curve Same as pitch curve, except adjustment is made to the throttle settings.

Throttle Hold This is a transmitter function which allows the user to preset an exact amount of throttle for a particular pitch curve. This is particularly useful when the pilot is performing autorotation landings.

Trim Offset A radio function not unlike sub trim except its input is made using the actual trim levers and then saved in memory.

Tx Abbreviation used to identify a transmitter.

VTR Variable Trace Rate. This radio function is similar to exponential although it plots two separate linear graphs to reach the same overall high rate setting. The point at which the graph switches over from low rate to high rate is usually adjustable from 50 - 90%.

"Y" Harness A device used to derive two outputs from one input. This allows connecting two servos to one port on the receiver.



ULTIMATE R/C.COM

Distributed exclusively by Hobby Dynamics Distributors, Champaign, IL 61821 • 1.217.355.0022

JR REMOTE CONTROL
RADIO CONTROL SYSTEMS