Orbit

RADIO CONTROL SYSTEMS

7-14 & 4-8 Digital Proportional

Precision control and complete reliability—that helped win First, Sixth and the Team Title for the U.S.A. at the 1965 World R/C Championships—are the hallmark of the new ORBIT Digital Proportional systems. The Orbit 7-14, 7 channels and 14 commands, offers all 4 primary controls with variable trim . . . plus three supplementary channels. The single-stick 4-8, 4 channels and 8 commands has aileron, elevator and rudder with variable trim plus throttle control. A new stick gimbal design is precision machined for positive control.

ORBIT Digital Systems utilizes an "on-off" transmission system for precise, incremental servo response. "Off-time" is held to the minimum for interference-free operation. Fast response-time gives a positive sense of control.

High-torque Orbit PS-2D servos with linear and/or disc output are easy to install and provide power for high performance aerobatic air loads. Full power servo output on minimum error signals assures positive control. Tight servo neutral means trim is constant for precision control.

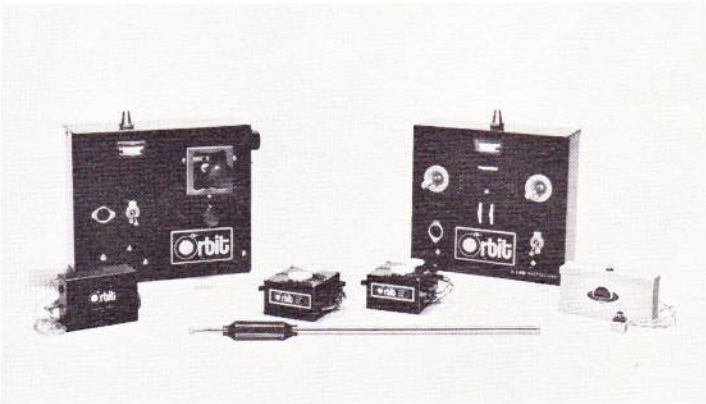
The super-het receiver is highly sensitive and selective for better than out-of-sight range and adjacent channel rejection. Its small package-size affords easy installation. A single, 4-cell power-pack serves both receiver and servos, and the four-wire system provides reliability through simplicity.

KEY SPECIFICATIONS

Power	750 mw input
Frequency	26.995, 27.045, 27.095, 21.145, 27.195, 27.255 mc (6 meter available)
Operating Temperature	Stable 0° to 160°F. (—18° to 66°C.)
7-14 Two-Stick Control	Mode 1: Elevator & Rudder—left stick Throttle & Ailerons—right stick Mode 2: Elevator & Ailerons—right stick Throttle & Rudder—left stick
4-8 Single-Stick Control	Elevator, Rudder, Aileron with trim; throttle
Antenna	Center loaded
Airborne Weight	25 oz. receiver, power-pack 4 servos. Each additional servo 3 oz.

Complete Orbit Digital System: Transmitter, receiver, 4 PS-2D servos airborne power-pack, and charger, transmitter power-pack and charger, cables and connectors, switch installation and operation manual 7-14 **$550.00** 4-8 **$450.00**

4-8 AND 7-14 DIGITAL PROPORTIONAL



Full House Proportional

The Orbit analog proportional radio control system has been proven by thousands of hours of trouble-free operation in both sport and contest flying; its contest-winning record is well known.

Control of elevators, rudder, ailerons, trim and throttle is directly proportional to amplitude of command. Move the stick and the control surface moves in the same manner as on a full-scale aircraft.

The transmitter is in continuous communication with the receiver to insure complete control and reliability. Two independent alternating tones carrying control intelligence and a continuous carrier signal are transmitted to the receiver. This results in interference-free operation even under today's crowded frequency conditions. Receiver sensitivity insures better than out-of-sight range, and selectivity permits adjacent channel operation.

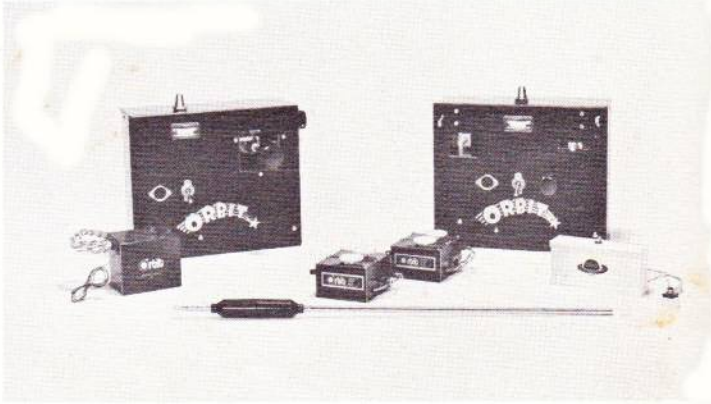
Transistorized circuitry, rugged two-deck construction and special parts for critical points assure reliability under vibration and shock. High-torque PS-2A servos are supplied for throttle, aileron and elevator control functions; and Orbit PS-1A servo, compatible with rudder circuitry, is used for the rudder function.

KEY SPECIFICATIONS

Power	750mw input
Frequency	26.995, 27.045, 27.095, 27.145, 27.195 and 27.555 mc
Operating Temperature	Stable 0° to 150°F. (—18° to 66°C.)
Single or Two-Stick Control Configuration	
Control Commands	Elevator, Aileron, Rudder, Throttle, Elevator Trim, Aileron Trim
Airborne Weight	27 oz.

Complete Orbit Proportional R/C System includes: Transmitter, 10-volt 1.25 amp/hr nickel-cadmium rechargeable power-pack, Receiver, 5-volt 1.25 amp/hr nickel-cadmium rechargeable airborne power-pack, 3 PS-2A servos, 1 PS-1A servo, all cables and connectors, receiver power-pack charger, transmitter power-pack charger **$595.00**

FULL HOUSE PROPORTIONAL



3+1 Proportional

The Orbit 3+1 analog proportional offers beginners, Sunday flyers and Goodyear Pylon racers a quality RC system at a medium price. Ingenious, simplified circuitry—developed from the "Full House" system described below—provides rudder, elevator and throttle control and rudder and elevator trim. Gimballed single-stick or two-stick models provide simultaneous control of flight surfaces. Throttle and trim are located on the right of the transmitter case.

Contest flyers can add the +1 coupled aileron and rudder (CAR) option easily and inexpensively with a fourth servo and uncomplicated circuit.

Circuitry is transistorized; alternating tone, continuous carrier transmission assures interference-free operation. The center-loaded, quarter-wave antenna takes maximum advantage of transmitter output; low side-band content insures interference-free adjacent channel operation. The highly sensitive Orbit super-heterodyne receiver furnishes better than out-of-sight range.

High-torque, infinite resolution PS-2A servos operate in direct proportion to control commands. Servos have built-in rotary and/or linear output to permit the use of any system of control linkage.

KEY SPECIFICATIONS

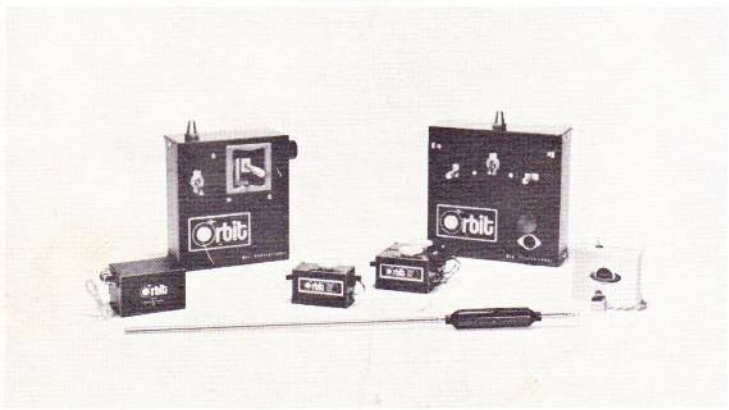
Power	630 to 680 mw input
Frequency	26.995, 27.045, 27.095, 27.145, 27.195 and 27.255 mc
Operating Temperature	Stable 0° to 150°F. (18° to 66°C.)
Single-Stick or Two-Stick Control	
Control Commands	Elevator Rudder, Throttle, Elevator Trim, Rudder Trim + optional CAR Function
Airborne Weight	19 oz. receiver, power-pack, 3 servos

Complete Orbit 3+1 Proportional R/C System includes: Receiver, receiver 5-volts 600 MAH nickel-cadmium rechargeable power-pack and charger, transmitter, 3 PS-2A servos, all cables and connectors, switch installation and operation manual..... **$350.00**

Optional 600 MAH 10.5V rechargeable nickel-cadmium transmitter power-pack and recharger..... **$35.00**

The 3+1 Installation and Operation Manual; including schematics, and Tips for Rigging and Flying Proportional Controlled Model Aircraft—by Dick Riggs is available direct from Orbit..... **$1.00**

3+1 PROPORTIONAL



Reed Radio Systems

Orbit reed multi-channel radio systems have been in production since 1957. These are the highly reliable "black Boxes" that begin the popularization of RC flying around the world by introducing a commercial system that provided simultaneous control of functions.

Now, 1966, Orbit reed systems utilizes state-of-the-art transistorized circuitry for drift-free, out-of-sight range. The transmitter may be driven by a 9-volt dry-cell battery or a nickel-cadmium power supply. A quarter-wave center loaded antenna is used to make use of a maximum transmitter output. The highly sensitive superheterodyne receiver uses a nickel-cadmium power supply. The system provides an output to operate with any standard relayless transistorized servo.

Four, six, eight and ten channel reed receivers and transmitters are factory convertible to twelve channels.

KEY SPECIFICATIONS

Power	750 mw input
Frequency	26.995, 27.045, 27.095, 27.145, 27.195, 27.255 mc
Operating Temperature	Stable 0° to 140°F. (—18° to 60°C.)
Simultaneous Control Commands	4, 6, 8, 10 or 12 Channel Models output compatible with relayless transistorized servos
Airborne Weight	Receiver: 5 oz. Battery: 6 oz.

	Transmitter	Receiver
4-Channel	$ 70	$60
6-Channel	80	65
8-Channel	90	75
10-Channel	100	80
12-Channel	110	90

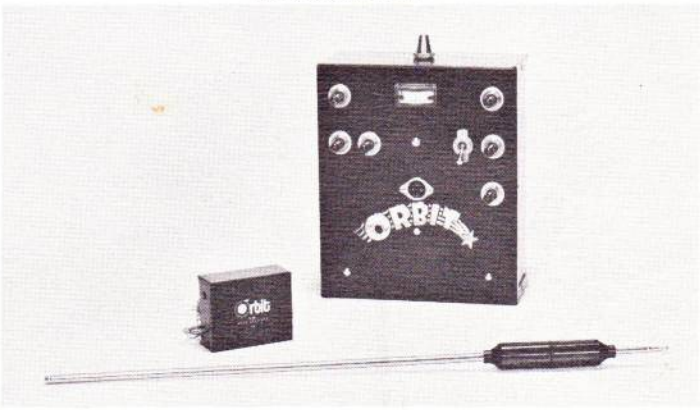
Orbit 10 volt, T-81250 nickel cadmium battery & charger... **$40.00**

Orbit 6 volt, R5-600 nickel cadmium battery & charger.... **$25.00**

Optional 6 channel relay deck for use with 4, 6, 8, 10 & 12 channel receivers supplied with SPDT 50 ohm Dean relays..... **$60.00**

Size: 1½ x 2 x 3 Wt.: 4 oz.

12-CHANNEL REED



Servos

High-torque servos, delivering twice the power of previous models, are now standard equipment on all Orbit proportional R/C systems. PS-2A analog servos are used for the entire Orbit 3+1 system and the "Full House" proportional throttle, aileron and elevator control functions; the rudder control servo continues to be the PS-1A because of system circuitry. The new servos are compatible with previous transmitters and receivers. All Orbit 7-14 Digital Proportional systems use PS-2D digital servos as standard equipment.

The new units utilize precision servomotors, silver-alloy brushes and hard-surfaced carbon-ceramic potentiometers. These features, combined with new circuitry, deliver full-power servo output on minimum error signals for positive control.

Built-in rotary and/or linear output permits easy use of any system of control linkage. The all Nylon case provides vibration-dampening grommet mounting, positioned for maximum crash protection and ease of installation. Net weight of each servo is 3 oz. Orbit PS-2A and PS-2D servos are priced at $40.00 each.

Connectors

Orbit polarized RC connectors cannot be reversed. Plug will fit socket only in correct position. These units are made to meet Orbit Electronics' exacting standards. Color-coded spaghetti is supplied cut-to-length.

Proportional Servo Connector, 4-pin in-line plug and socket with color-coded spaghetti **$1.50**

Reed Servo Connector, 6-pin in-line plug and socket with color-coded spaghetti **$2.00**

Package of 5 as above **$6.95**

10 channel reed receiver interconnected plug and socket. This IC connector saves multiple power lines to servos. Four power lines from pack are made with interconnected block; then four connections each are made to five servos. IC plug and socket with color coded spaghetti **$9.95**

Proportional interconnected plug and socket. Utilizes three power input wires from receiver for interconnection to four servos. PIC plugs and socket with color-coded spaghetti **$7.95**

Cut-to-length, assorted color-coded spaghetti package **$1.00**

Power Supplies and Chargers

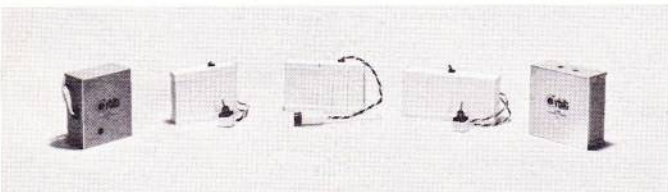
All Orbit power supplies are domestically made nickel-cadmium batteries. Regulated chargers protect cells by automatically adjusting charging rate; they cannot overcharge.

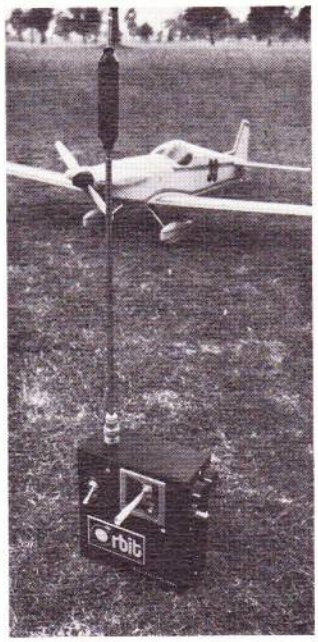
Transmitter Power Supplies:

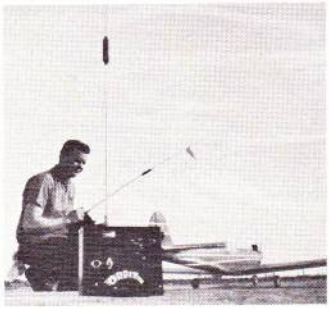
T-8600	8 - 600 ma/hr cells	$30.00
T-81250	8 - 1250 ma/hr cells	35.00
Charger		5.00

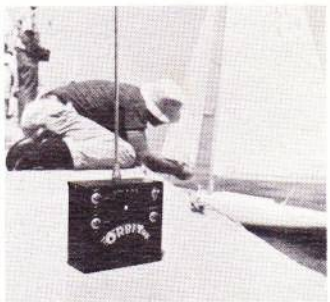
Receiver Power Supplies:

R-4600S	4 - 600 ma/hr cells (includes switch)	$25.00
R-41250S	4 - 1250 ma/hr cells (includes switch)	35.00
R-5600	5 - 600 ma/hr cells	20.00
Charger		5.00









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