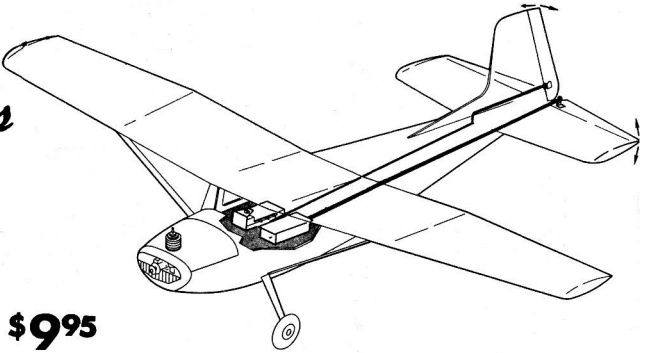
SPECIFICATIONS

Weight 2.1 Oz. Travel 5/8"
Size 1 1/4 X 1 1/2 X 2 1/2
Voltage 1.2 to 4.5
Current used at 3 Volts
- No Load 80 MA
- One Pound Load 160 MA
- Stall 350 MA

Mazimum Power 4 1/2 Pounds
Broad Neutral if Desired
Electronic Brake NO OVER-RUN
Response Time .42 Second
Precision Long Life Instrument Timer Type Gears

COBB HOBBY's Micro' S-N 3 Pos.



$9.95

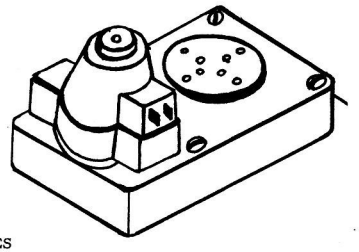
- Low Drain
- High Power
- Top Quality
- Moderate Cost

Environment Tested for 1000 Flight Life... on our New "FLIGHT SIMULATOR" ... Duplicating Flight Load and Vibration Conditions.

The MICRO Motor is by far the most efficient in use today--Highest torque for current used... Custom built by Worlds Largest Motor Manufacturer for our EXCLUSIVE use. Uses Oilite bearings and Long Life Brushes.

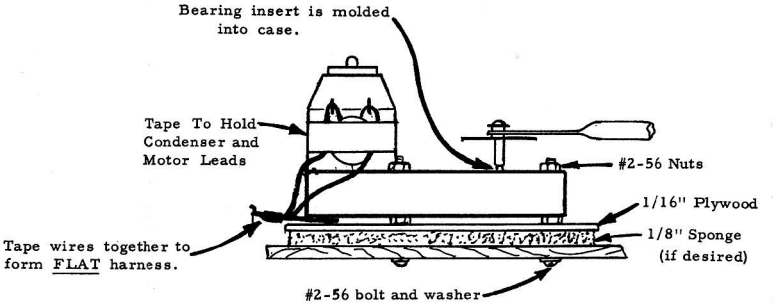
Straight wiper fingers -- Will Not Loose Tension

Precision long life instrument timer gears - Tested 6 million revolutions under load to assure long life.



HOW IT WORKS

A unique Motor/switch action rotates the output rotor, a part of a turn each time the unit is signaled by a relay or switch. COBB HOBBY's patented electronic brake stops rotation at exactly the right spot - no over-runs - regardless of voltage or load variations. The electronic brake is exclusive with COBB HOBBY and is a significant "first" in R/C work. It was developed by COBB HOBBY's servo designers who are world leaders in servo and actuator design.



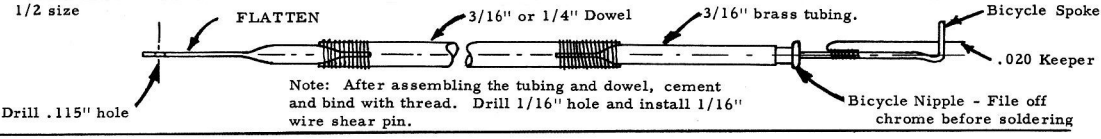
USES

S-N (Self Neutralizing)	3 Position
Rudder action for planes and boats	Throttle Control
Throttle Control	Switching for Electric Drive Motors
Elevator Control	Switching Flaps, Etc.

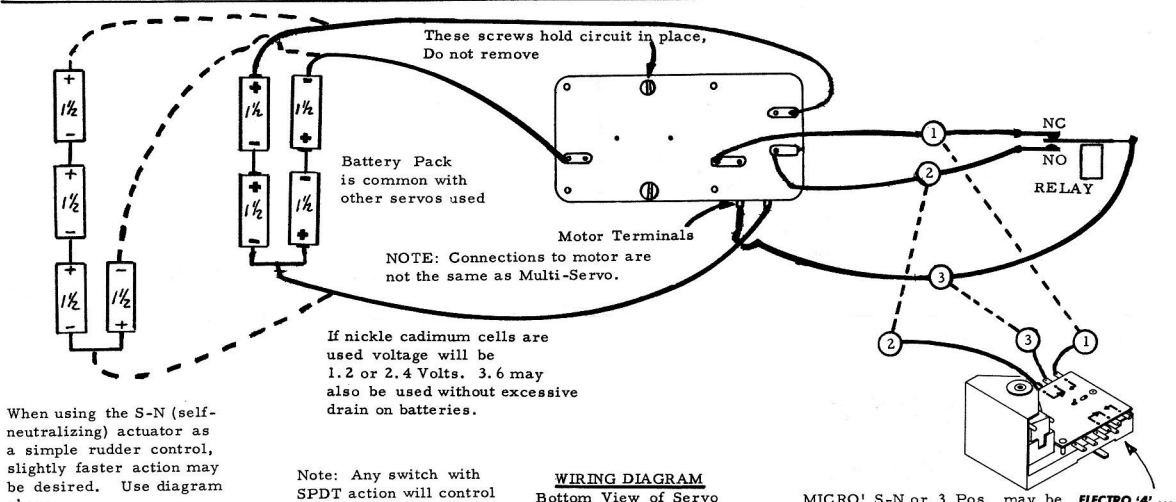
COBB HOBBY MANUFACTURING CO. Powder Springs, Ga.

Phone: Marietta, Ga. - 7-3405

PUSH ROD 1/2 size



Note: After assembling the tubing and dowel, cement and bind with thread. Drill 1/16" hole and install 1/16" wire shear pin.



When using the S-N (self-neutralizing) actuator as a simple rudder control, slightly faster action may be desired. Use diagram above.

If nickle cadimum cells are used voltage will be 1.2 or 2.4 Volts. 3.6 may also be used without excessive drain on batteries.

Note: Any switch with SPDT action will control the MICRO' S-N or 3 Pos.

WIRING DIAGRAM
Bottom View of Servo

MICRO' S-N or 3 Pos. may be connected to Electro as shown. **ELECTRO '4' ...**

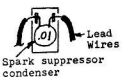
IMPORTANT BOATING FEATURE
Gears and switches are enclosed in protective housing.

A small amount of oil may be applied to all bearings and gears. Oil will not affect the operation of the switch.

NOTE Wires should be arranged in a FLAT strip and taped together.

DO NOT cross wires over each other under the servo - This will bow the circuit and cause binding of the gear train.

SOLDERING INSTRUCTIONS



The plastic case of the Motor can be damaged unless care is used in attaching lead wires.

PROCEED AS FOLLOWS ---- See Sketch

1- Clean and "Tin" (apply solder) to the condenser leads (not included) BEFORE attaching it to the motor.

2- Thread the condenser leads thru the motor terminals.

3- Use 50 Watt iron. Apply rosin solder to the iron.

4- Apply this melted solder to the motor terminal. Hold iron in place only long enough for the solder to "Flow" on the joint.

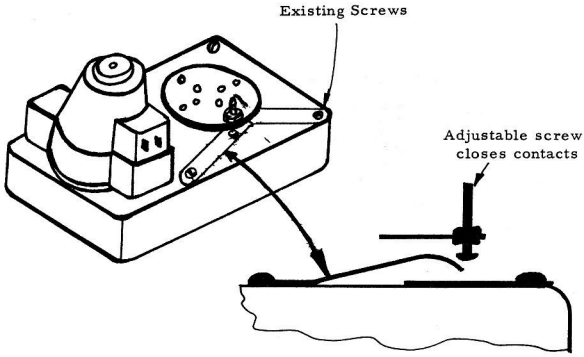
5- Apply damp (not wet) cloth to absorb heat.

6- Clip condenser leads to ½" and connect leads to these "tails", DO NOT ATTEMPT TO REMOVE THE CONDENSER OR RESOLDER THE MOTOR TERMINALS.

Always "Tie Down" all leads from the actuator to prevent breaking due to vibration.

BONDING RELAY ARMATURE

Most relays have a very poor connection from the armature (moving part) to the frame. For reliable results this must be improved by making a direct connection. On receivers having 3 mills or more current change, the tension spring may be soldered at both ends--- very carefully. Other receivers will have to have a very flexible stranded wire connection.



SWITCHER

Any MICRO' may be converted into a reliable switch by adding .010 hard brass or bronze switches to the case as shown. Several sets of contacts may be used. They can be double if desired to switch boat drive motors. This switch can actuate flaps, spoilers, horns, lites, etc.