

OS Minitron Escapements

Introduction

The miniature OS escapements K-II, S-2, S-4 and SS-2 are carefully designed escapements manufactured to precise high standards of workmanship. Perhaps you have wondered why there are not more ultra-small sub-miniature escapements on the market. One reason for their lack of abundance is that ultra-small escapements are much more delicate and the resulting forces that the escapement can exert on the control surfaces are also much smaller. We recommend these escapements specifically for small airplanes; namely 1/2A and smaller. It is true that the motor control escapement can be used for any size airplane, but it must be remembered that the linkage should be extremely free if you are going to use them. These escapements operate on one loop of 1/8" flat rubber. Using more rubber than this on the escapement will definitely cause the escapement to jam, bind, or stick. The 1/8" rubber will produce enough torque to move a small control surface as the surface hinges and the link from the escapement to the surface work freely. We might point out that the tiny bearing brackets that support the yoke are held in place by one screw. Be careful not to push or rotate these bearing brackets so as to bind up the yoke of the escapement. We find that most of the binding in the escapement mechanism is caused by accidental displacements of these bearing brackets. We also recommend that you make a good flat sturdy mount for your escapement mounting board. This should be flat. If you try to bolt the escapement down to a surface which is not flat a warp will be induced into the board which will, in turn, bind the yoke. If you have a large airplane we recommend that you purchase a large escapement and do not try to use this one. Remember, use only one loop of 1/8" rubber on this escapement and limit the winds to one good full row of knots. Adjust your fuel run to be compatible with the amount of signals such a winding will produce.

THE FUNCTION OF THE RESISTOR

Notice the small resistor mounted on the escapement frame. This resistor is so arranged in the escapement brush circuit so that it will reduce the current flow through the escapement when the escapement gets to a control position. It must be remembered that it takes more current to pull the armature in than it does to hold the armature of the escapement down as the armature gets down to the solenoid. In the neutral position when the armature is open the brush switch cuts the resistor out of the circuit so that you get full amperage through the escapement coil to pull in the armature, however, when you get to a control position with the armature down the resistor is in the circuit so as to save your battery's life.

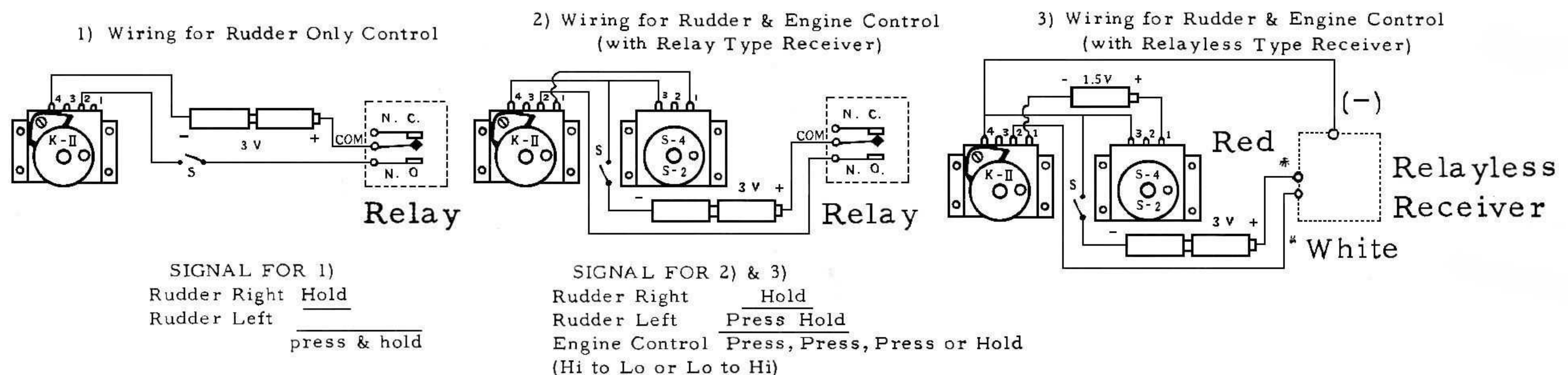
SPECIFICATIONS

Escapement Weight	.68 oz.
Resistance of Escapement Coil	9 ohms
Resistance of series resistor	10 ohms

RUBBER WINDING - Figure about 250 turns per 16" length of rubber motor (distance between hooks).

BATTERY REQUIREMENTS - 2 pen cells for rudder control plus an additional pen cell for motor control. (See Diagrams).

K-2 Compound Escapement, S-2 & S-4 Motor Control Escapement



KII - Compound 1/2 A & smaller	-----	\$8.95
S-4 - 3 position motor control	-----	\$5.95
S-2 - 2 position motor control	-----	\$5.95
SS-2 - SN operation - rudder control	-----	\$5.95