

# S-4a REVISION

Number 1-2 Date 1 - 22 - 69



## S-4a CONTROLAIRE SERVO

REVISION 1 & 2

January 28, 1969.

Credit for this revision goes to our Service Expert in Memphis, Charlie Curtis, and also K. K. McClure who is going to be flying on the World Engines Contest Team

This revision will give you a much better servo. Follow this revision - not the original instructions. This is vitally important if you anticipate flying on 225 mah batteries.

At the last minute we decided at no extra cost to the customer to include with the servo two 1.3 microhenry chokes. This reduces the effect of motor noise in the system. If the motors are producing noise it is noticeable under conditions of weak transmitter power such as when the model is flying out at a good range and it is noticed by servo chatter. These just increase the operating range of the system. Actually, the choke is used to reduce the antenna effect of the wires that come from the motor.

### PARTS TO BE OMITTED

.22mfd tantalum capacitor holes 23 and 48.

470 ohm resistor holes 24 and 36.

470 ohm resistor holes 8 and 32.

### PARTS TO BE CHANGED

The instructions show a .22mfd electrolytic capacitor (same physical size). Keep the polarity the same as is shown on the original instruction Fig. 1.

22k resistor holes 34 and 36. This is to be replaced with a 47 ohm resistor. Solder one 47 ohm resistor in hole 34. Do not solder the other end yet.

### PARTS TO BE ADDED

Stand up a 22k resistor over hole 46 and solder one end at hole 46. Now, connect the resistors standing over holes 34 and 46 together at the top as shown in the photo that will accompany this revision.

Photo No. 4 shows the wires coming from the plug and going to the board and from the board to the motor. The white wire goes through a strain relief hole, No. 3 and goes up to the top of the bridged resistors.

Another white wire goes to the plug from these bridged resistors. Photo No. 5 shows the heat shrink tubing slipped over the white and green wire and the white and green wires soldered to the chokes. Photo No. 6 shows a PC board tucked in under the chokes and being assembled into the cavity in the servo case. Look at the bottom casting of your servo case. If there is a small post extending up near the center of this servo case, clip it out flush with the bottom. It is not needed to hold the motor in.

### OTHER MISTAKES ON THE ORIGINAL INSTRUCTION

33k - 1/8 watt resistor should be holes 22, 54 (not 52 54).

47k - 1/8 watt resistor (quantity 1) short on parts list.



