



DIGITRIO SERVO MODIFICATIONS

The addition of a single wire eliminates the most troublesome point in any servo—the sliding contact between the contact finger and wiper shim.

By Ray Pizar.

Here is a reliable modification for the Digitrio servo by Ray Pizar of Phoenix, Arizona. The minor effort required will reap huge benefits. I recommend this modification be performed on all Digitrio servos.

WHEN I first met Ed Thompson two years ago, he impressed me as being a person not easily satisfied; fortunately for us, he has not changed. His constant experimentation and testing with his Digitrio and the coming four channel version have resulted in probably the most sought after characteristic in R/C systems — **reliability**.

It is my purpose here to present a modification which will enhance this already superbly reliable system.

The addition of one wire in each servo results in the elimination of the most troublesome point in any servo—the sliding contact between the moving contact finger on the output arm and the wiper shim on the PC board.

Most Digitrio flyers will want to update their present servos since this sim-

ple modification can be added to existing Digitrio servos as easily as it can to new servos being built from kits.

Proceed with the modification as follows:

1. Drill a #60 hole down through—and at 90° to—the output arm at a point 1/8" to the left of the right edge of the raised portion of the output arm. The wiper fingers point toward the right edge.

2. File and deburr a 1/16" notch 1/8" from the upper right edge of the "C" frame.

3. Cut a 2 3/4" piece of stranded #24 wire and strip 1/8" insulation from one end and 1/16" from the other. Tin both ends. I used some super flexible wire which I bought from Kraft.

4. Clean and tin the middle wiper finger on the output arm (it isn't used anyhow) and solder the 1/8" stripped end of the wire to it. Work quickly and avoid excessive heat here.

5. Feed the wire up through the #60 hole (a dab of R.T.V. may be applied to the wire where it enters the arm to re-

lieve strain) and bend the middle finger so it is parallel to the output arm and flat. Don't forget to readjust the feedback pot wiper finger(s).

6. Solder the remaining end of the wire to the exposed lead of the 68K ohm resistor (R-12) located on the auxiliary board and the modification is complete. (See original servo overlay.)

Carefully route the new wire into the 1/16" notch in the "C" frame while re-assembling the servo per Ed's article.

This modification does not change any wiring of the original servo. The servo must be built as per the original article. This additional wire is a form of insurance in case of wiper failure.

By the way, in case you're interested—there are 160 solder connections in a Digitrio servo, 300 in a four channel transmitter, 139 in a 4 channel decoder, 148 in the receiver, 18 in the harness, and 16 in the receiver pack, for a grand total of 1261 solder connections in a Digitrio-4.

File **that** under miscellaneous information.

