CE1
SN 28604N

9/21/71
540-E
PARTS LAYOUT
1974

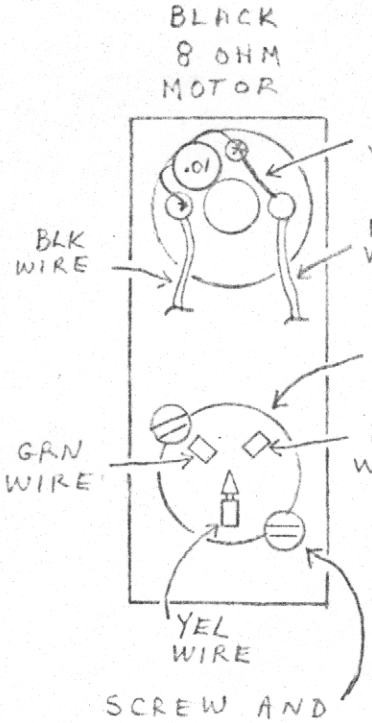
CANNON ELECTRONICS
BASIC SERVO ASSEMBLY INSTRUCTIONS

The following instructions apply to all servos. Follow applicable instructions if one or two P.C. boards are used.

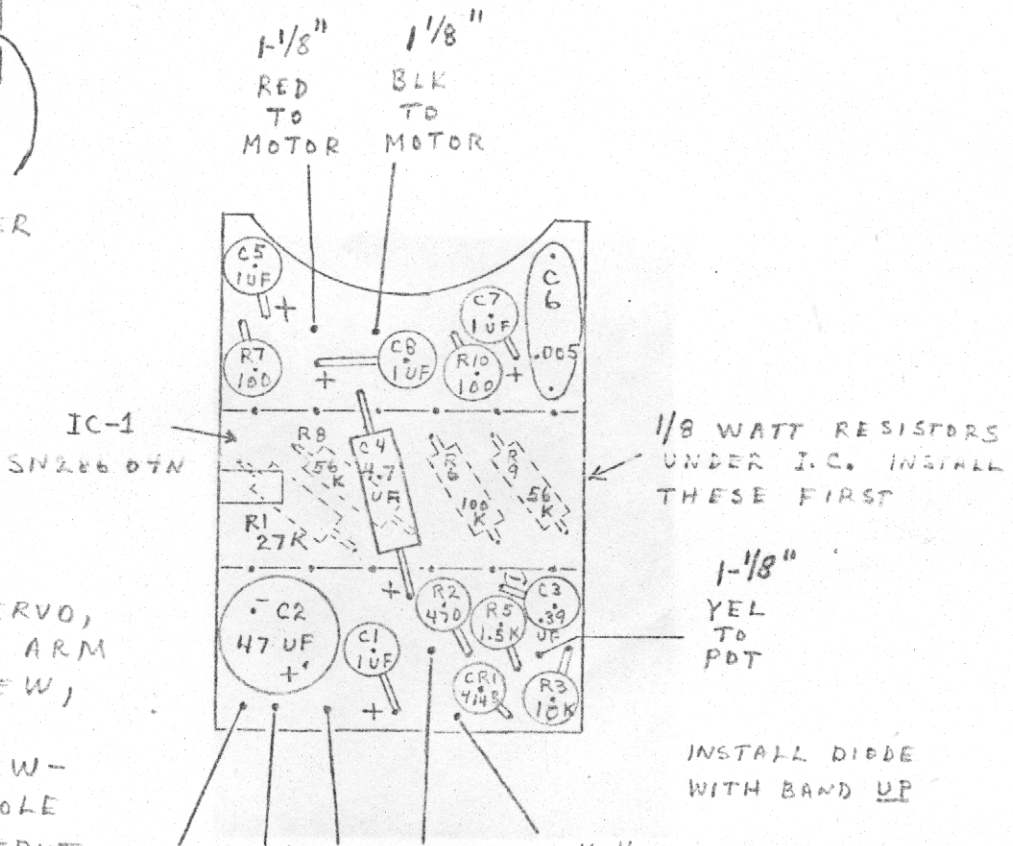
1. Use a pencil type low wattage soldering iron, 30 to 47-1/2 watts (maximum).
2. To assemble P.C. board (s) first position board, metal side down, so that hole arrangement corresponds with assembly illustration. Locate desired mounting holes, insert wire leads of part through holes until part is positioned as close to board as possible. Bend wire leads over solidly against solder lands on bottom of board to hold part firmly in position. Clip off excess lead length, leaving at least 1/16" to hold part in place. It is extremely important on this servo that leads be as flat as possible against lands, or cover may not fit. Also, leads must not extend beyond edge of land to which it connects.
3. Assemble and solder parts on board (s) as shown. Use as little solder as possible to reduce bulk on back side of board.
4. Cut short wires to lengths shown. Remove 3/32" insulation from each wire end, except remove 1/2" insulation from end of wire which connects to motor ground.
5. Solder wires to Board No. 1, then solder other end of wires (except motor) to Board No. 2. (On servos where two boards are used).
6. Assemble servo plug and cable. Cut each wire end to proper length to attach to P.C. board (s) (minimum 1/2" for any wire). Solder wires to P.C. board (s).
7. On MODEL 540 servos, cut the prefabricated cable assembly so that wires are 10" long.
8. On some servos, it will be necessary to assemble pot wiper to wiper plate as shown.
9. On C-E1 and C-E3 servos, install wiper assembly in pot housing so that contacts face end of servo. Press firmly on plastic pot wiper center plate while holding output shaft until pot wiper assembly is firmly seated.
10. If necessary, position motor and feedback pot as shown on drawing. Do not tighten pot screws.
11. Clean solder flux from boards with lacquer thinner. Inspect both sides of board (s) very carefully with an eye loupe to make certain all parts are correctly installed, as close to board (s) as possible, that parts will not touch when boards are brought together, and that no solder shorts exist on back sides of boards.
12. Using a fine, flat file or fine sandpaper block, very carefully remove excess material (solder, etc.) that project from soldered side of board. It is important that outsides of P.C. board (s) be as flat as possible to permit installation of servo cover. Clean and recheck to be sure all joints are well soldered. Touch up where necessary.
13. Position boards facing each other with solder sides out. Connect green, yellow and brown wires to correct tabs on feedback pot.
14. Solder white and black leads to motor. Be sure long bare end of ground wire is soldered to both tabs as shown.
15. Plug servo into receiver and check operation. Center servo to your Tx as explained on drawing.
16. Dress wires for best fit and fit each board vertically, one into each side of servo. Be sure parts do not touch, then install cover with screws. Grommet should fit into cover slot.

CANNON ELECTRONICS
540-E SERVO

6/12/74



TO REVERSE SERVO DIRECTION, REVERSE MOTOR WIRES AND GRN & BLK WIRES TO POT. RECENTER SERVO



TO CENTER SERVO, REMOVE OUTPUT ARM RETAINING SCREW, INSERT SMALL JEWELERS SCREW-DRIVER INTO HOLE IN TOP OF OUTPUT SHAFT AND ROTATE SCREWDRIVER UNTIL CORRECT CENTER IS OBTAINED.

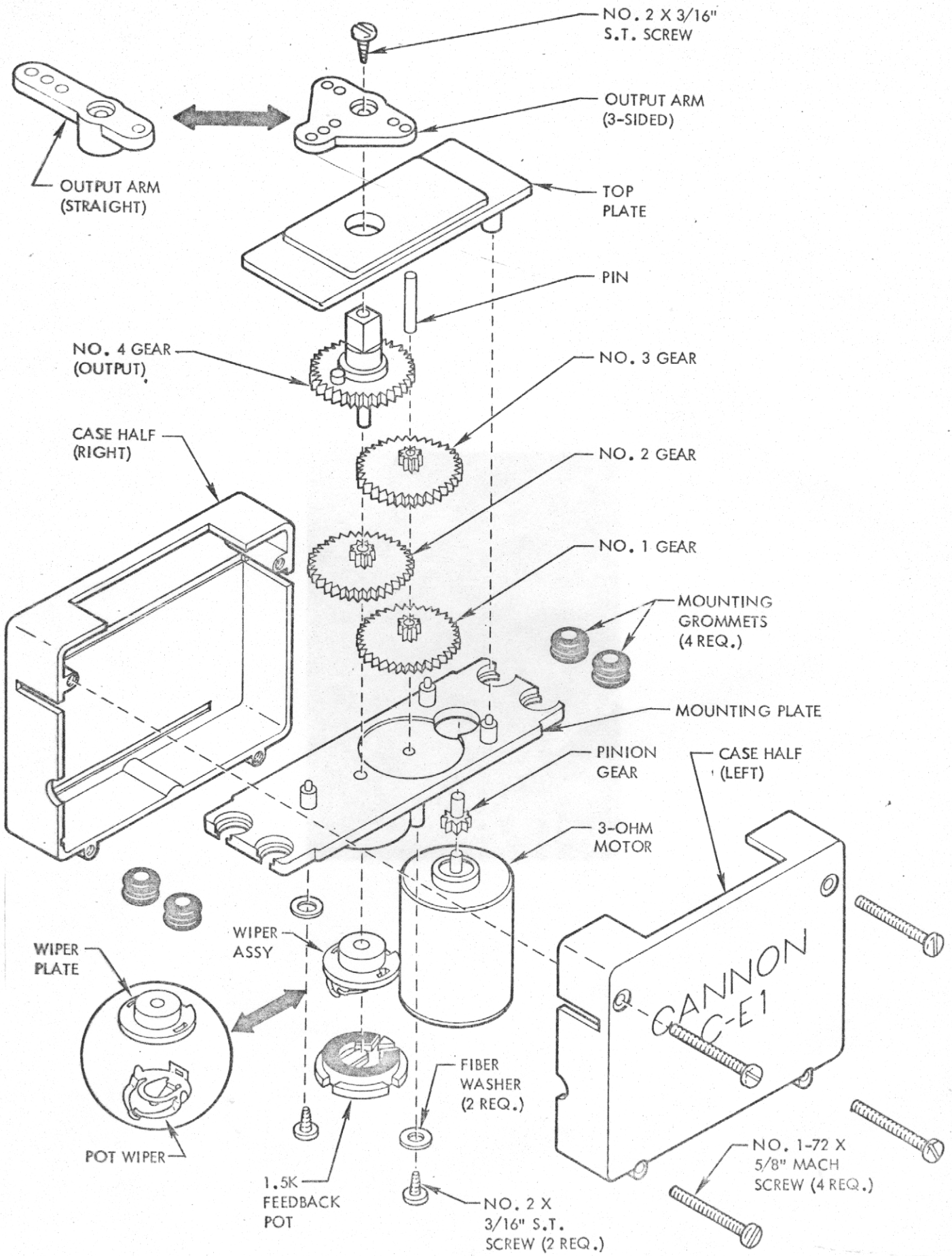
STD: 8" CABLE BEFORE TWIST
T.B.: 7" CABLE BEFORE TWIST

SEE CABLE DRAWING FOR DETAILS OF SERVO PLUG AND CABLE ASSEMBLY.

REDUCE C6 TO DECREASE SERVO DEAD BAND

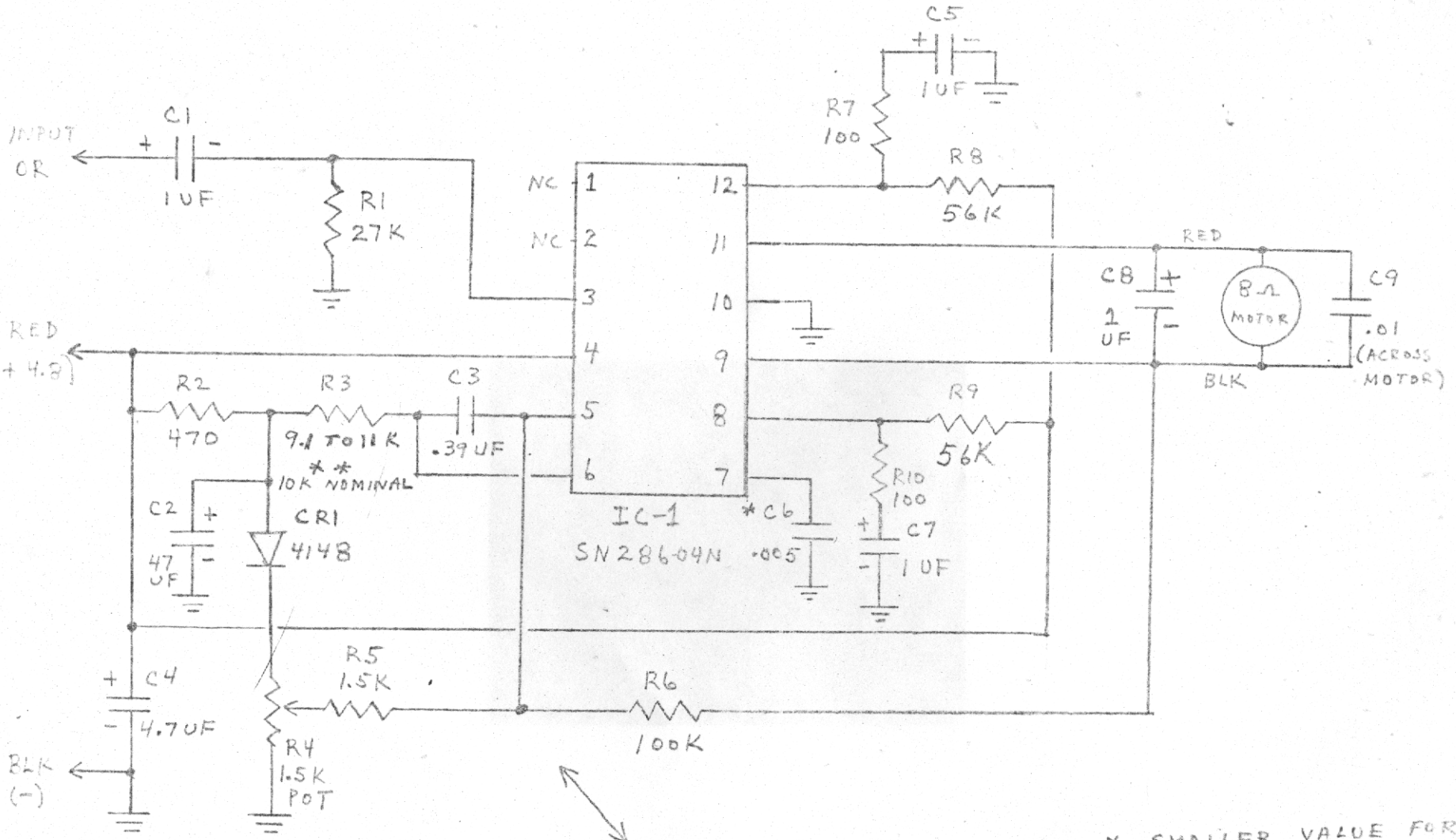
INCREASE R3 TO DECREASE THROW

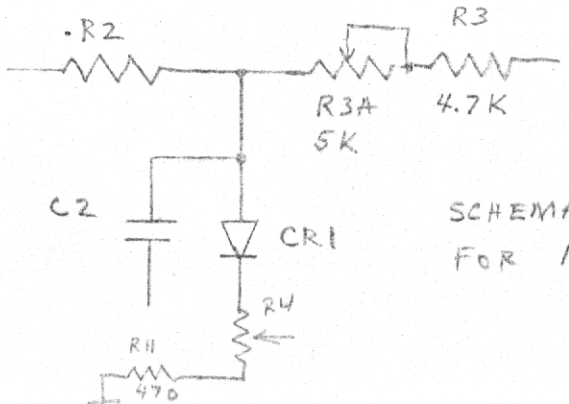
CANNON ELECTRONICS
C-E1 SERVO



CANNON ELECTRONICS
1974
UNIVERSAL SERVO

6/18/74





SCHEMATIC VARIATION
FOR 180° SERVO

* SMALLER VALUE FOR MINIMUM DEAD BAND

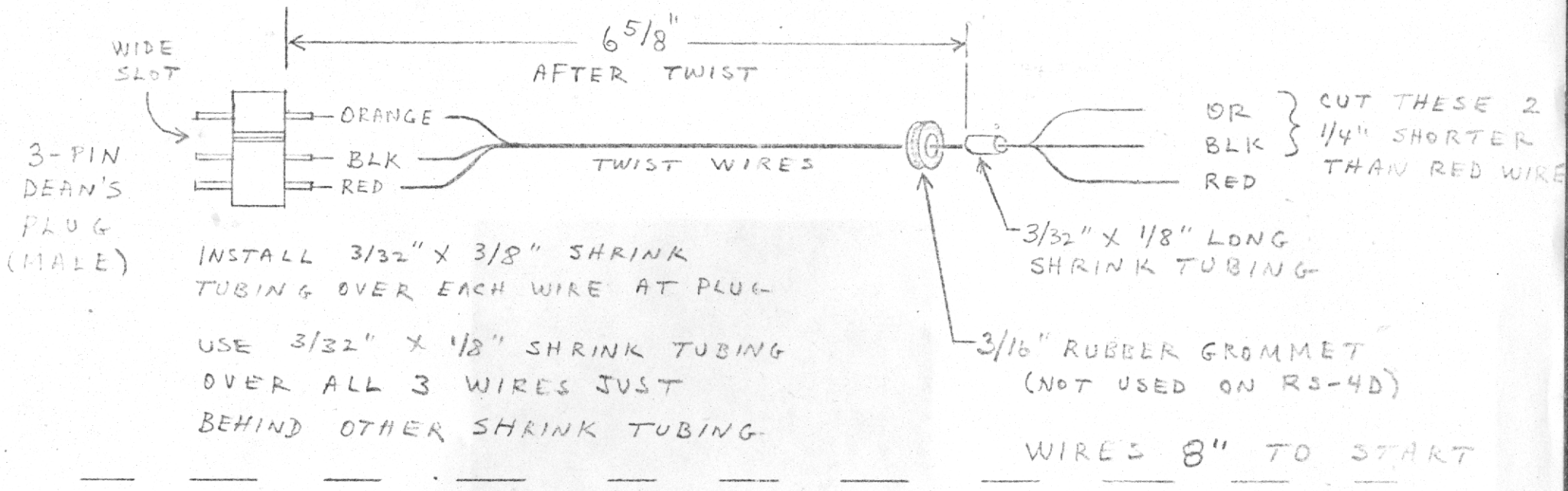
** VARY VALUE TO INCREASE OR DECREASE SERVO THROW

1974 3-WIRE

5/21/74

SERVO PLUG AND CABLE ASSEMBLY

(ALL SERVOS)



1. SOLDER WIRES TO PLUG.
2. INSTALL 4 SHRINK TUBINGS AT PLUG END.
3. TWIST WIRES.
4. INSTALL SINGLE SHRINK TUBING AT POSITION SHOWN.
5. SLIDE ON GROMMET
6. UNTWIST END WIRES
7. CUT OR AND BLK WIRES 1/4" SHORTER THAN RED WIRE.
8. CONNECT WIRES TO P.C. BOARD