

DIGI-COMP II[®]

PARTS LIST AND ASSEMBLY INSTRUCTIONS



MONTCLAIR, NEW JERSEY

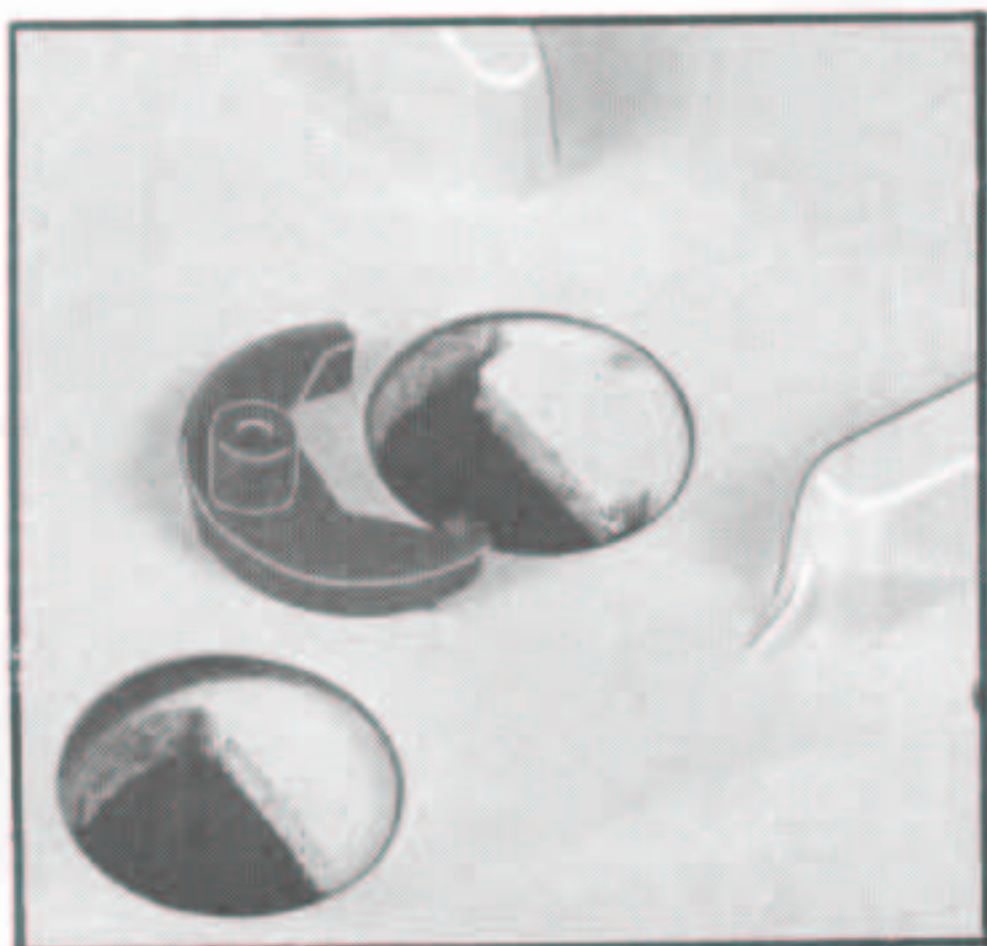
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IMPORTANT! When assembling your Digi-Comp II, look at the pictures carefully. Make sure you put all the parts together the way they are in the pictures. The computer will go together easily. If a piece is difficult to get in place, re-check instructions carefully. For reference as to what Digi-Comp II looks like after it is assembled, see figure 1 of instruction manual.

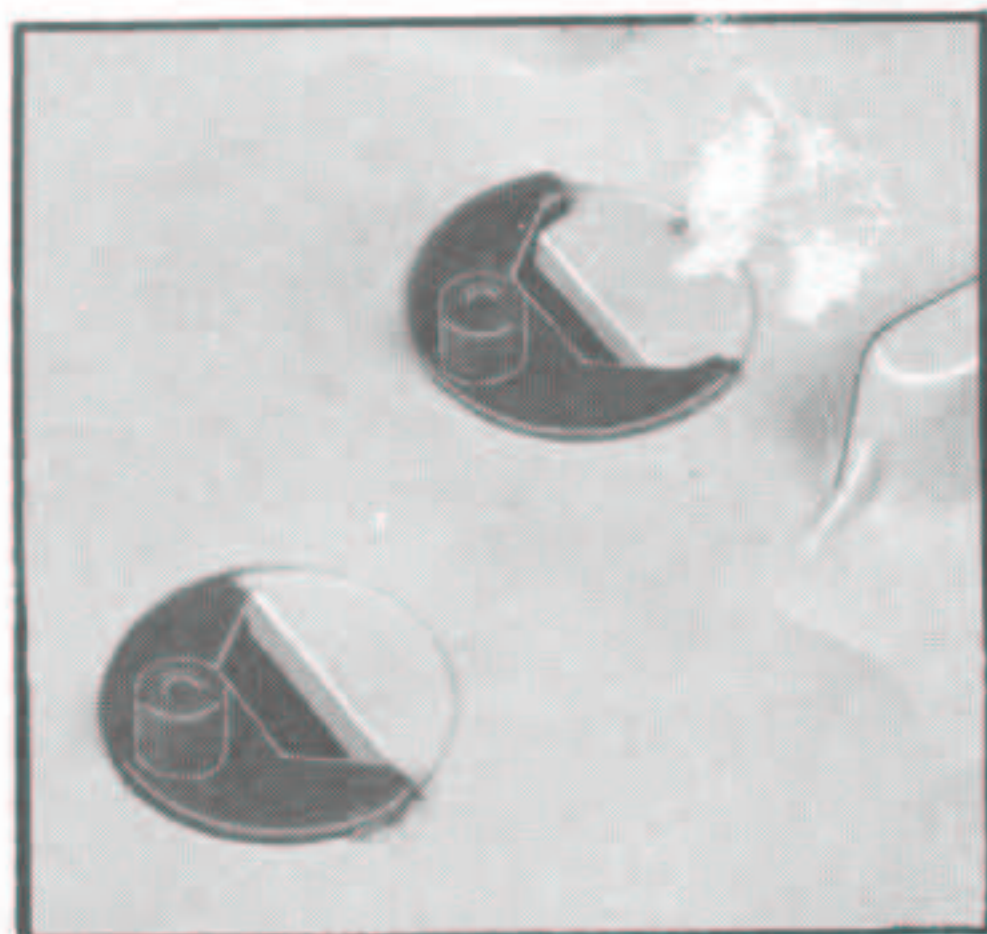
NOTE: Some parts will have more pieces than are actually required. These are included as spare parts.

STEP 1

Press a BEARING #6 into each of the 33 holes on the front of the computer as shown in the before and after views. As a caution, it is recommended that you place the area you are pressing the BEARING into over one or two large books, so that the red molding on the sides is not strained.



BEFORE ASSEMBLY



AFTER ASSEMBLY

FIGURE 1

STEP 2

Put a SHAFT #14 through the hole and slot of each of the following parts as shown:

12 SWITCHES #4



FIGURE 2

10 FLIP-FLOPS With Read Out Studs #2



FIGURE 3

5 FLIP-FLOPS Without Read Out Studs #1



FIGURE 4

4 MEMORY SWITCHES #5

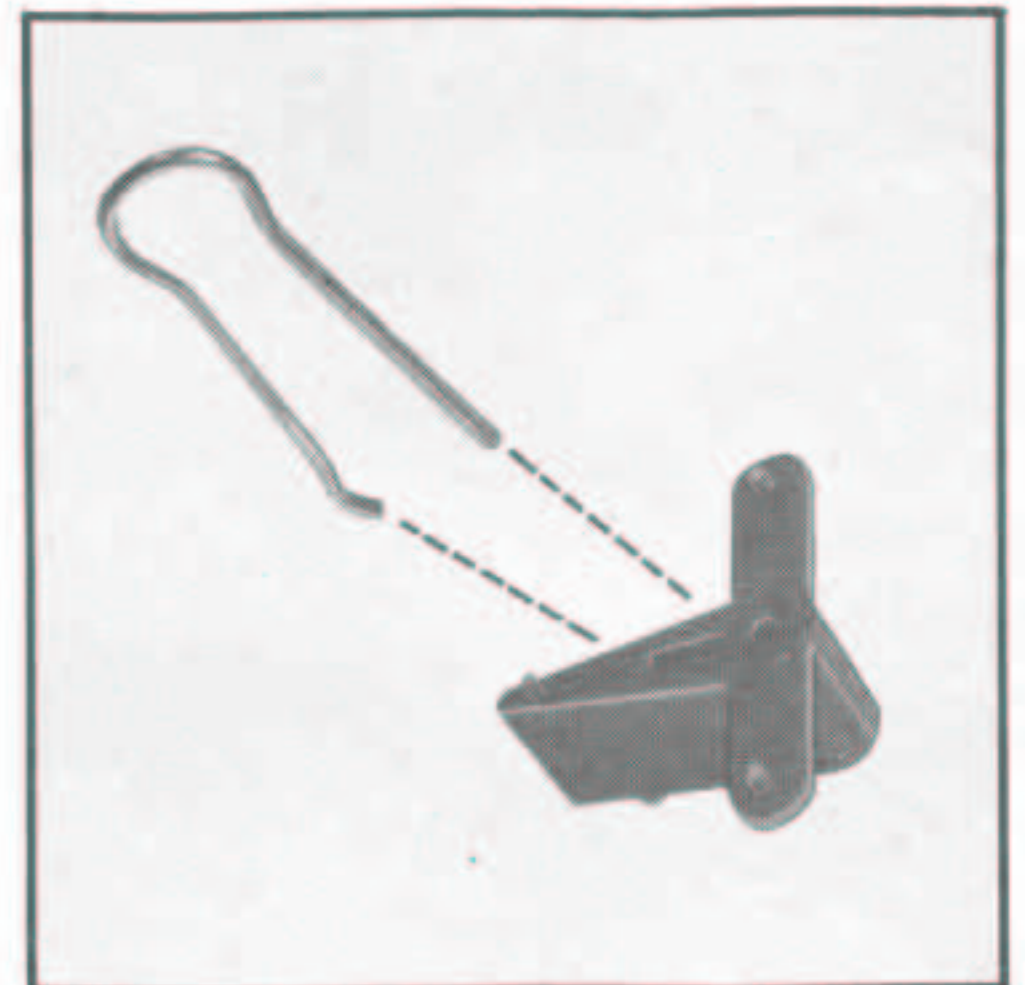


FIGURE 5

1 START SWITCH #8



FIGURE 6

1 RELEASE WHEEL #13



FIGURE 7

STEP 3

Now mount all of the parts prepared in STEP 2 onto the front of the computer. For each part, put the straight portion of the shaft thru the small round hole of the BEARING #6 and the bent portion thru the large opening. Place 12 SWITCHES #4 at bearing locations T1, T2, T3, T4, T5, T6, AM, COMPLEMENT, OVERFLOW, COUNT, CLEAR and MULTIPLY.

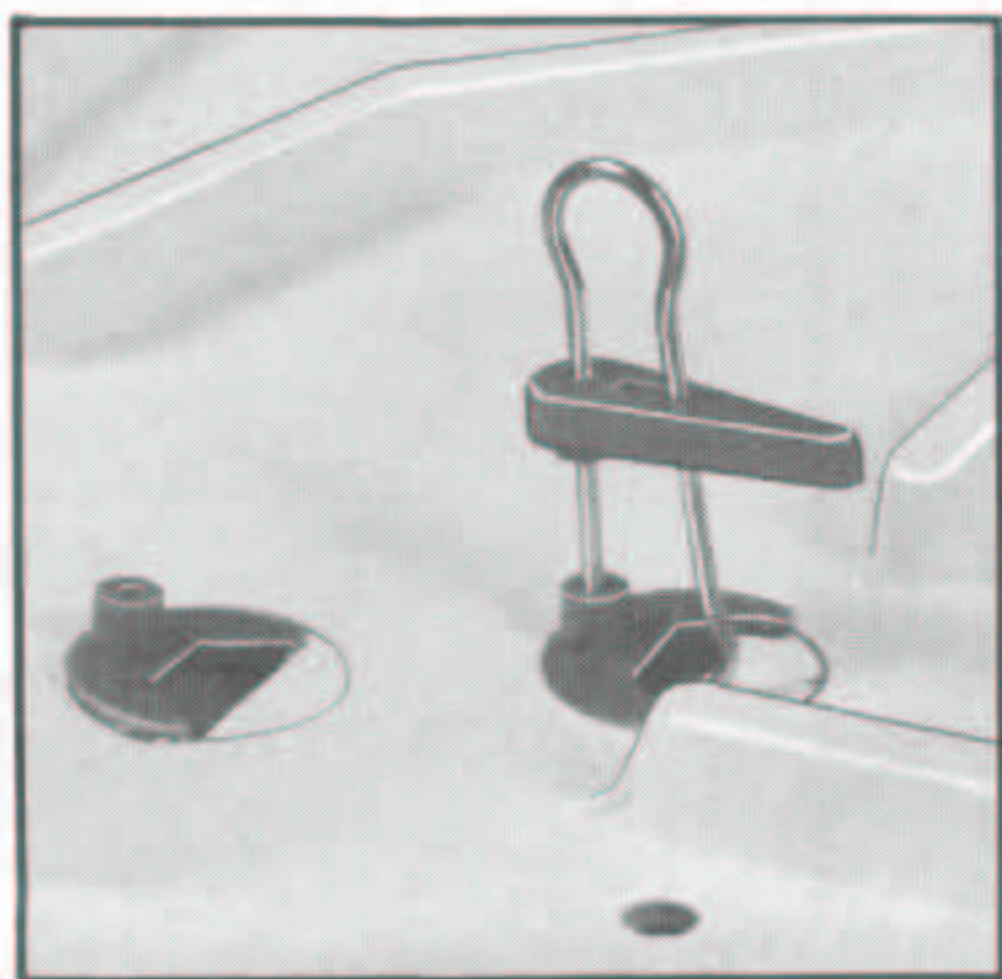


FIGURE 8

Next, place the 10 FLIP-FLOPS with Read Out Studs #2 at the following locations: A1, A2, A3, A4, A5, A6, A7, Q1, Q2, and Q3.

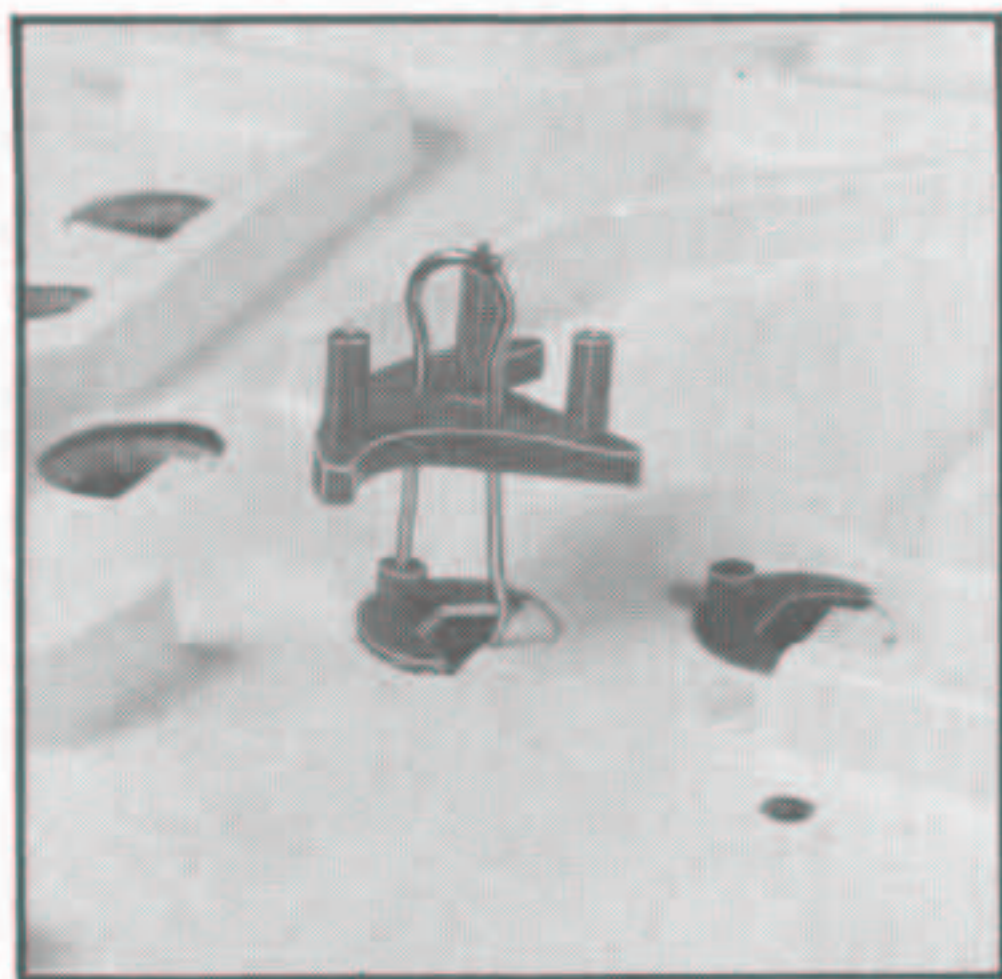


FIGURE 9

Next, place the 5 FLIP-FLOPS *without* Read Out Studs #1 at the following locations: D1, D2, D3, CF1 and CF2. Follow the same mounting procedure as for the previous FLIP-FLOPS.

Next, place the 4 MEMORY SWITCHES #5 at the following locations:

M1, M2, M3 and M4

Again, follow the previous mounting procedure.

Then assemble the START SWITCH #8 in the lower most BEARING as shown.



FIGURE 10

Finally, assemble the RELEASE WHEEL #13 in the upper most BEARING at the end of the marble INPUT GUIDE.

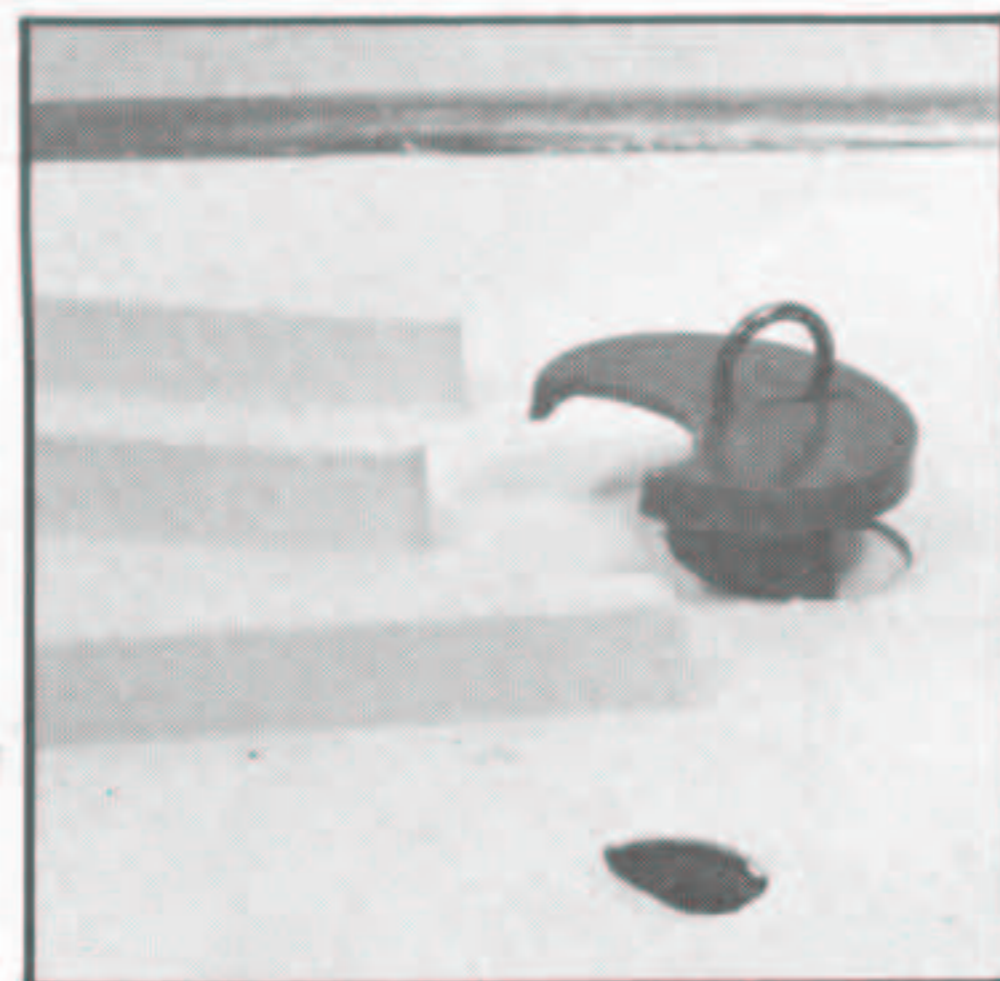


FIGURE 11

STEP 4

Turn your DIGI-COMP II on its side so that you will be able to assemble the correct parts to the bottom. In each case press the part onto a SHAFT from the bottom.

FIRST, assemble six FLIP-FLOPS *without* Read Out Studs #1 under each of the SWITCHES T1, T2, T3, T4, T5, T6.

As shown, the straight part of the SHAFT should protrude only a small amount (about 1/16 of an inch).



FIGURE 12

NEXT, assemble seven HALF FLIP-FLOPS #3 under each of the FLIP-FLOPS A1, A2, A3, A4, A5, A6, A7.

See Fig. #12 above.

NEXT, put a marble in the cup of the RELEASE BALANCE #7 and assemble it under the RELEASE WHEEL as shown.

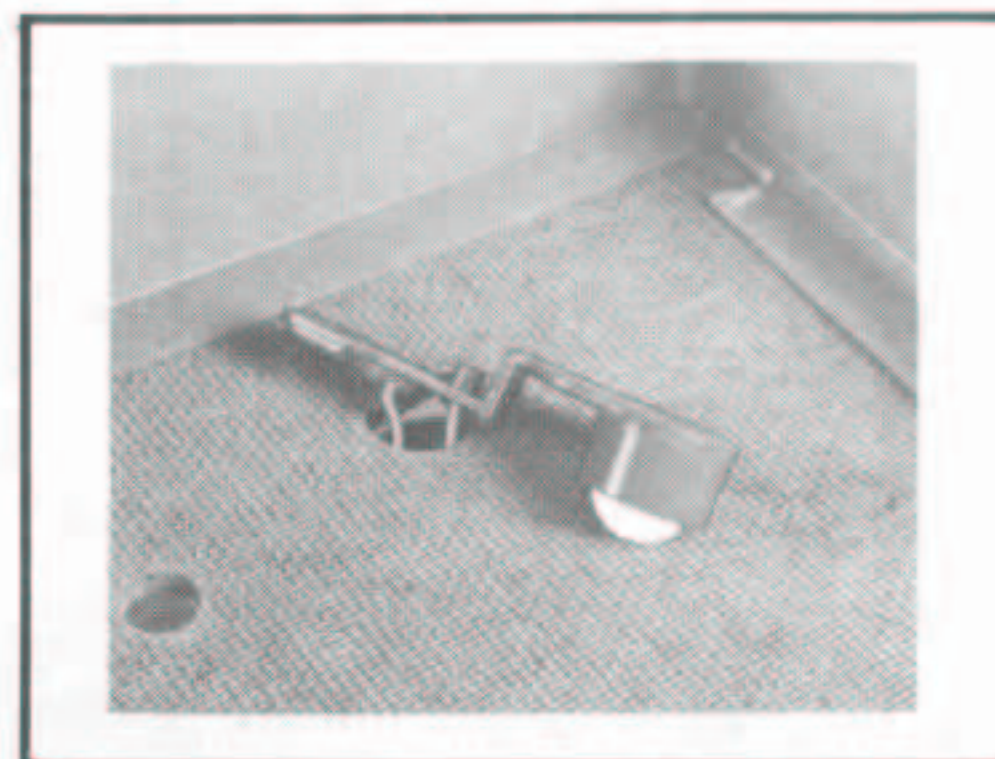


FIGURE 13

Do not push the RELEASE BALANCE on the SHAFT too far so that when the Computer is in the upright position, the marble will rub on the bottom. To check this, simply turn the computer face up and see if the RELEASE WHEEL rotates freely.

STEP 5

Put the computer back on its side and push the RETURN GUIDE #12 into its slot from the bottom side as shown.

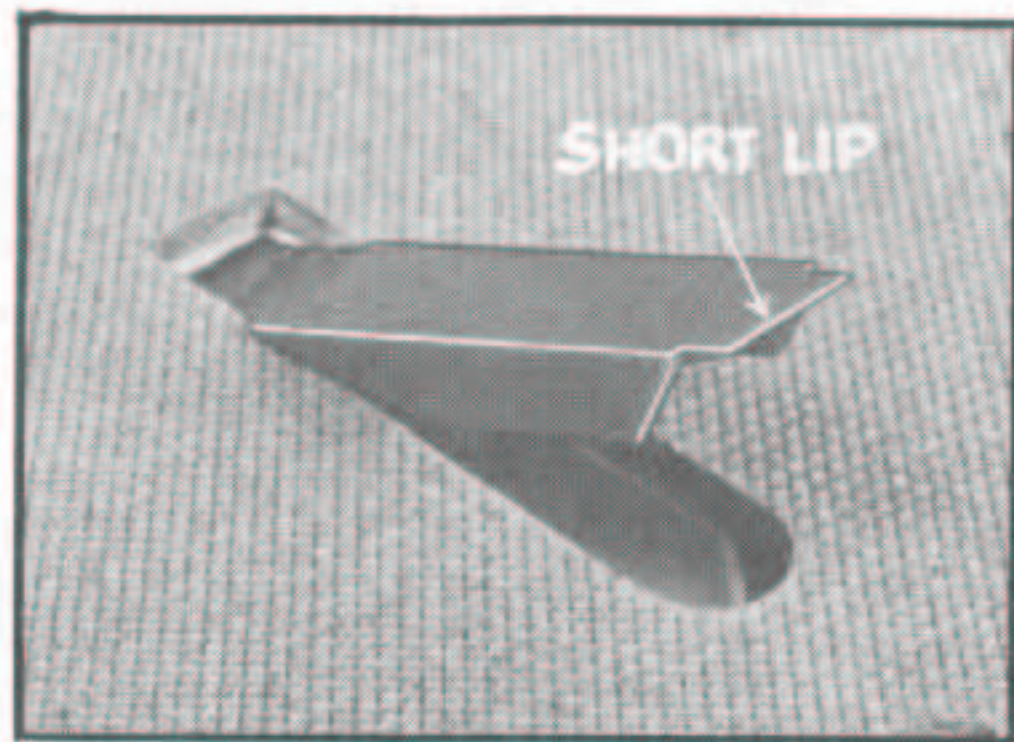


FIGURE 14

The long lip of the RETURN GUIDE should be fairly flush with the front surface of the computer and should rest at the bottom edge of slot when viewed from the front.

(Note: the short lip of the RETURN GUIDE will sit in the small slot on the lower deck of the computer when it is assembled in Step 7.)

STEP 6

Stretch a 1/2 inch-wide piece of Scotch or Masking Tape between each of the guide points on the LOWER DECK as shown.

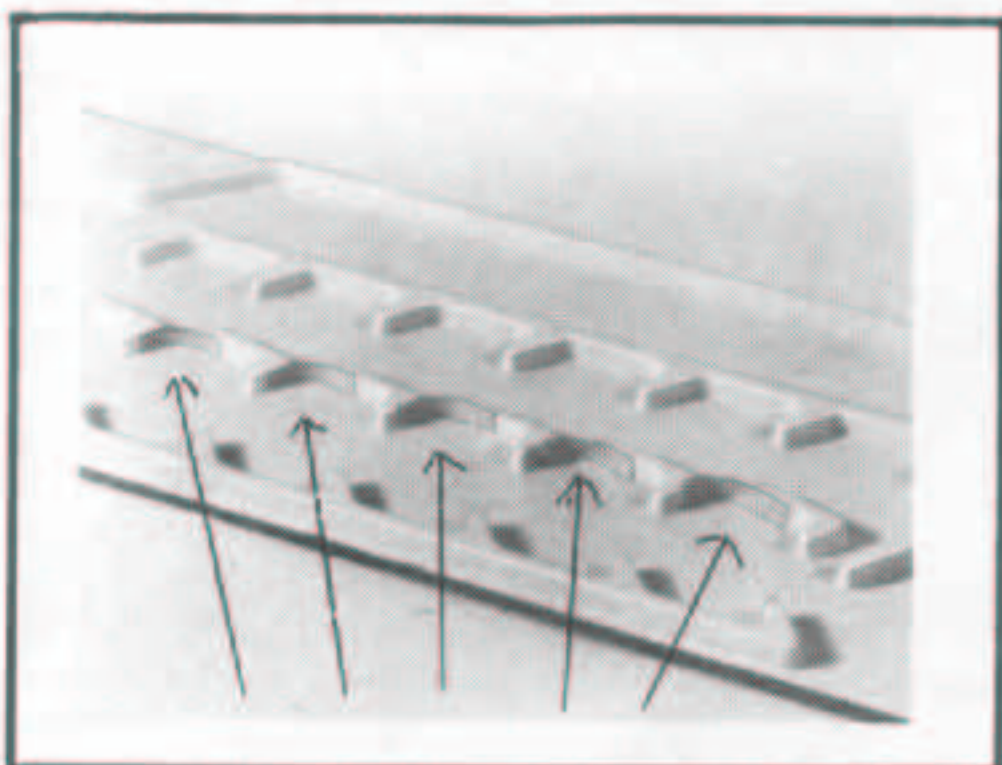


FIGURE 15

STEP 7

With the computer on its side, put a SCREW #15 thru each of the four small (1/8 inch) holes from the front side of the computer.

Next, slip a SPACER #11 over each of the four SCREWS on the bottom side as shown.

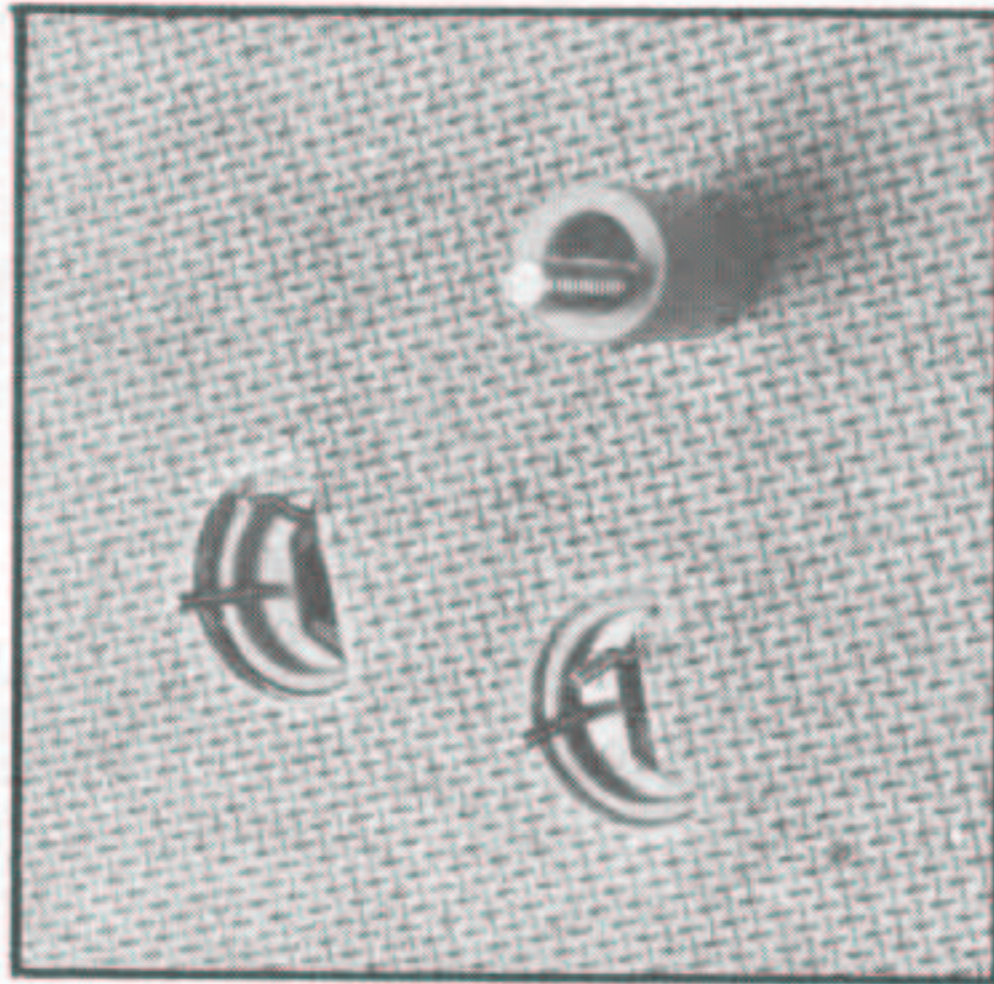


FIGURE 16

Next, with the computer still on its side, assemble the lower deck over the four SCREWS. Use the four NUTS to hold it on.

(Note: Before tightening the NUTS, be sure the short lip of the RETURN GUIDE #12 is resting in the slot of the LOWER DECK as mentioned in Step 5.) The assembled LOWER DECK is shown here.

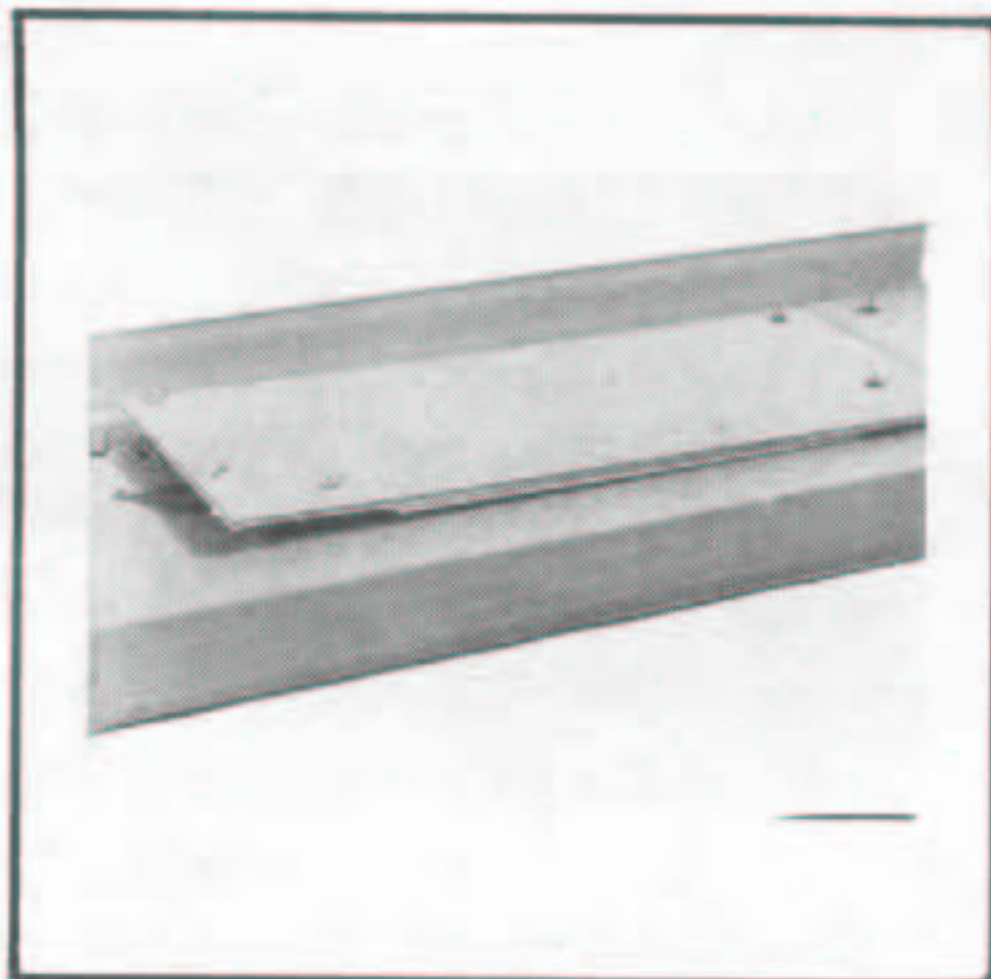


FIGURE 17

STEP 8

With the computer still on its side assemble the ACTUATOR WIRE #10, underneath, by first hooking the end with the wide hook thru the small hole in the RELEASE BALANCE #7 as shown.

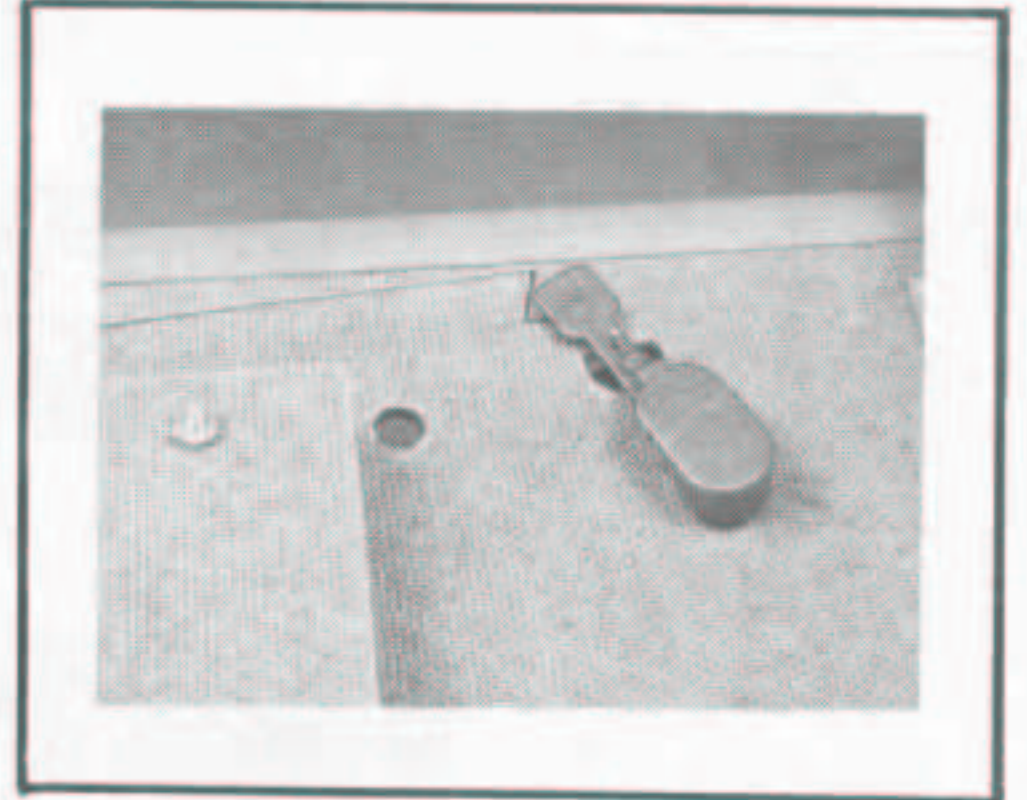


FIGURE 18

Then put the end with the small hook up thru the slot in the Front Panel and back down thru the small hole in the START SWITCH #8 as shown.



FIGURE 19

Be sure the ACTUATOR WIRE is straight and has no kinks in it.

STEP 9

Spread some ordinary household glue around the turned down surface of the WOODEN LEG #21 and both sides of the WASHER #18.

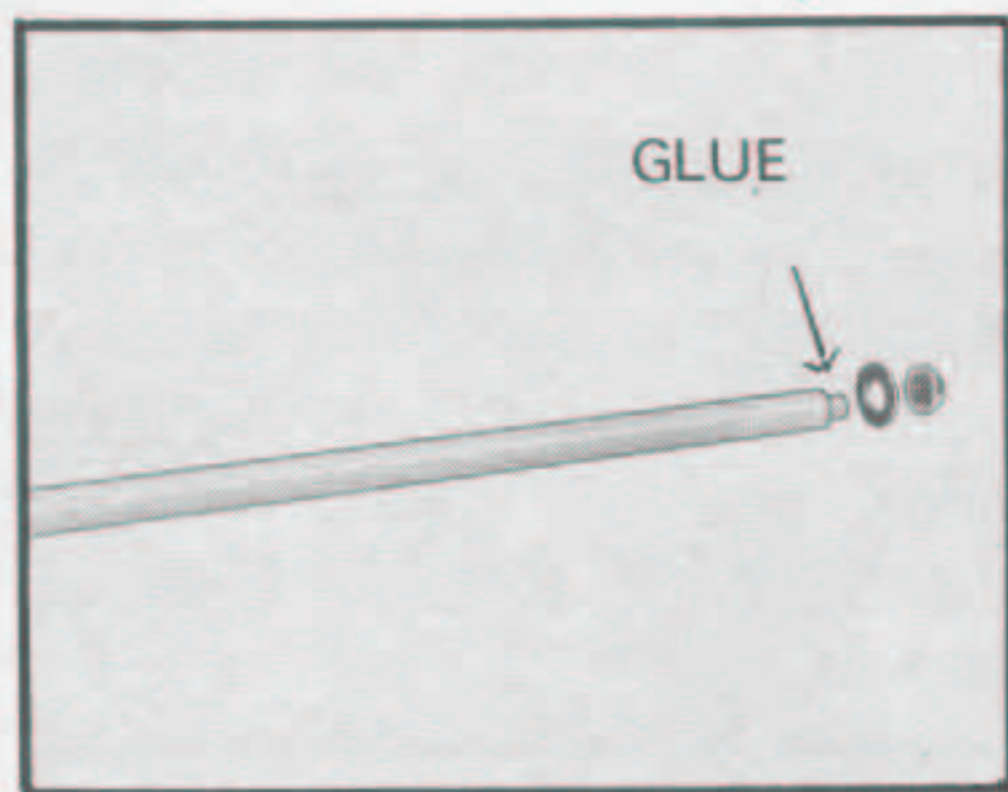


FIGURE 20

Press the LEGS with the washers on thru the holes from the rear of the computer. Raise the other end of the computer with books so that the computer is horizontal. Now, tap the METAL CAPS #17 on to the LEGS with a small hammer to secure them. They should be very tight against the front panel of the computer. Allow glue to dry.

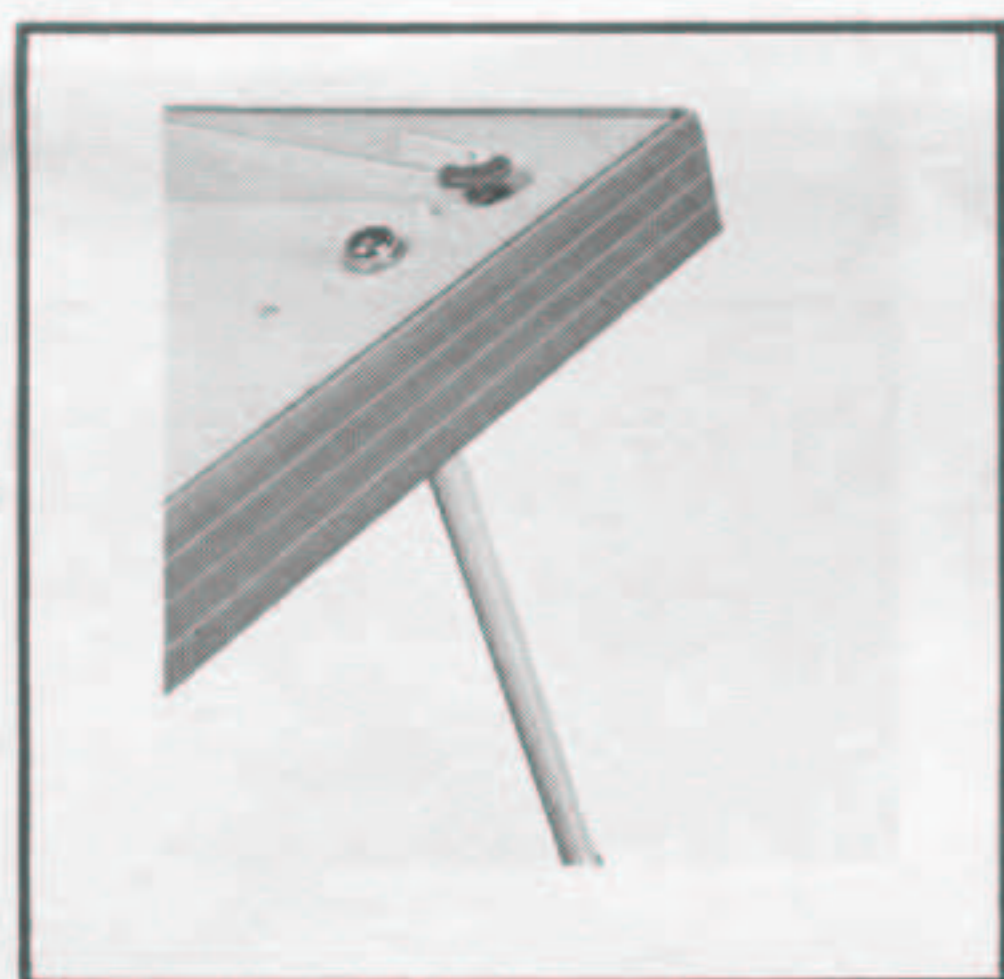


FIGURE 21

STEP 10

When the glue is dry, press the FEET #19 on to the bottom ends of the LEGS.

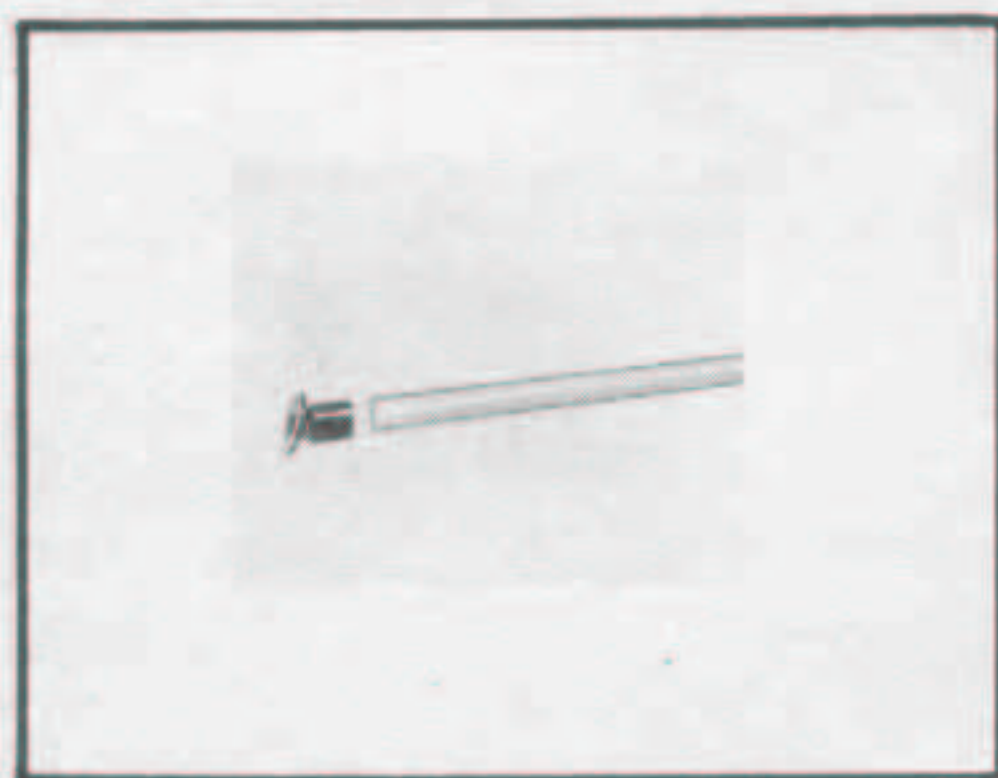


FIGURE 22

STEP 11

Before proceeding further, check out the RETURN GUIDE #12 operation. To do this, simply place your DIGI-COMP on a table and drop a marble into one of the holes next to a MEMORY SWITCH. The marble should roll down the LOWER DECK and come out the RETURN GUIDE onto the front of the computer. If it does not, the RETURN GUIDE may not be in the correct position and should be readjusted as discussed in Step 5.

STEP 12

Place the MARBLE CUP #9 in the slot of the START SWITCH #8 as shown in Fig. 10 in Step 3 above. Put a marble in the CUP as shown and set the CUP about halfway into the slot.

The purpose of this CUP and marble is to balance the START SWITCH action. To test its operation, take the following steps.

1. Place a marble in the START SWITCH Guide, immediately above the right hand end of it. Let the marble roll down so that it hits the tab on the START SWITCH. It should push the SWITCH down, roll through *and* then the SWITCH should return to its upper position.
2. If the START SWITCH does not go down when the marble hits it, move the MARBLE CUP #9 to the right, that is, *further into* the slot on the START SWITCH.
3. If the START SWITCH goes down when the marble hits it but does not return, move the MARBLE CUP to the left, that is, *further out* of the slot.

STEP 13

Next, check out the total marble operation of the START SWITCH *and* RELEASE WHEEL. To do this, put several marbles in the INPUT GUIDE at the top. Let another marble roll through the START SWITCH at the bottom just as you did in Step 12. As the START SWITCH goes down, the ACTUATOR WIRE #10 connecting the START SWITCH to the RELEASE WHEEL should cause the WHEEL to rotate so that its half-moon shaped slot moves upward to catch a marble from the Input Guide in this half-moon shaped slot. Then, as the START SWITCH goes back up, the RELEASE WHEEL will rotate so that the half-moon slot goes down with the marble in it and dumps the marble into the Guide below the Input Guide.

IF this does not happen smoothly, check Step 8 to be sure the ACTUATOR WIRE #10 is connected properly. Look underneath the unit to be certain it is not bent and is completely free to move.

STEP 14

Press the READOUT INDICATORS #20 on the FLIP-FLOPS with Readout Studs #2 and the four MEMORY SWITCHES #5. Each READOUT INDICATOR snaps over the three little pins as shown in the picture below.

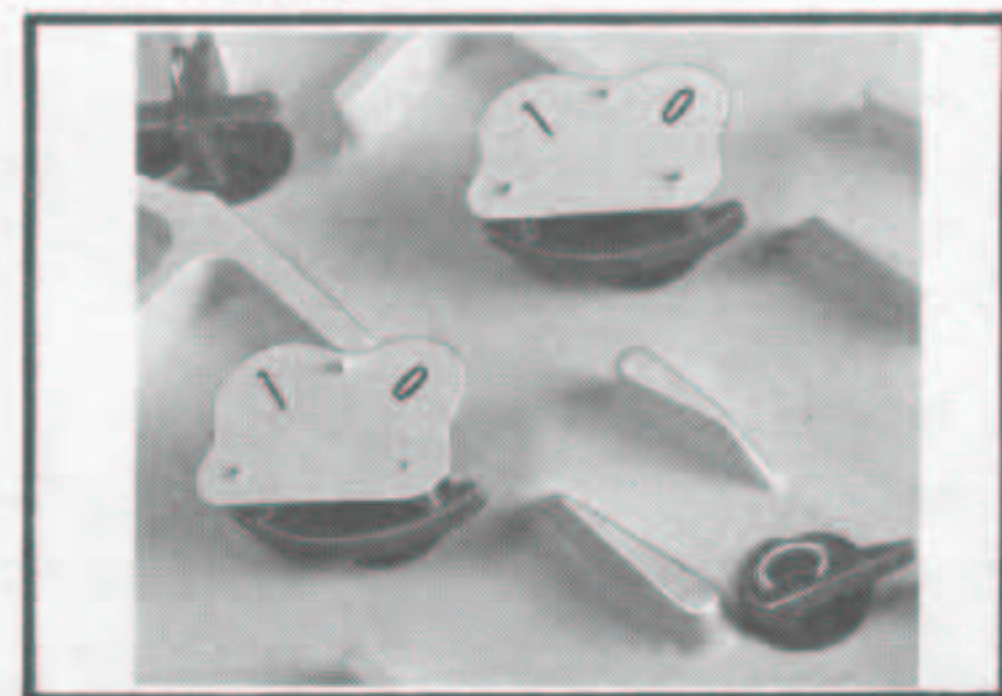


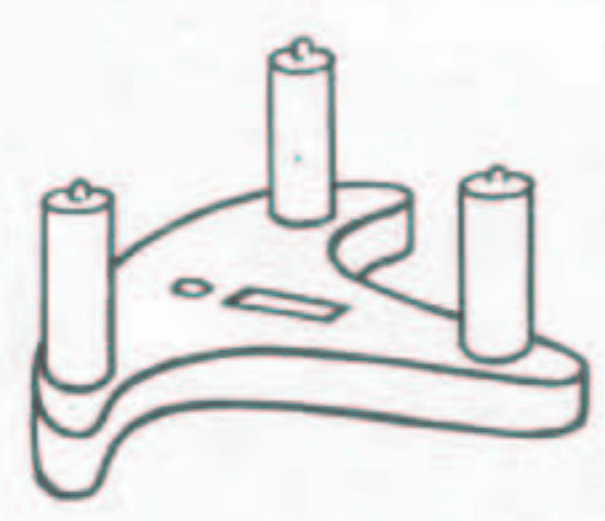
FIGURE 23

Since each READOUT INDICATOR is different you must be careful where to mount them. *See Page 4 of the Instruction Manual for the correct positions.*

Also, note that the four READOUT INDICATORS for the MEMORY SWITCHES have slots in them.



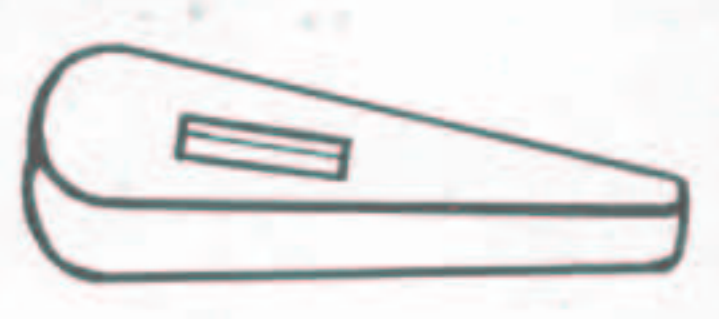
FLIP-FLOP
WITHOUT
READ OUT STUD
Part #1
(11 pieces)



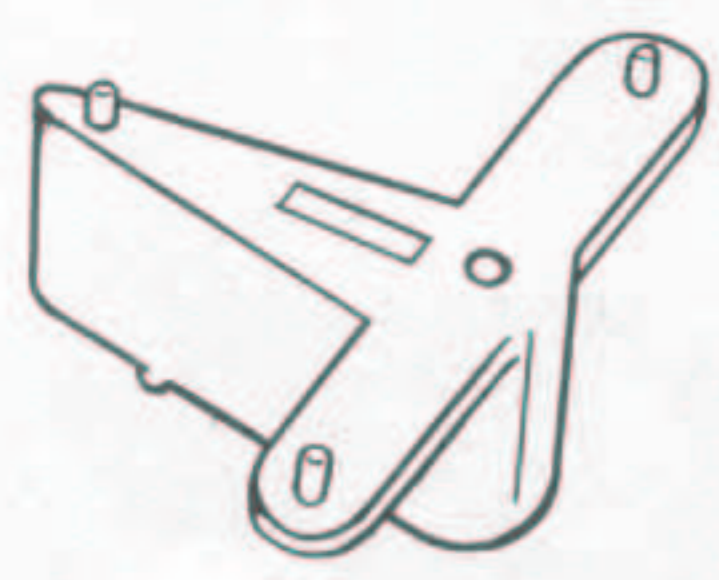
FLIP-FLOP
WITH READ OUT STUD
Part #2
(10 pieces)



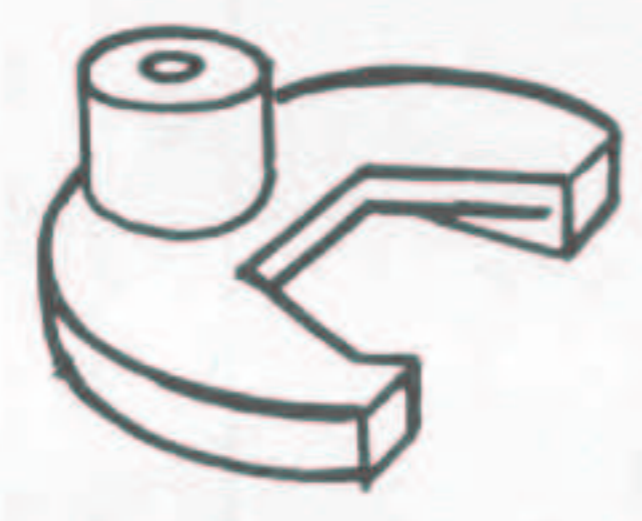
HALF FLIP-FLOP
Part #3
(7 pieces)



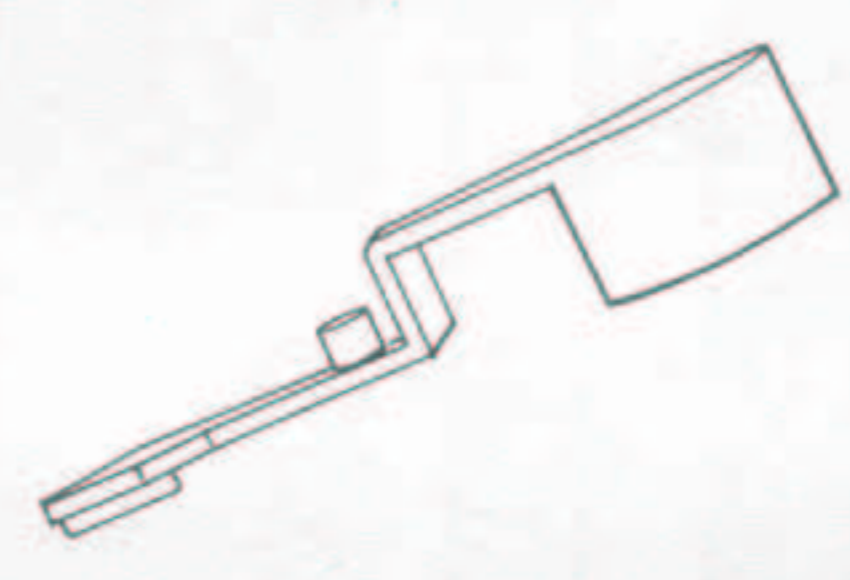
SWITCH
Part #4
(12 pieces)



MEMORY SWITCH
Part #5
(4 pieces)



BEARING
Part #6
(33 pieces)



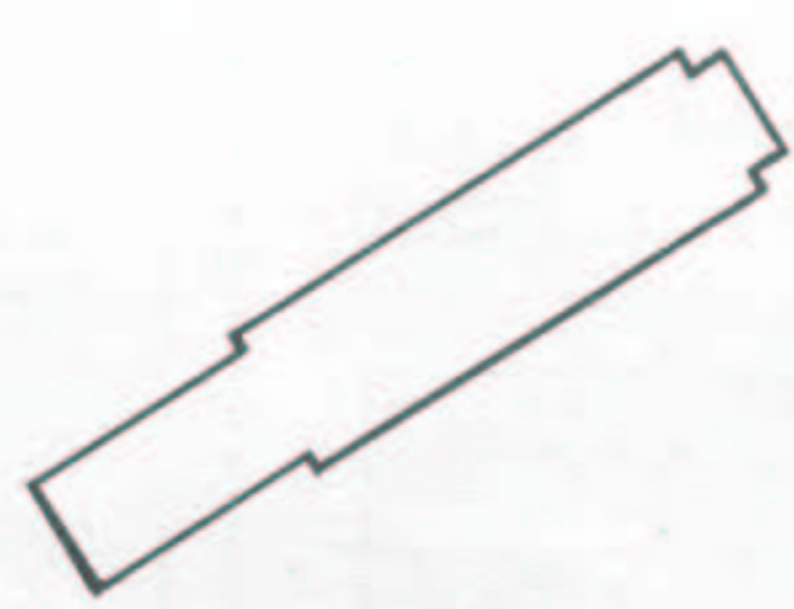
RELEASE BALANCE
Part #7
(1 piece)



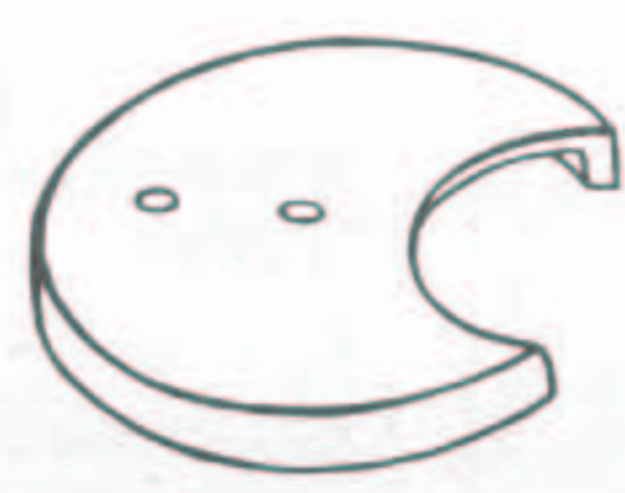
MARBLE CUP
Part #9
(1 piece)



SPACER
Part #11
(4 pieces)



RETURN GUIDE
Part #12
(1 piece)



RELEASE WHEEL
Part #13
(1 piece)



SHAFT
Part #14
(33 pieces)



SCREW
Part #15
(4 pieces)



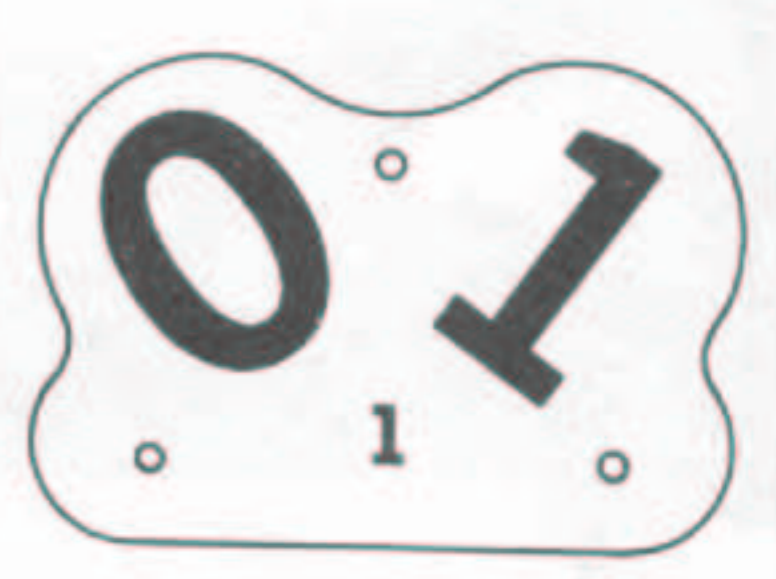
METAL CAP
Part #17
(2 pieces)



WASHER
Part #18
(2 pieces)



FEET
Part #19
(2 pieces)



READ OUT INDICATOR
Part #20
(14 pieces)



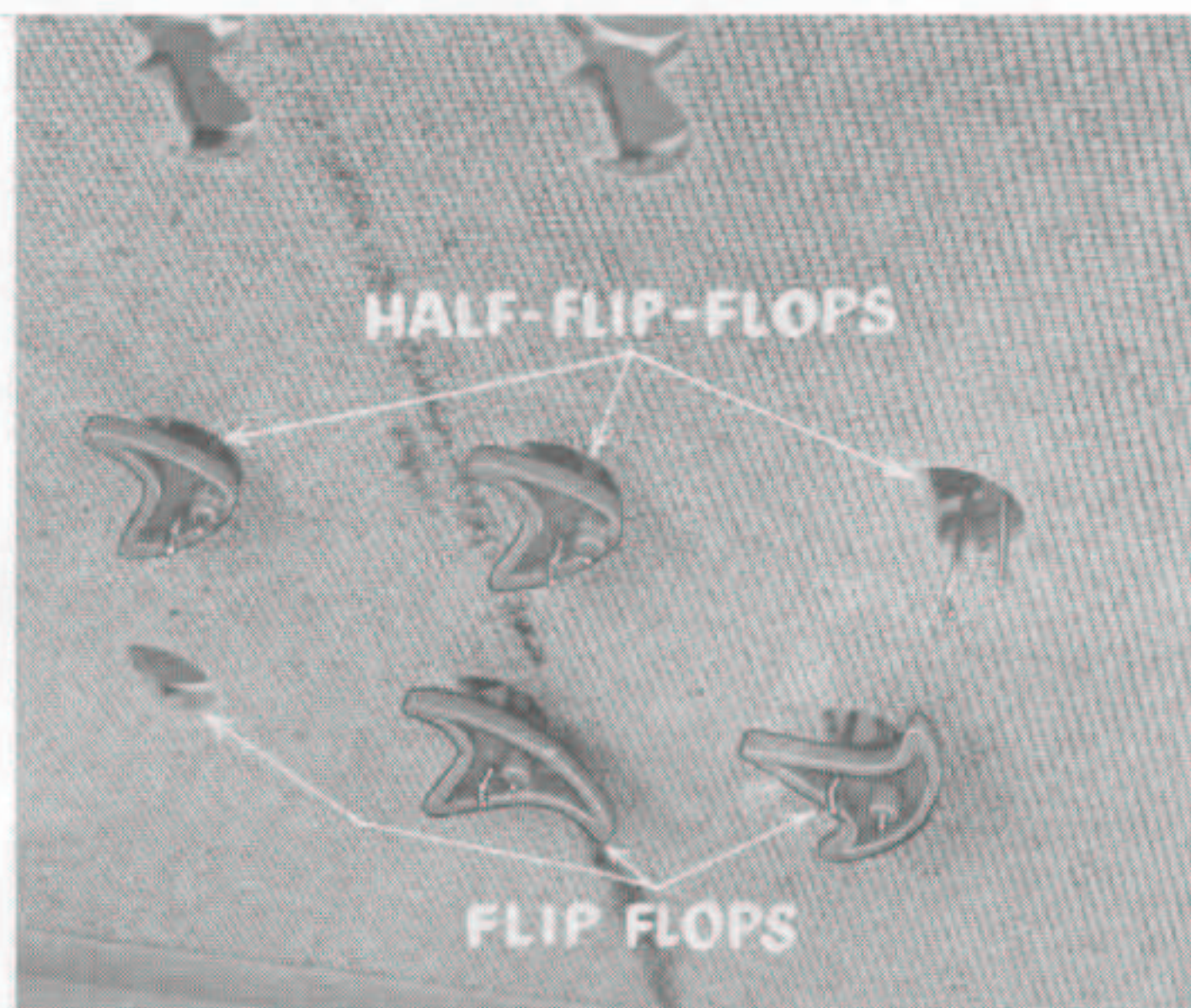
WOODEN LEG
Part #21
(2 pieces)

SUPPLEMENT TO ASSEMBLY INSTRUCTIONS

If a marble jams under the memory switches, cut out a little round piece of cardboard, punch the shaft through it and assemble it under the memory switch to raise it up-

We have found it easier to do Step 14 before Step 3.

Note larger picture below for better visualizing of Flip-Flops in Fig. 12.



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