

# ASSEMBLY MANUAL

FOR

COMPUROBOT II KIT FORM

# ASSEMBLES DESCRIPTIONS

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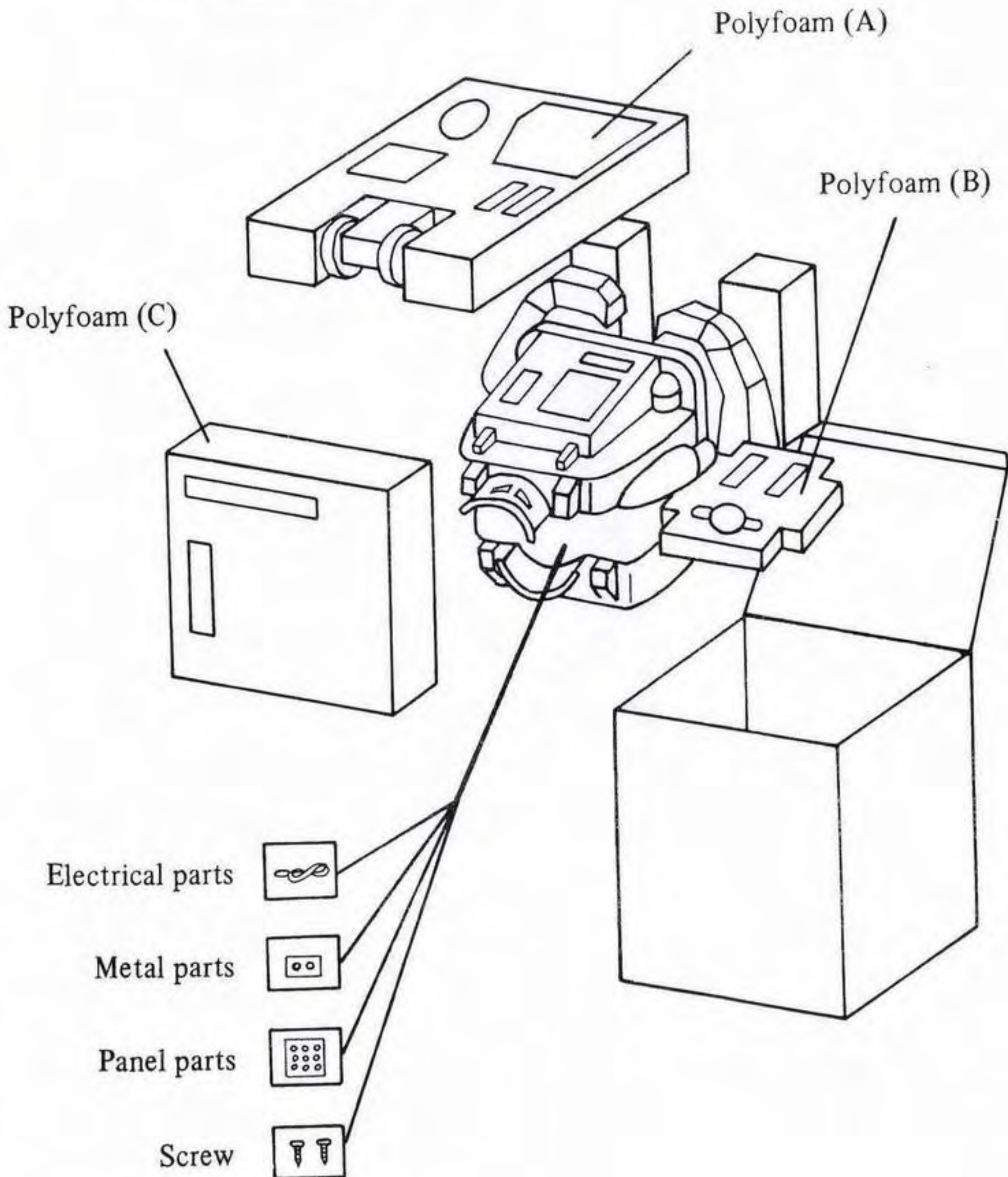
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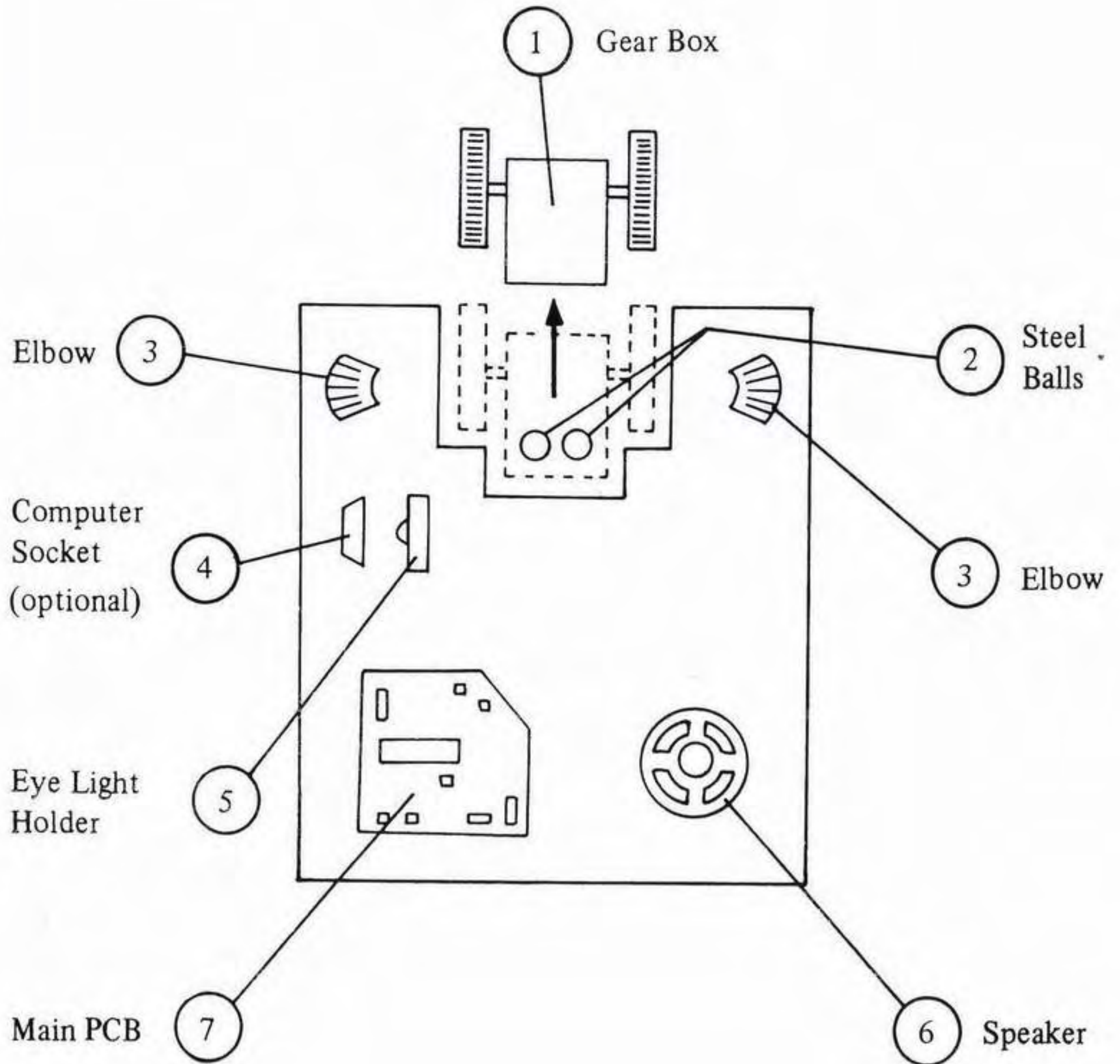


# A. PARTS IDENTIFICATION

## 1. Polyfoam Identification

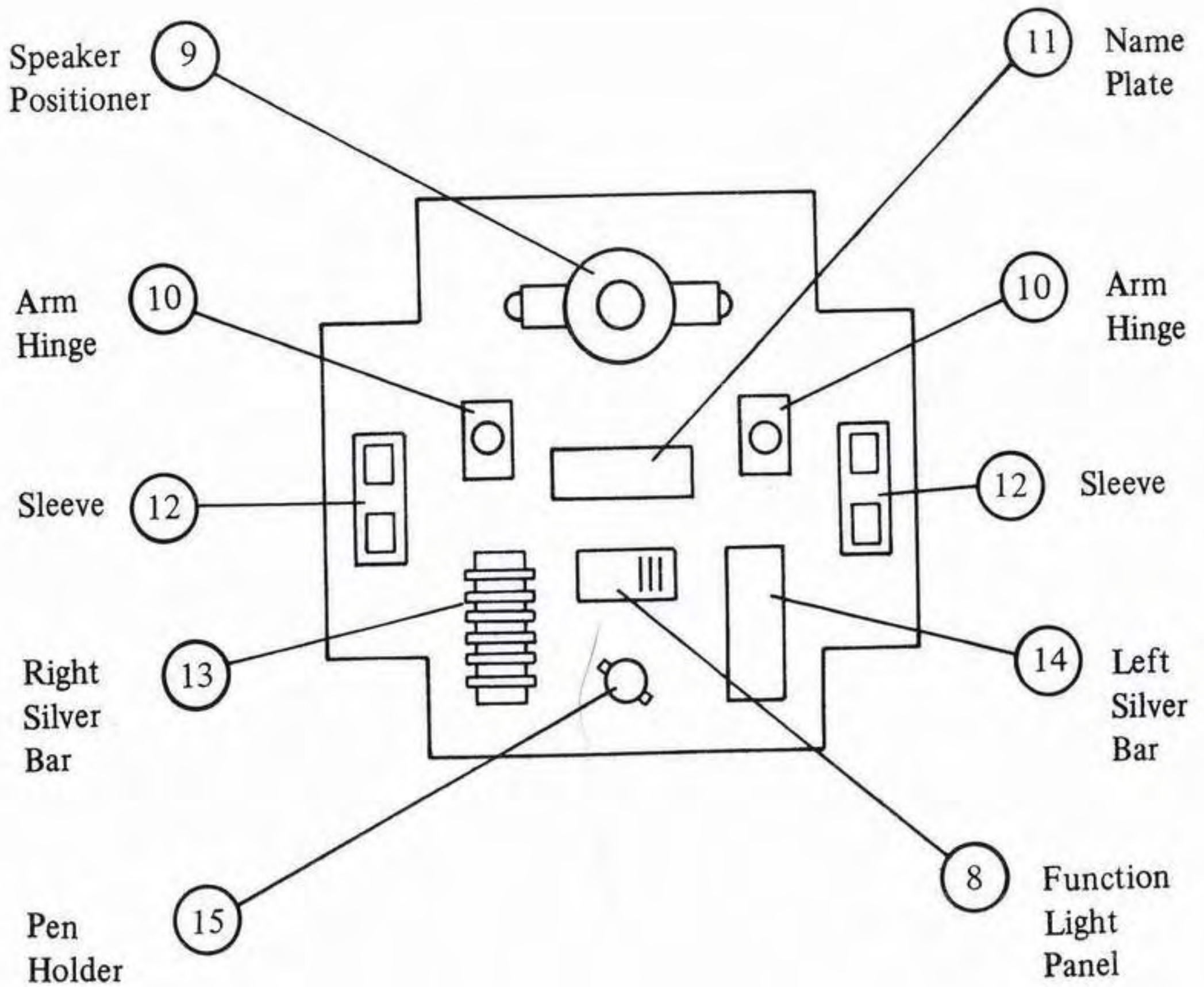


## 2. Parts in polyfoam (A)

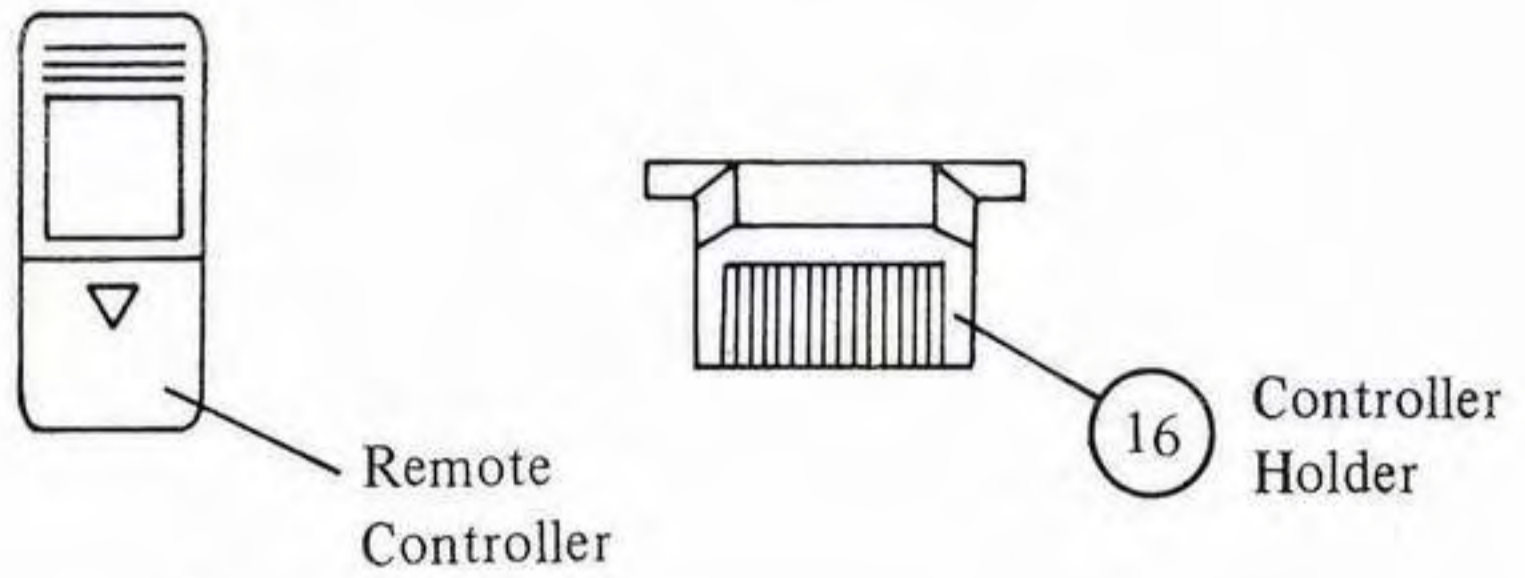




### 3. Parts in polyfoam (B)

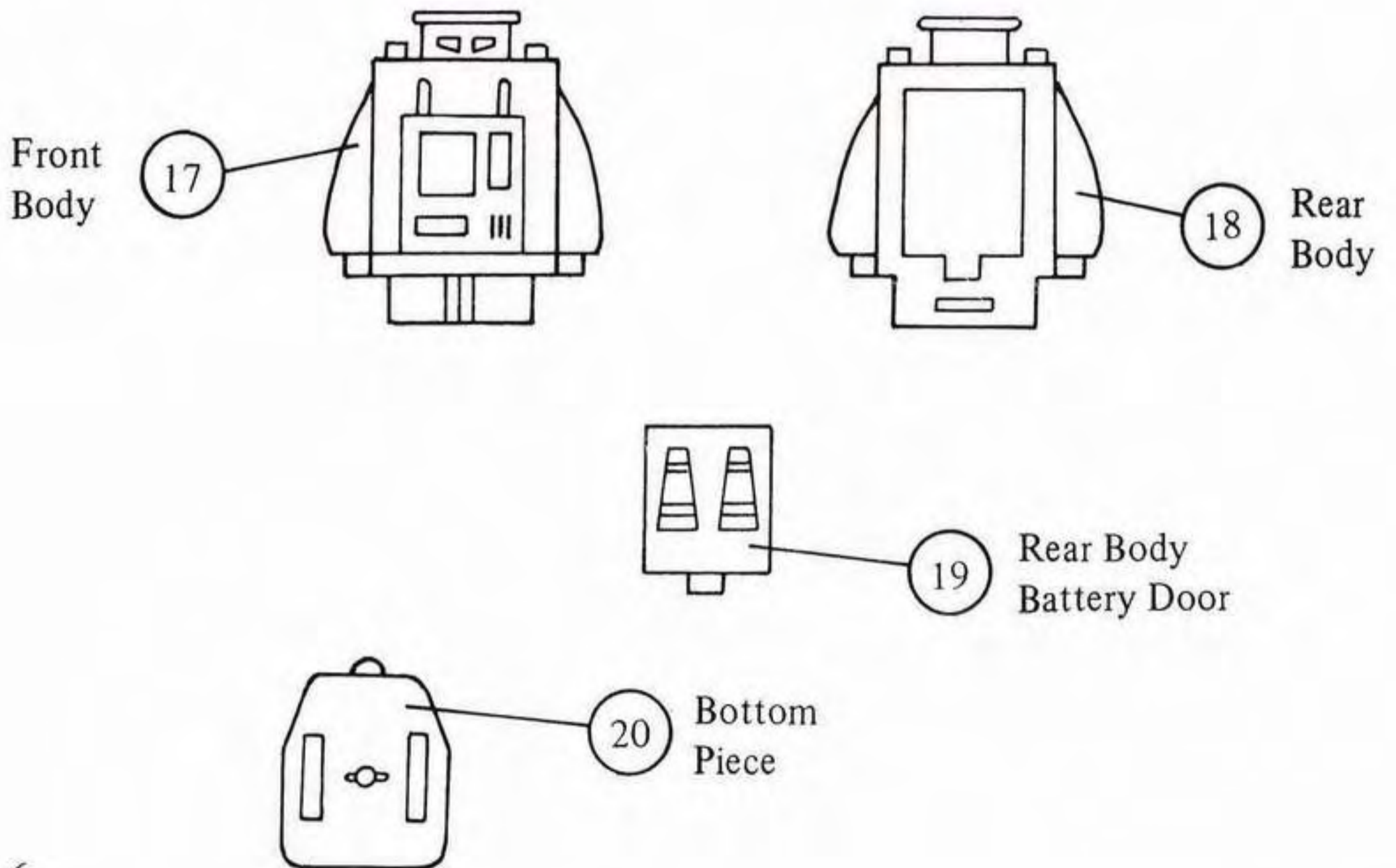


4. Parts in polyfoam (C)



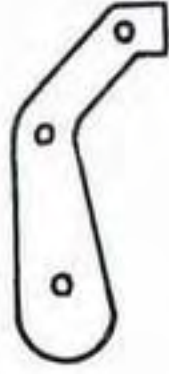
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5. Plastic parts



Lower  
Right  
Arm

21



22

Upper  
Right  
Arm



Upper  
Left  
Arm

23



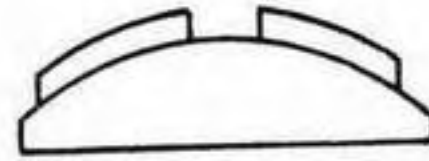
24

Lower  
Left  
Arm



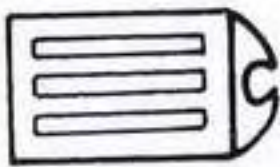
25

Transparent  
Helmet



26

Goggles



27

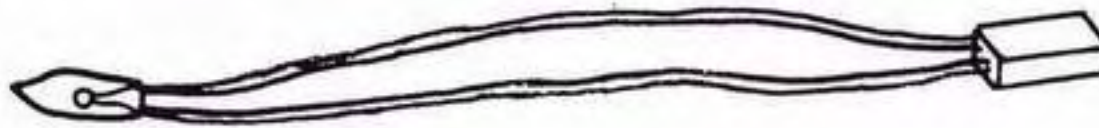
Function  
Light  
Holder



6. Electrical parts



28 Brain PCB



29 Function Light Bulb



30 Silver Bar Wire

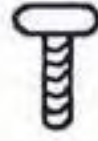
## 7. Metal parts

SA



Screw A  
(5 pcs) or  
(7 pcs) for robot  
with computer interface

SB



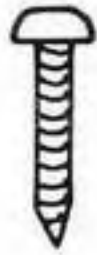
Screw B  
(2 pcs)

SD



Screw D  
(2 pcs)

SF



Screw F  
(12 pcs)

SG

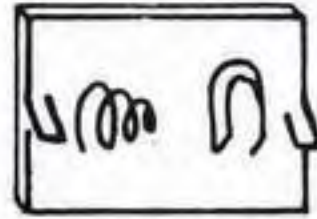


Screw G  
(2 pcs)

SH



Screw H  
(4 pcs)



P1

Battery  
Plate



N1

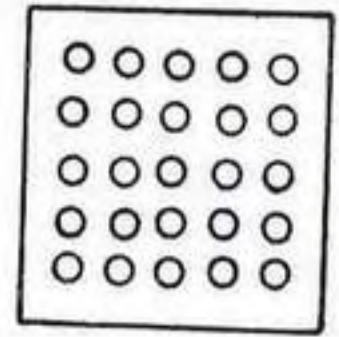
Right Arm  
Spring



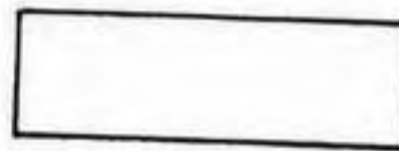
N2

Left Arm  
Spring

8. Panel parts



31 Voice Box Panel



32 Trapezoid Hole Panel for Compurobot II without computer interface (optional)

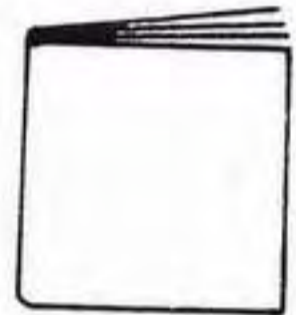
9. Manuals & Tools



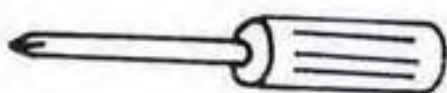
Personal File



Assembly Manual



How To Program me from your Personal Computer (optional)



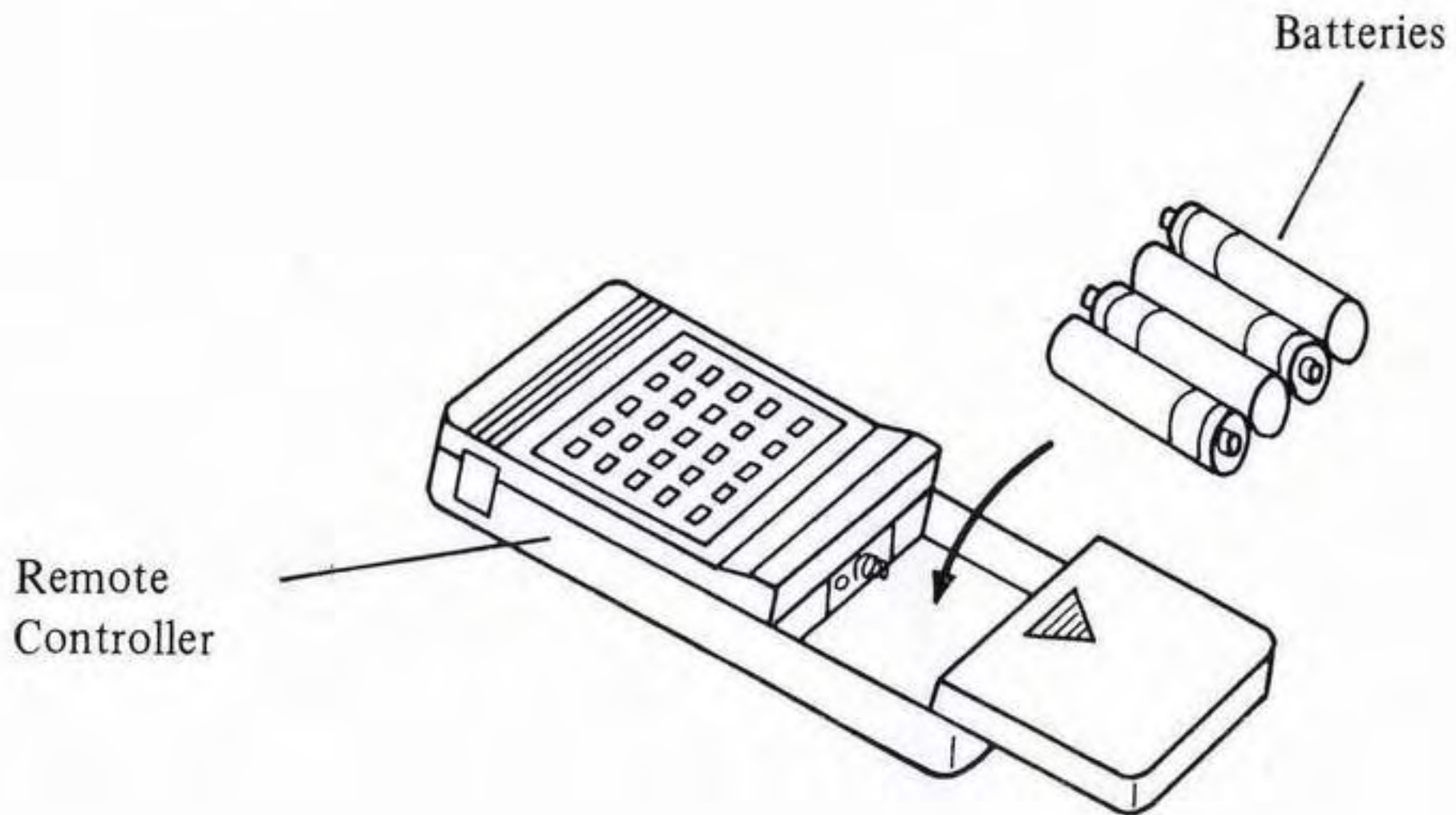
Screwdriver



## B. ASSEMBLE REMOTE CONTROLLER

### 10. Batteries & Battery Door

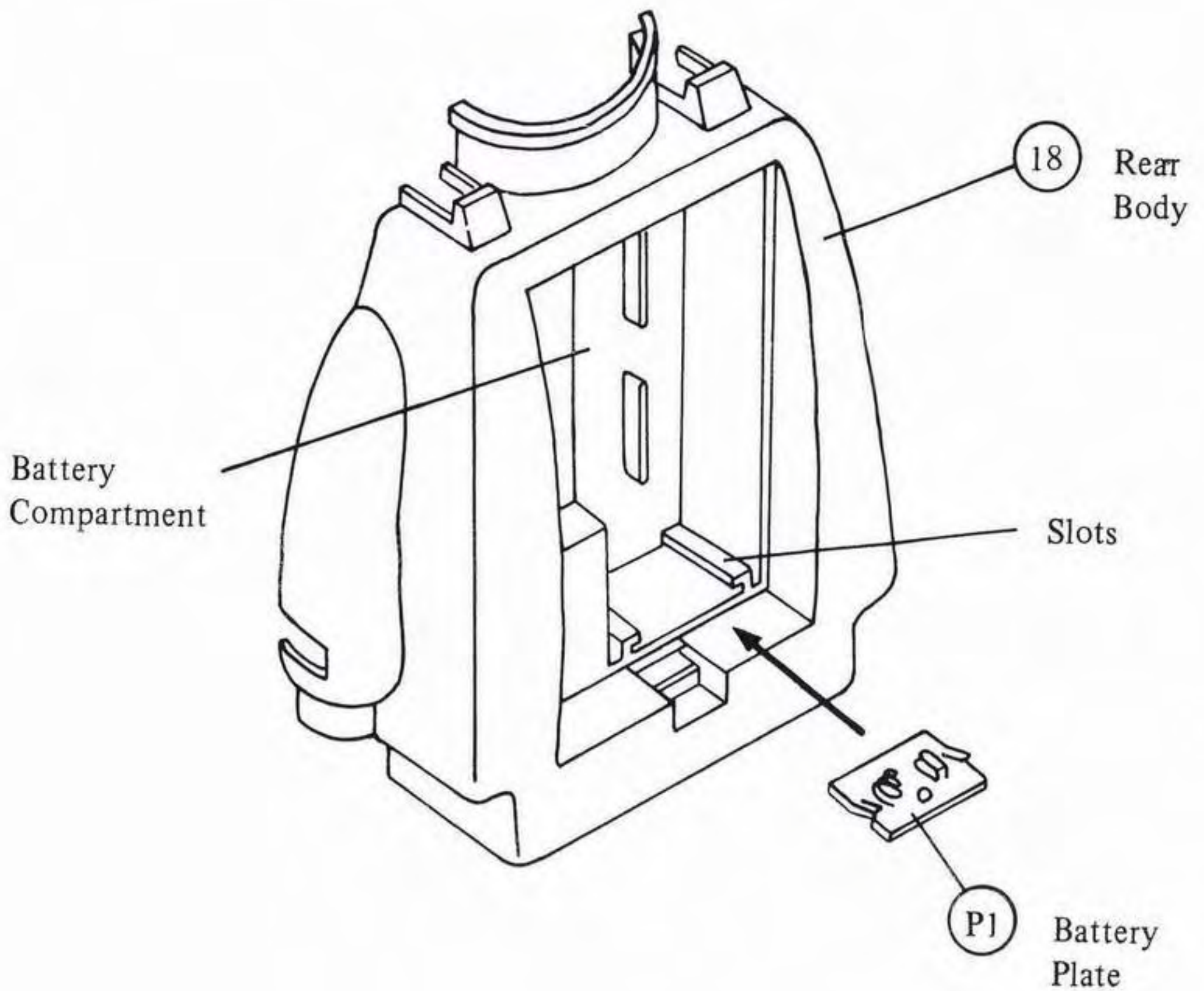
Insert 4 pieces of UM-3 (size AA, 1.5 volt) batteries into battery compartment according to (+) (-) signs, close battery door.



## C. ASSEMBLE REAR BODY

### 11. Battery Plate

Insert battery plate into slots at bottom end of battery compartment. Spring should face (-) sign.

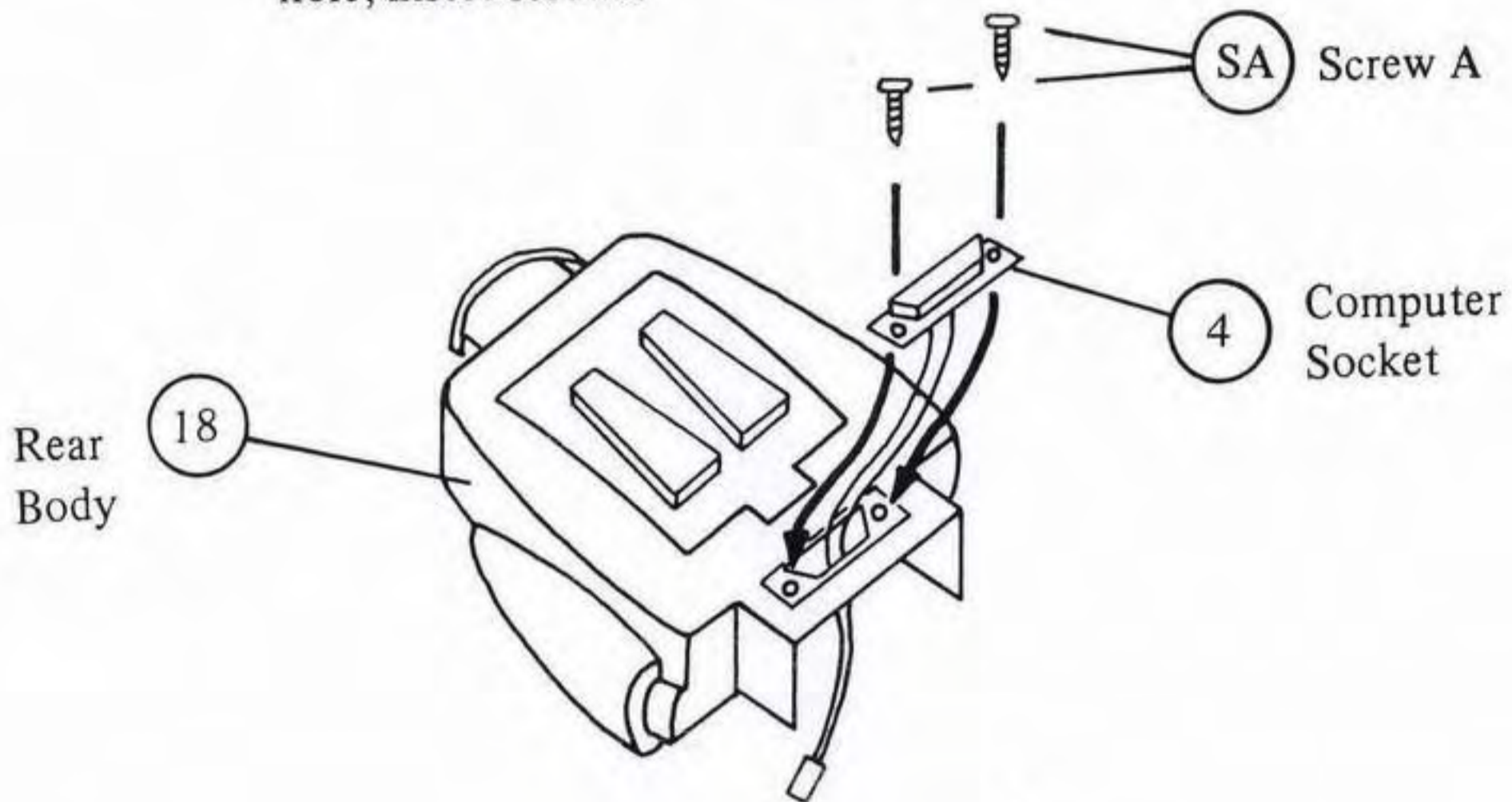




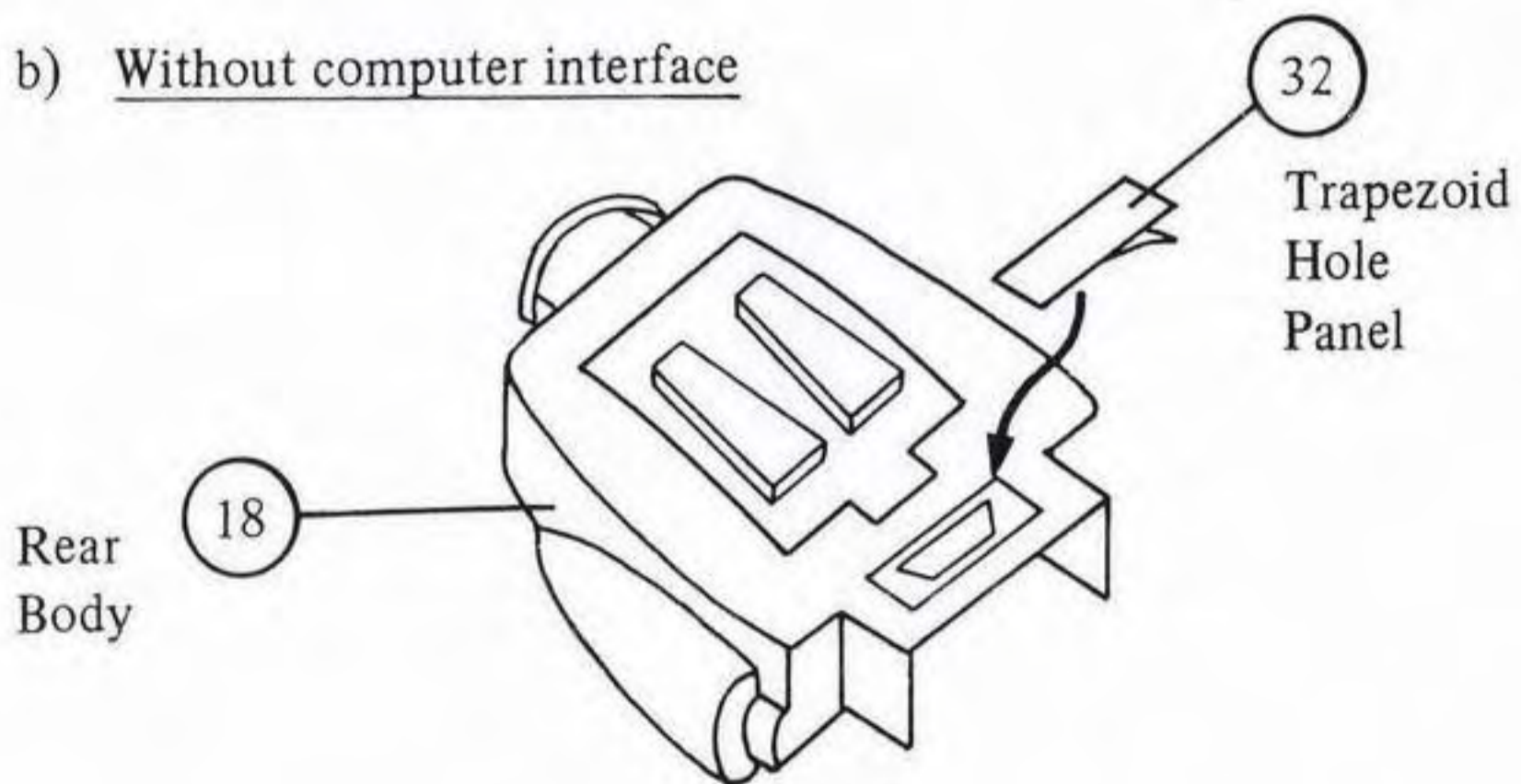
## 12. Trapezoid Hole

a) With computer interface (optional)

Pass computer socket wires & plugs through the trapezoid hole, insert screws.



b) Without computer interface

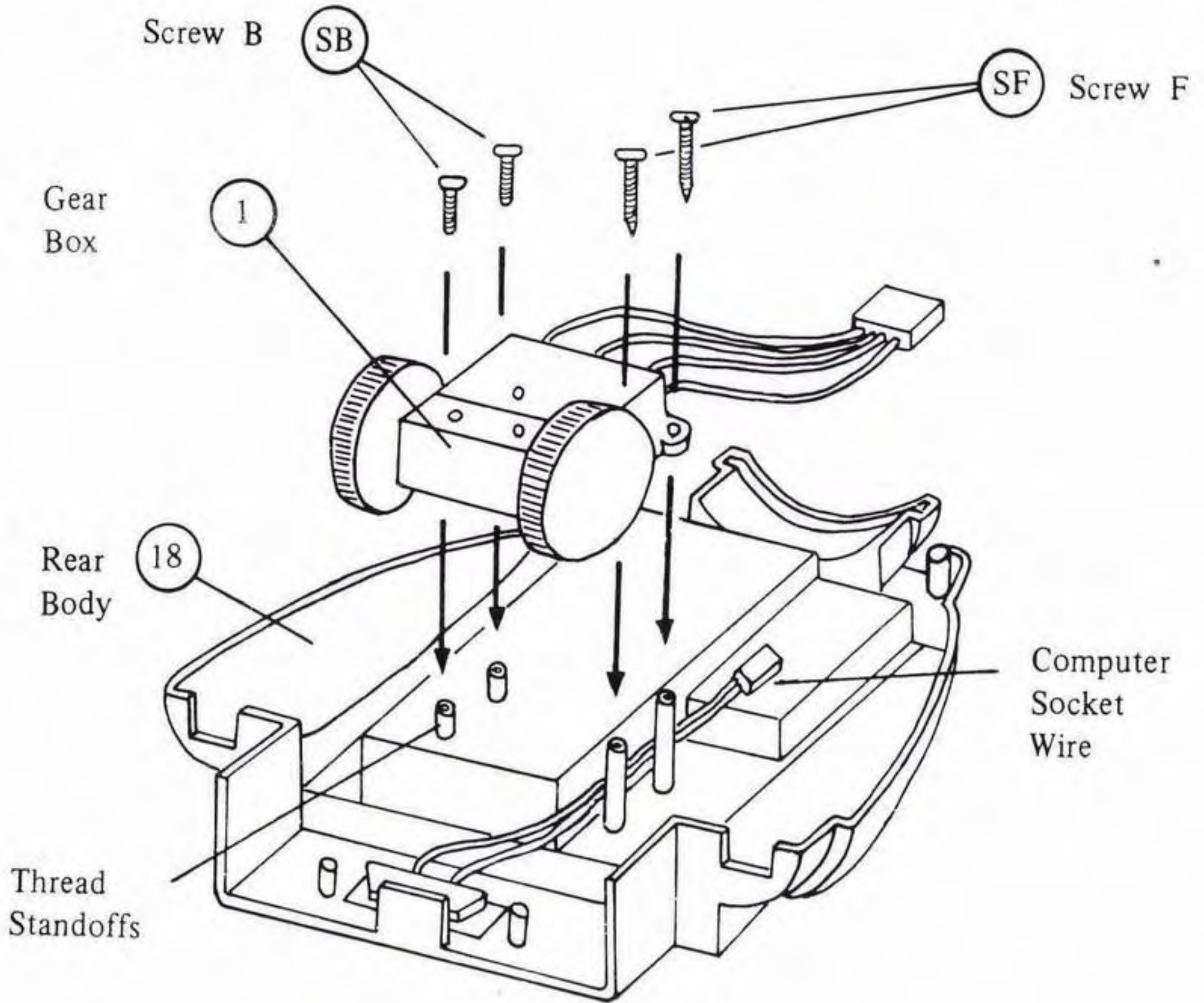




### 13. Gear Box

Mount gear box on four thread standoffs behind battery compartment, insert screws.

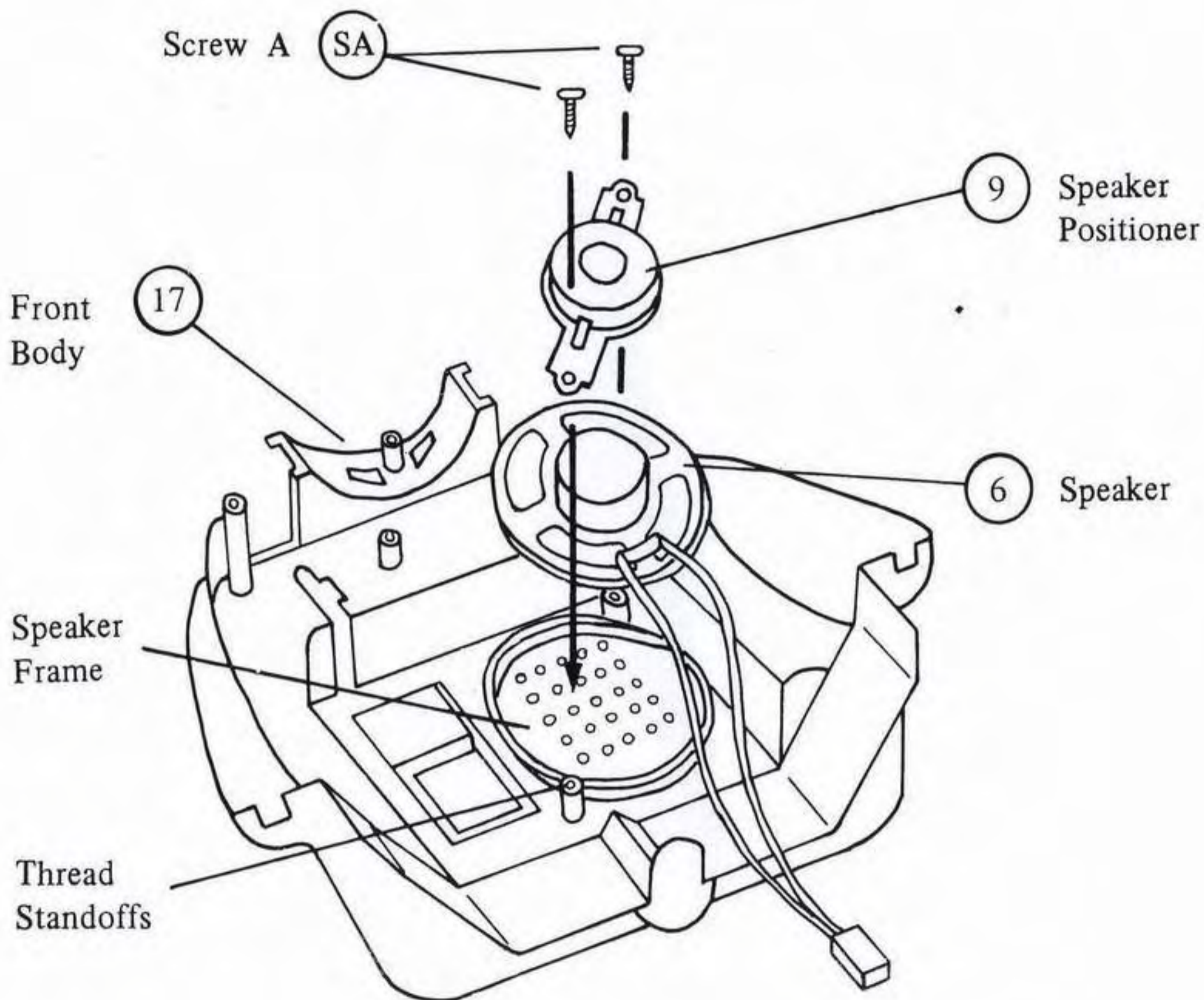
(Position computer socket wires as shown)



## D. ASSEMBLE FRONT BODY

### 14. Speaker & Positioner

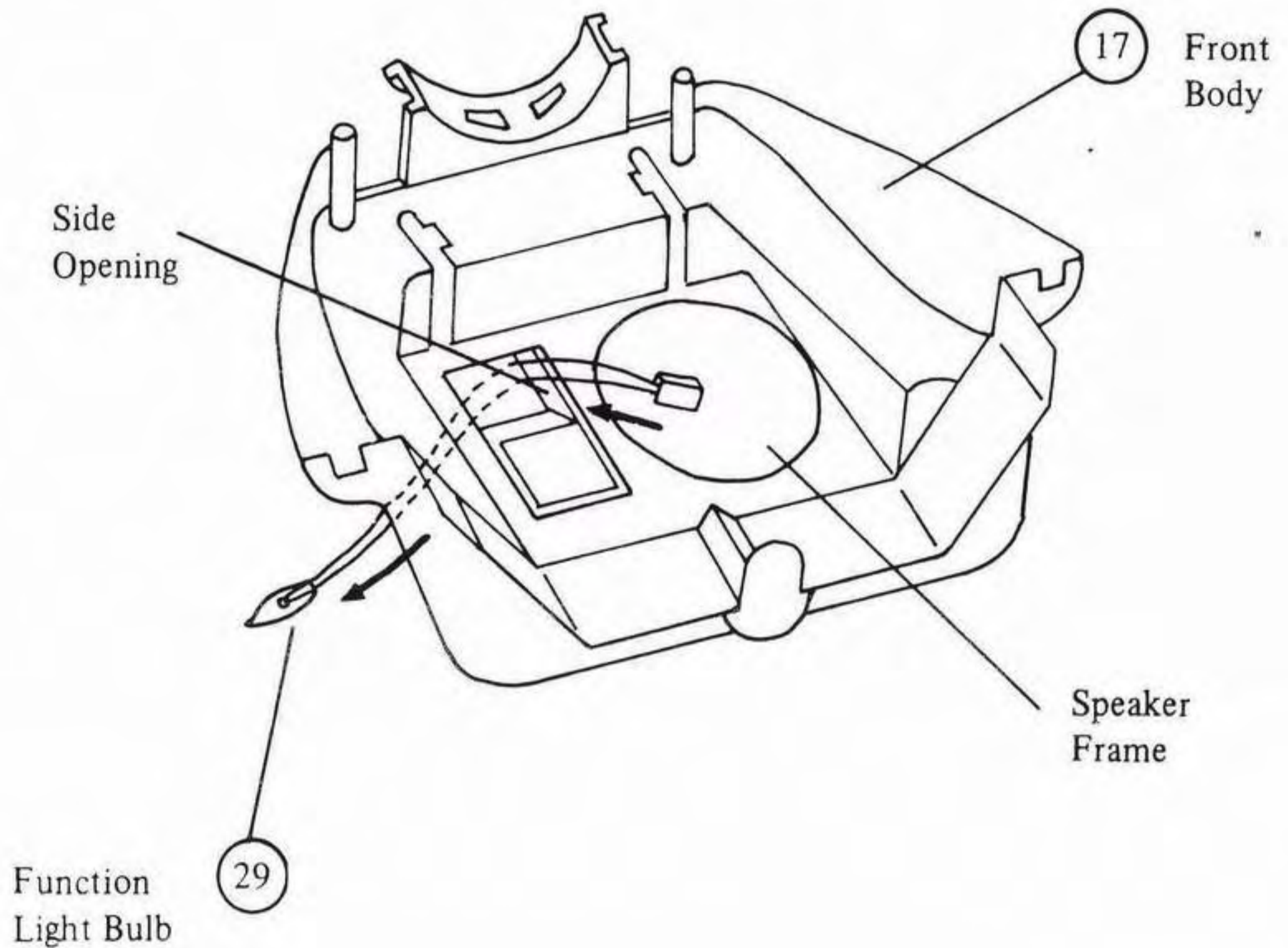
Mount speaker on speaker frame, place speaker positioner against speaker resting on thread standoffs, insert screws.





## 15. Function Light Bulb

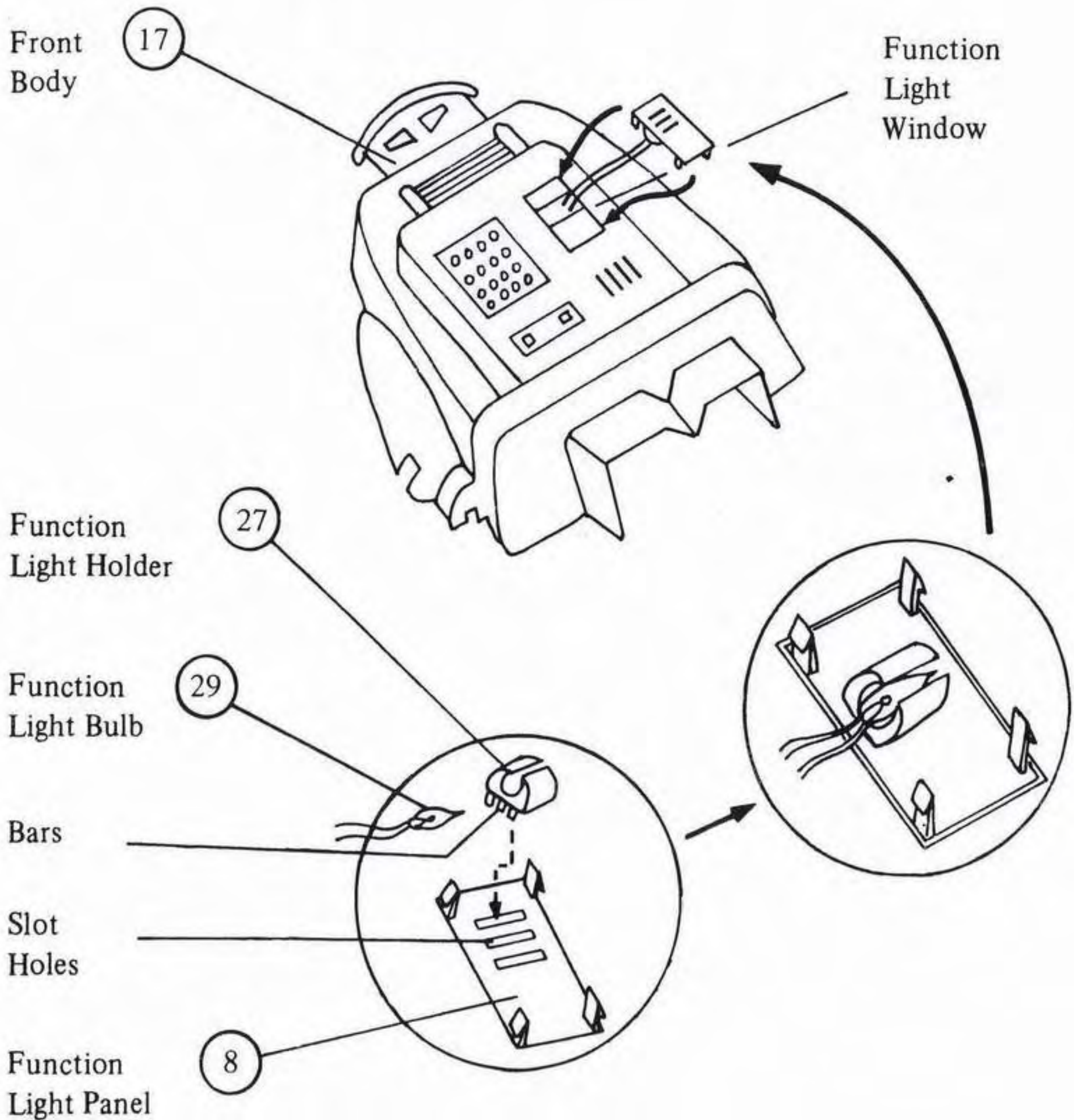
Pass function light bulb & wires through side opening next to speaker frame, and pull to outside of front body.





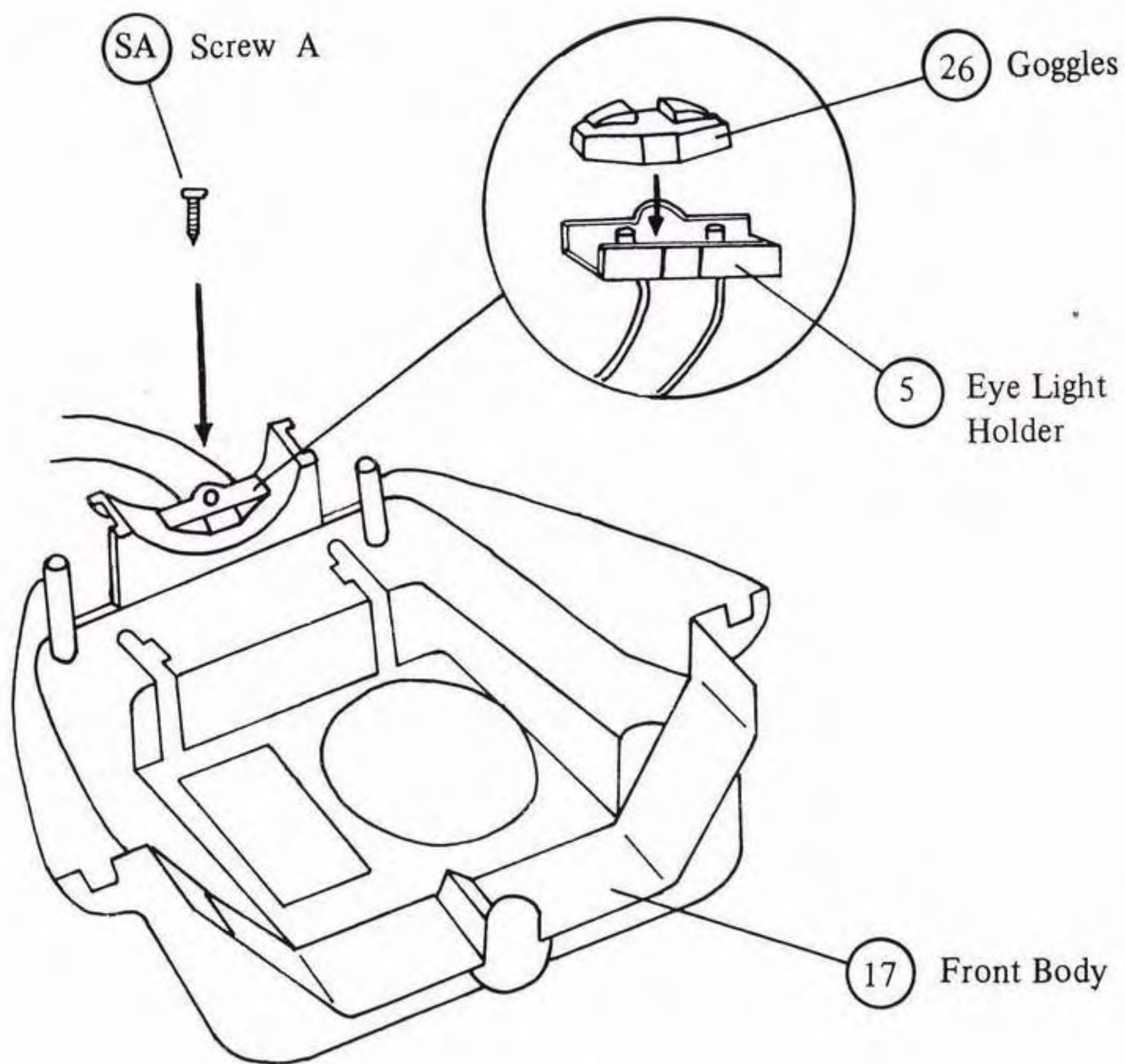
## 16. Function Light Panel

Push function light bulb into light holder, insert the bars on light holder into slot holes on function light panel. Snap panel unit into function light window.



## 17. Eye Light Holder

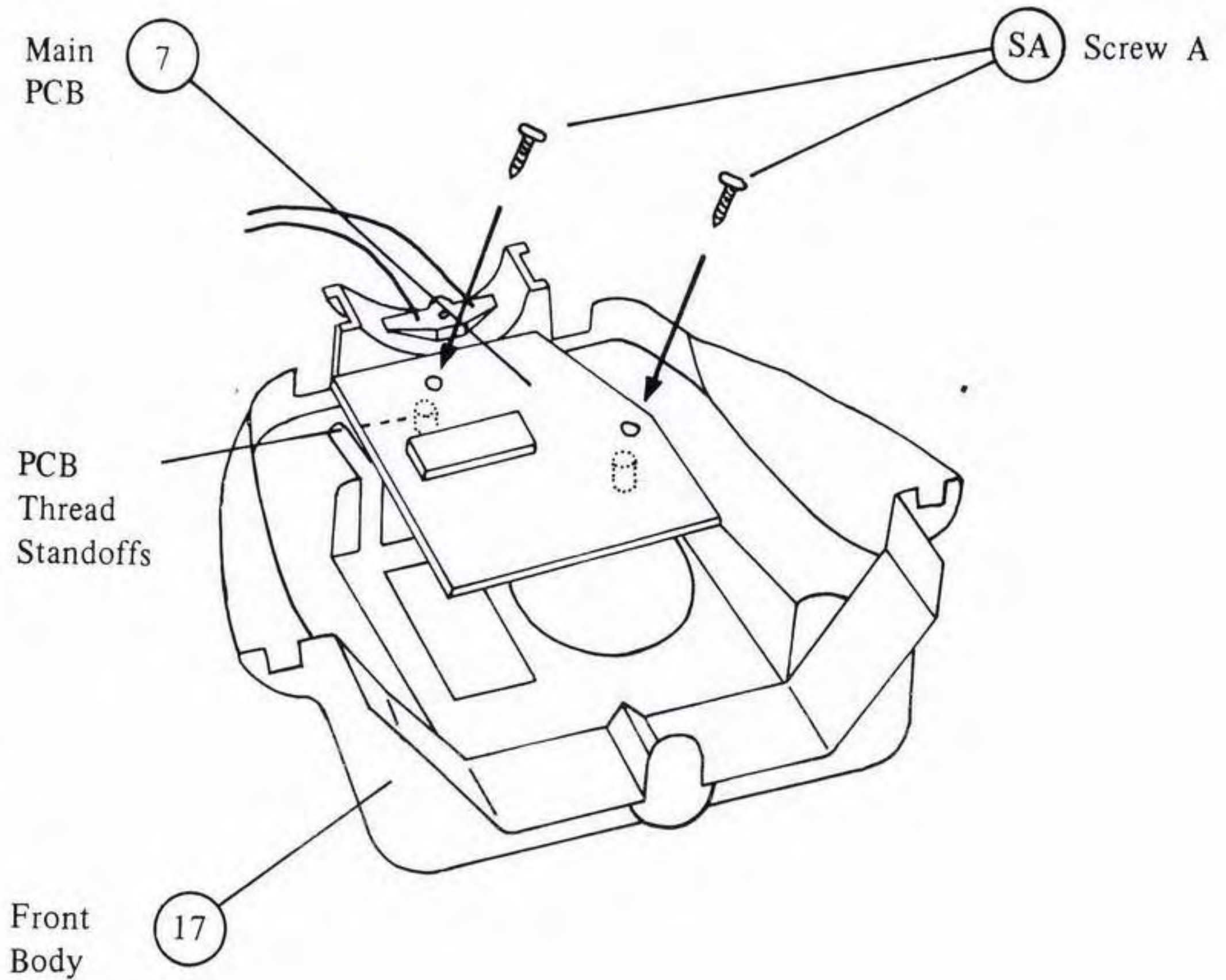
Attach goggles to eye light holder according to curvature, mount holder unit with goggles into the eye windows inside head portion of front body, insert screw.





## 18. Main PCB

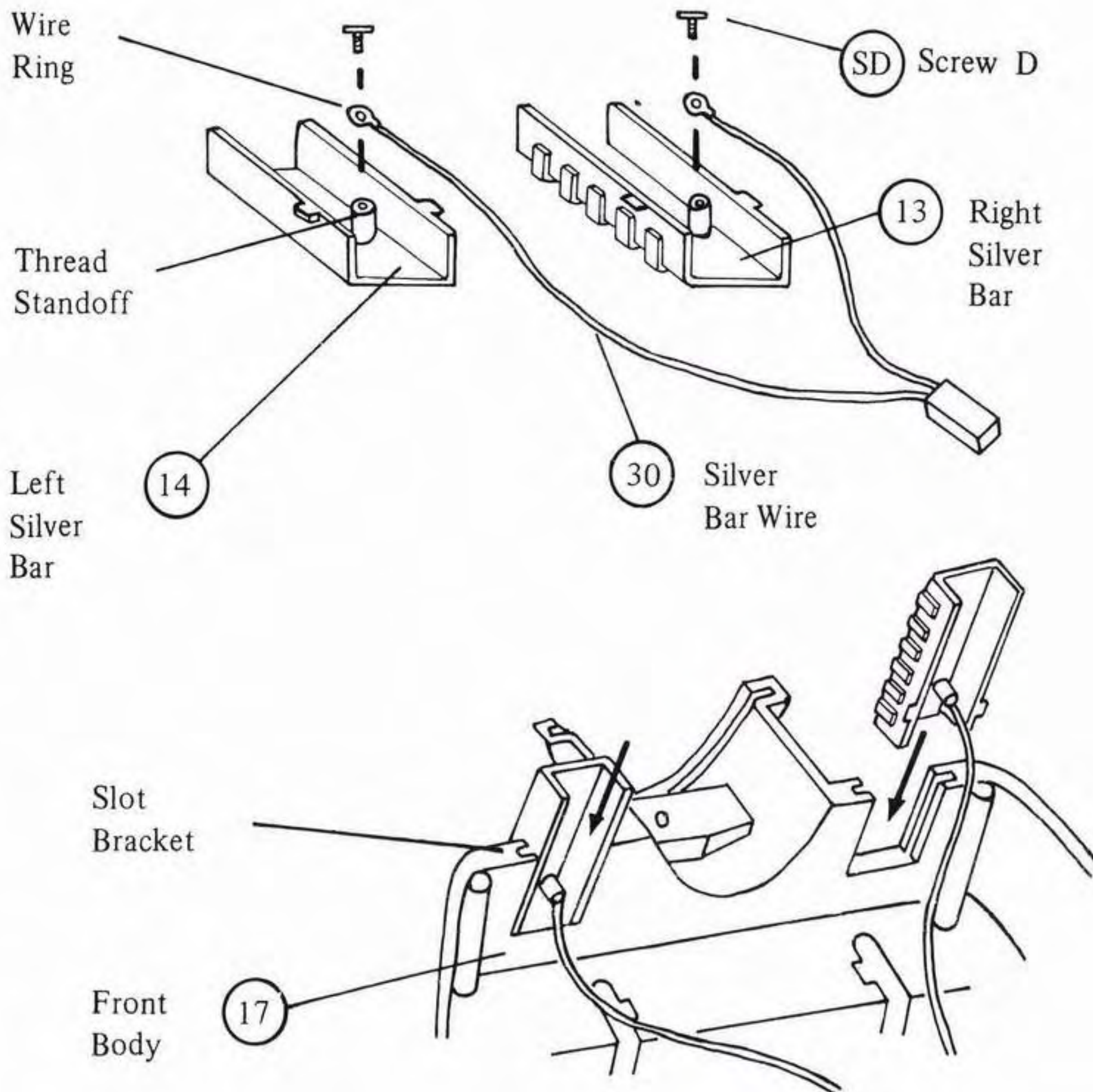
Place main PCB inside front body, move PCB mounting holes to meet PCB thread standoffs, insert screws.





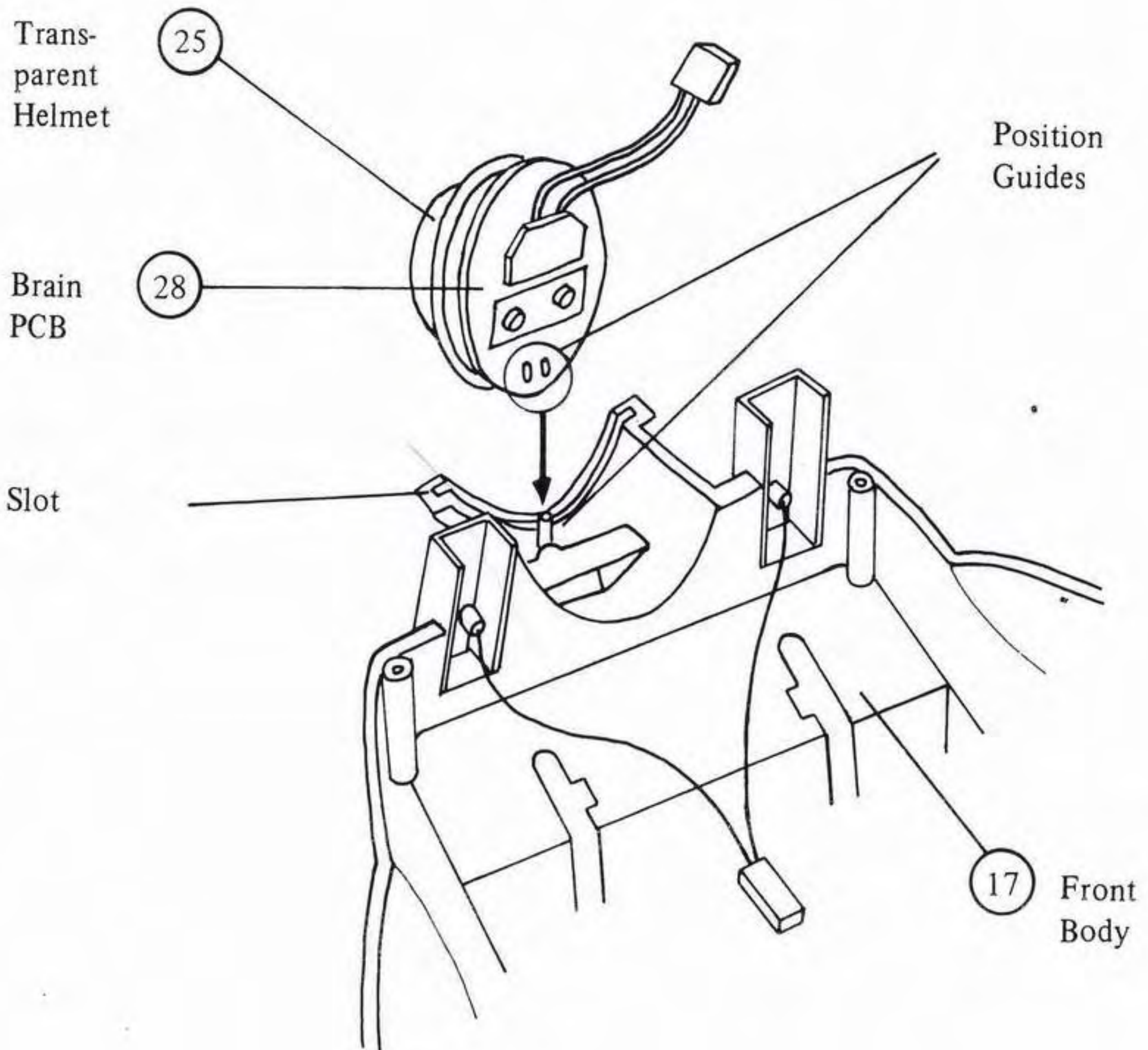
## 19. Silver Bars

Screw wire rings onto thread standoffs on left & right silver bars. Insert bars into slot brackets at shoulder portion of front body, as shown.



## 20. Helmet & Brain PCB

Put transparent helmet and brain PCB together as one unit, insert unit with position guides as shown into slot at head portion of front body.

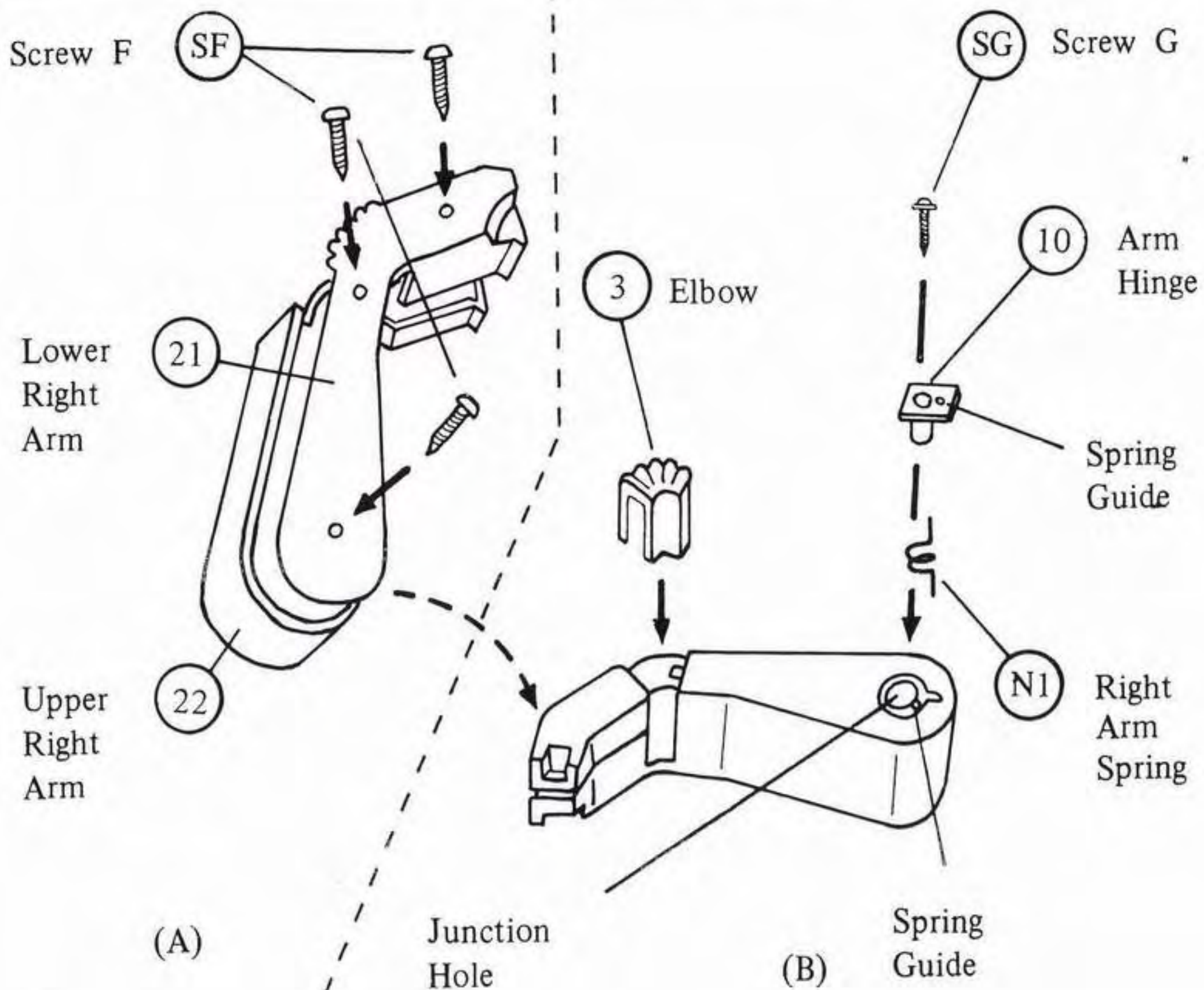




## E. ASSEMBLE THE ARMS

### 21. Right Arm Assembly

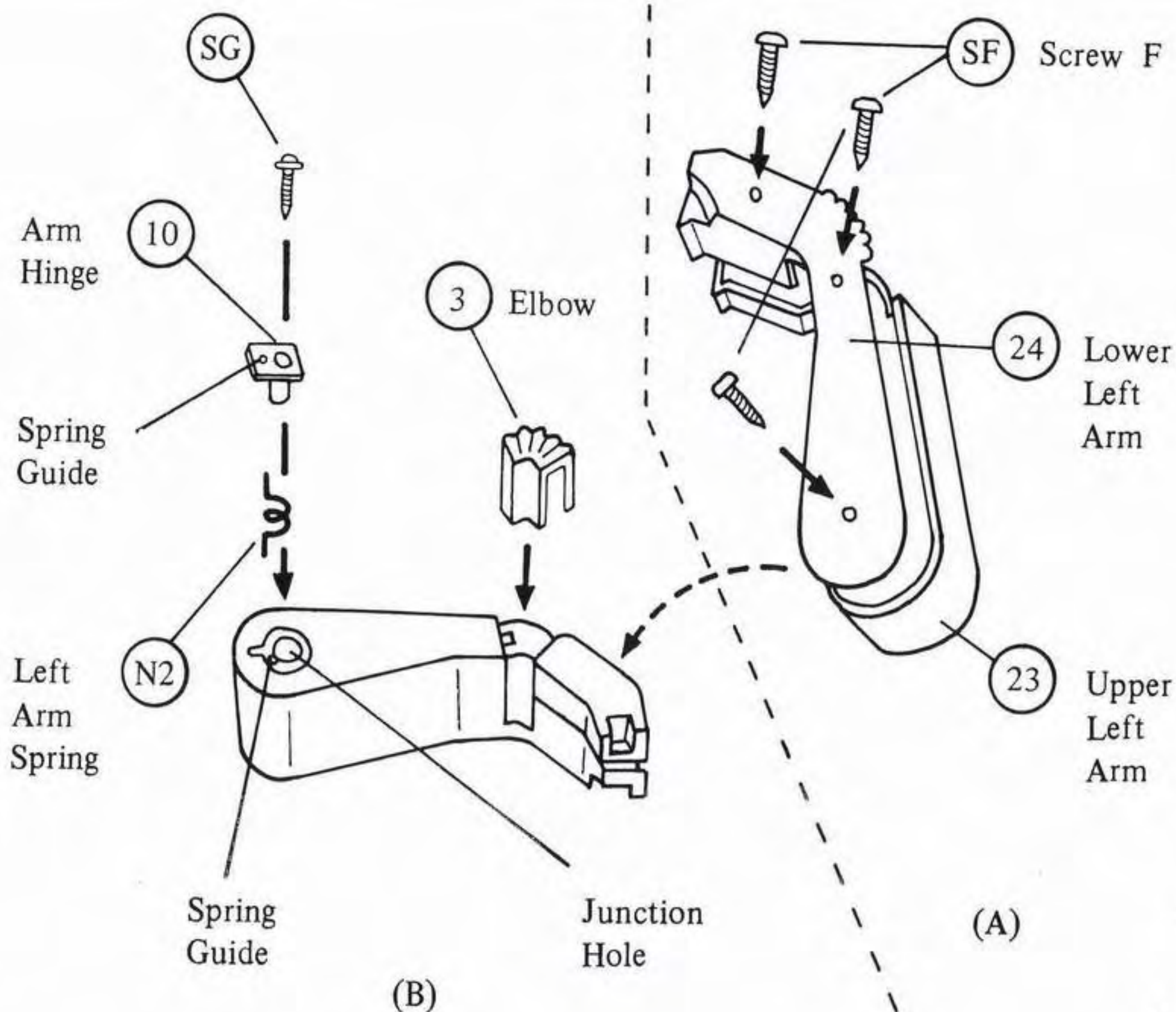
- (A) Snap lower and upper right arm together, insert screws.
- (B) Insert end of right arm spring into spring guide in junction hole. Position arm hinge on top of spring, again inserting end of spring into spring guide. Insert screw as shown. Snap elbow piece into position.





## 22. Left Arm Assembly

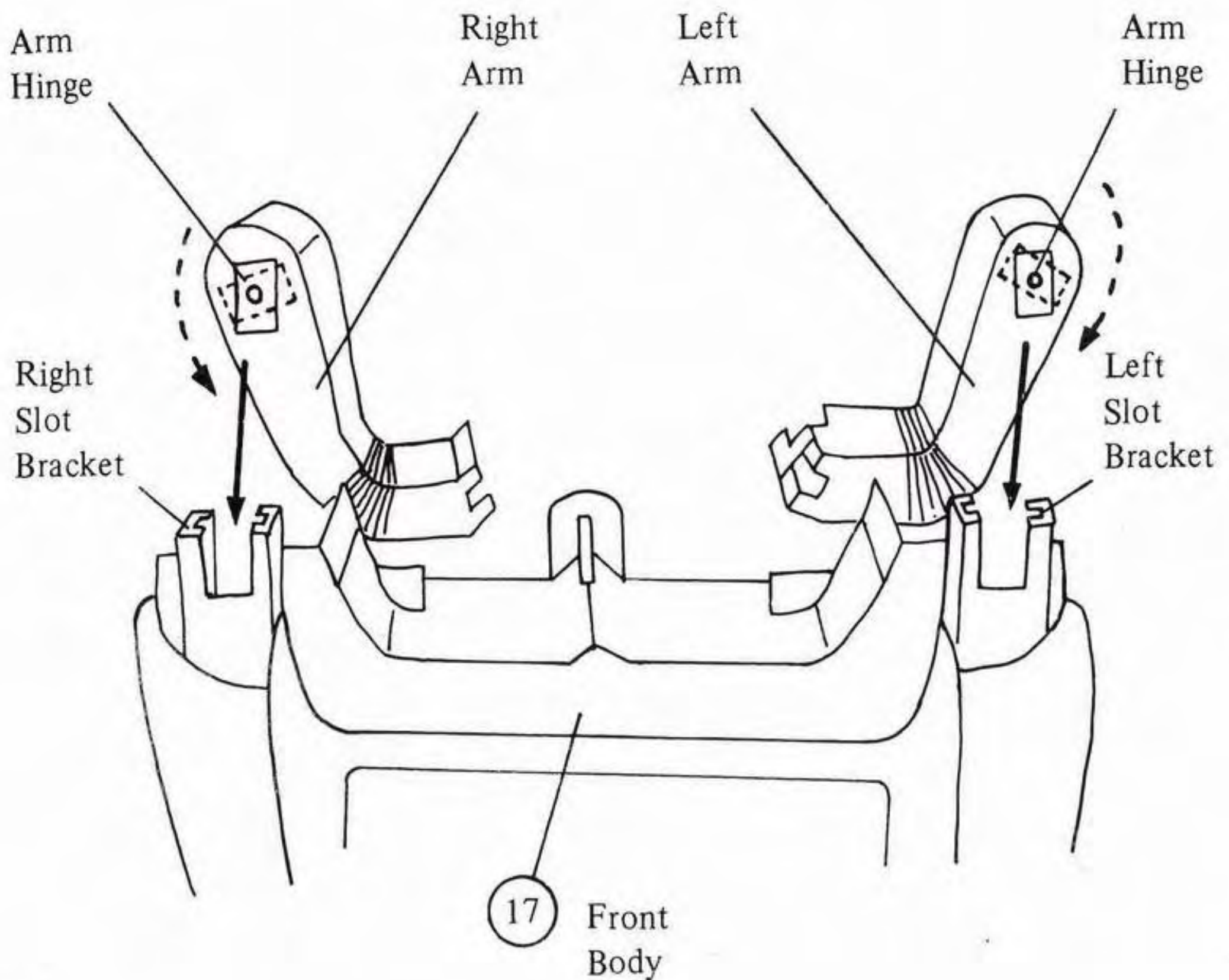
- (A) Snap lower and upper left arm together, insert screws.
- (B) Insert end of left arm spring into spring guide in junction hole. Position arm hinge on top of spring, again inserting end of spring into spring guide. Insert screw as shown. Snap elbow piece into position.



## 23. Arms Mounting

Twist arm hinge of right arm counter-clockwise perpendicular to right slot bracket, press arm hinge into bracket.

Twist arm hinge of left arm clockwise perpendicular to left slot bracket, press arm hinge into bracket.



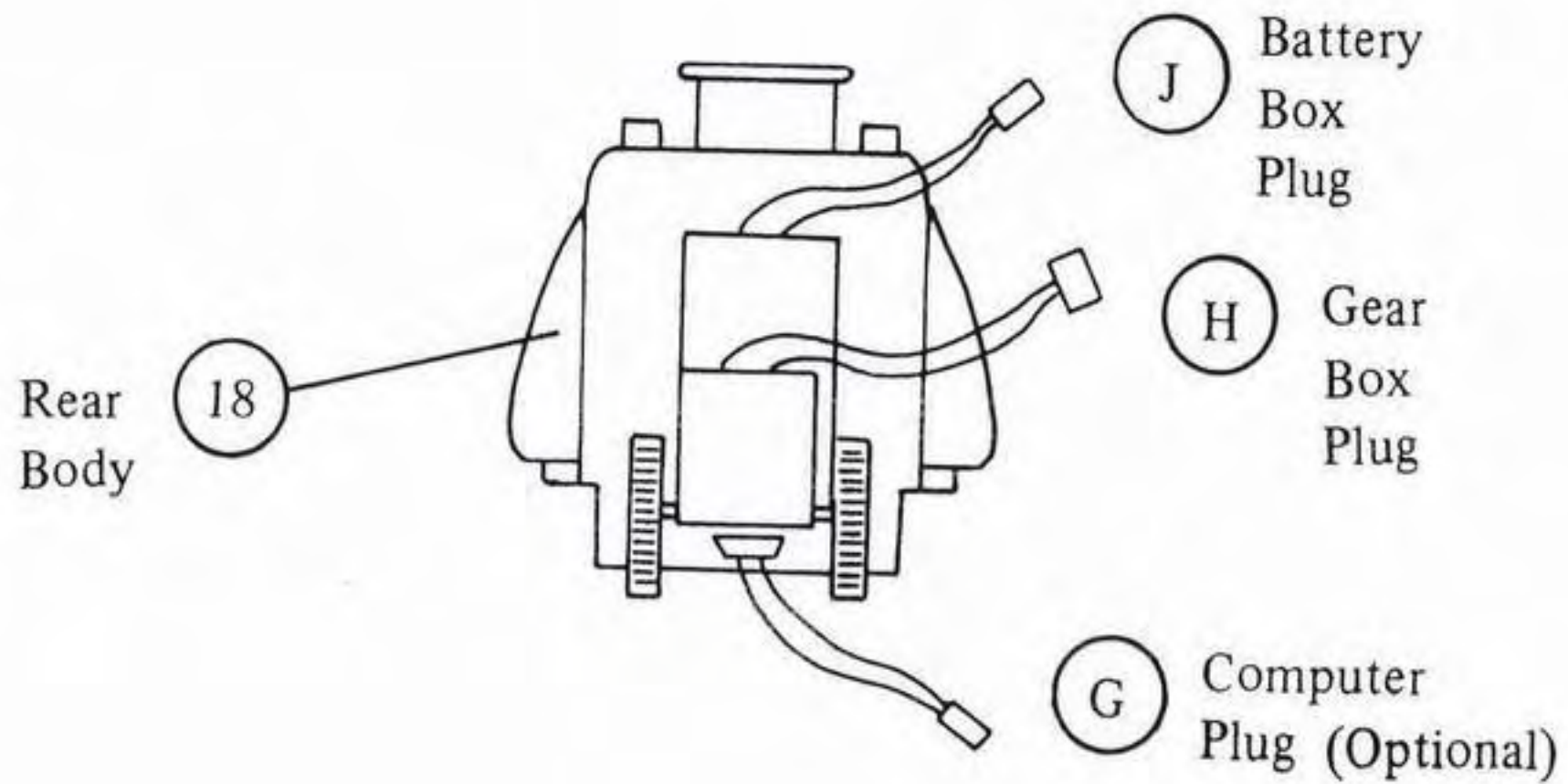
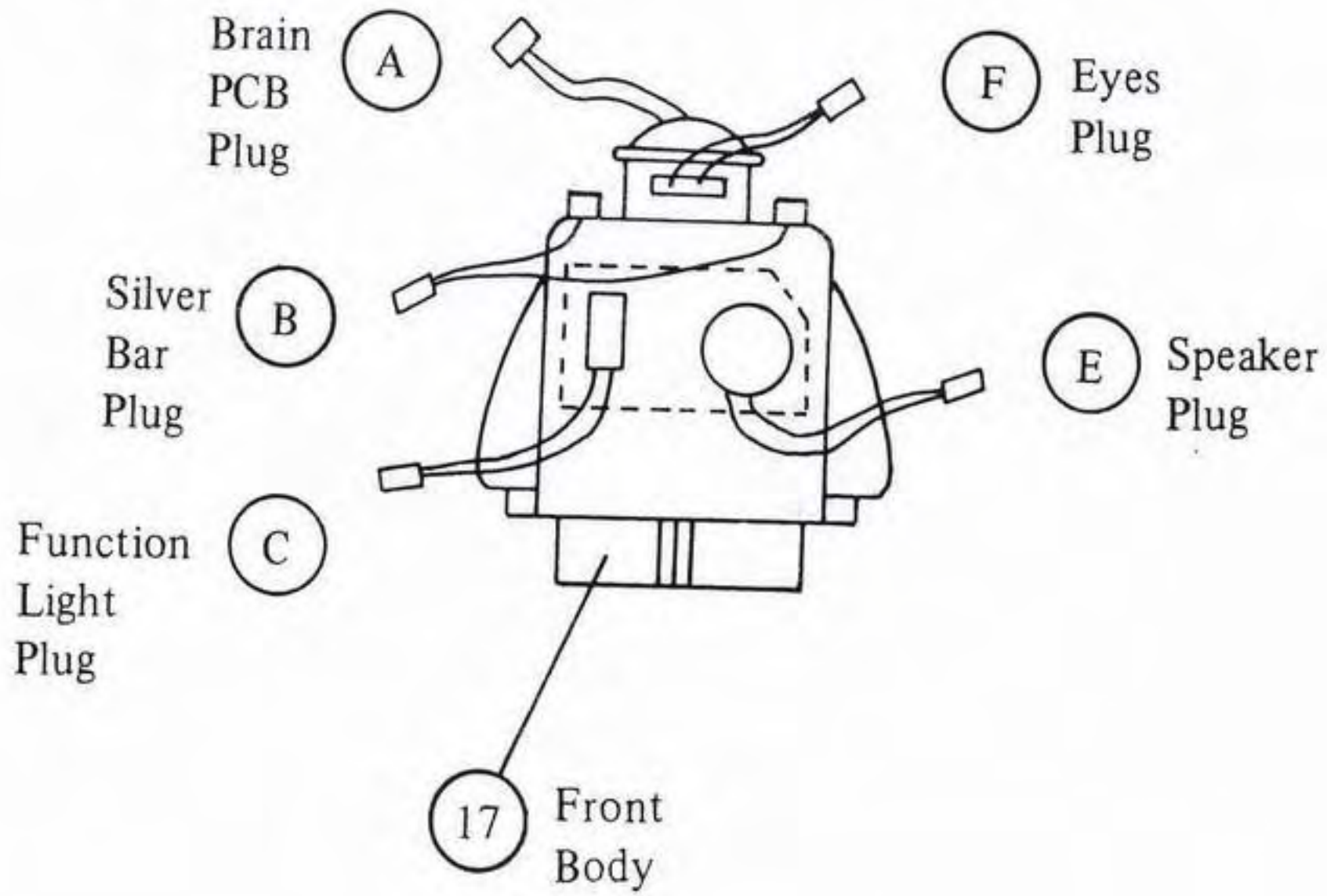


# F. CONNECT PLUGS & SOCKETS

## 24. Plugs & Sockets

Hold front and rear bodies vertically. Note that each plug is identified by a letter, i.e. Brain PCB plug is identified as

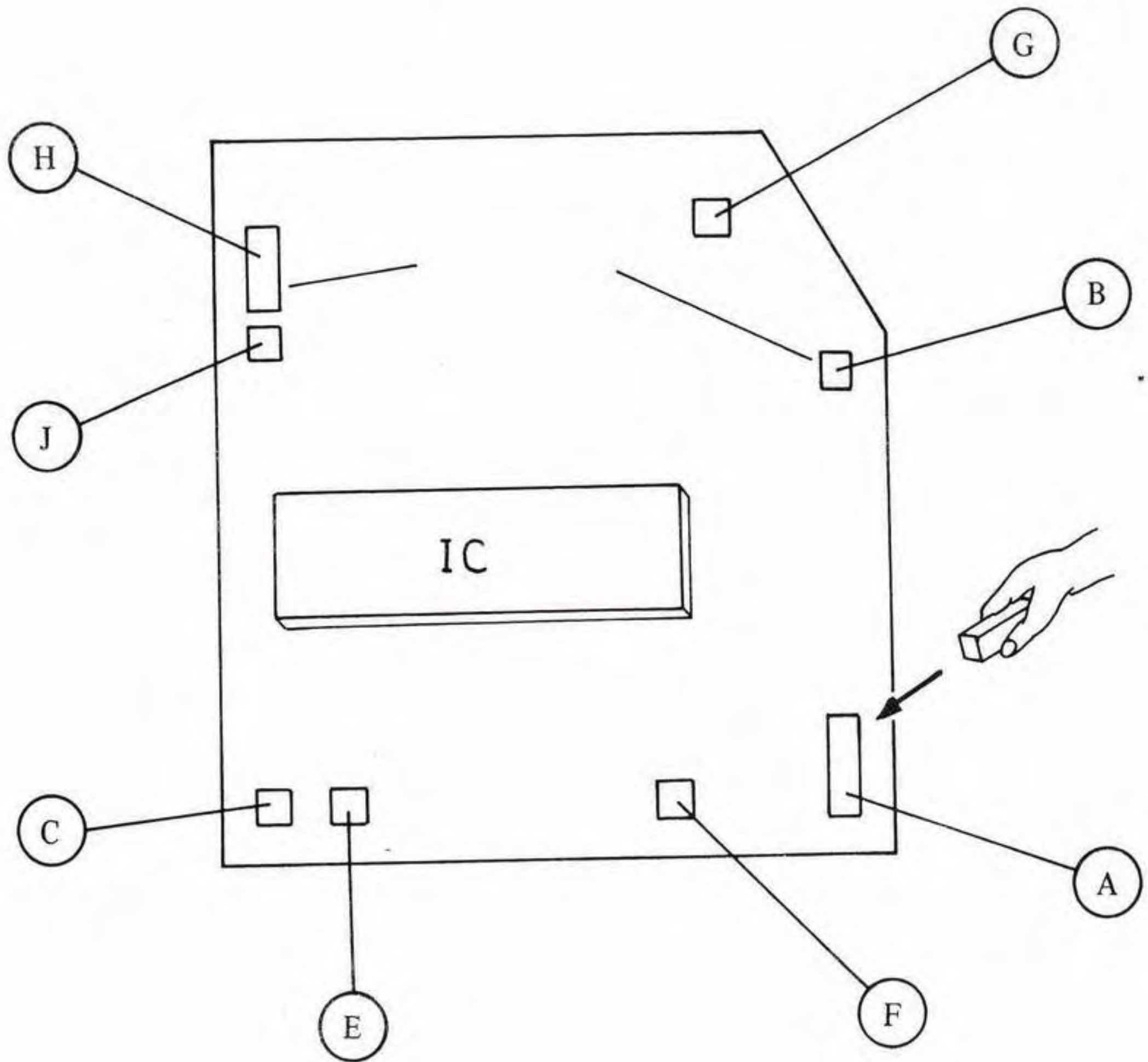
(A)





Connect plug (A) to socket (A) on main PCB, plug (B) to socket (B) etc., and so on.

MAKE SURE ALL PLUGS ARE CORRECTLY INSERTED BEFORE TESTING.

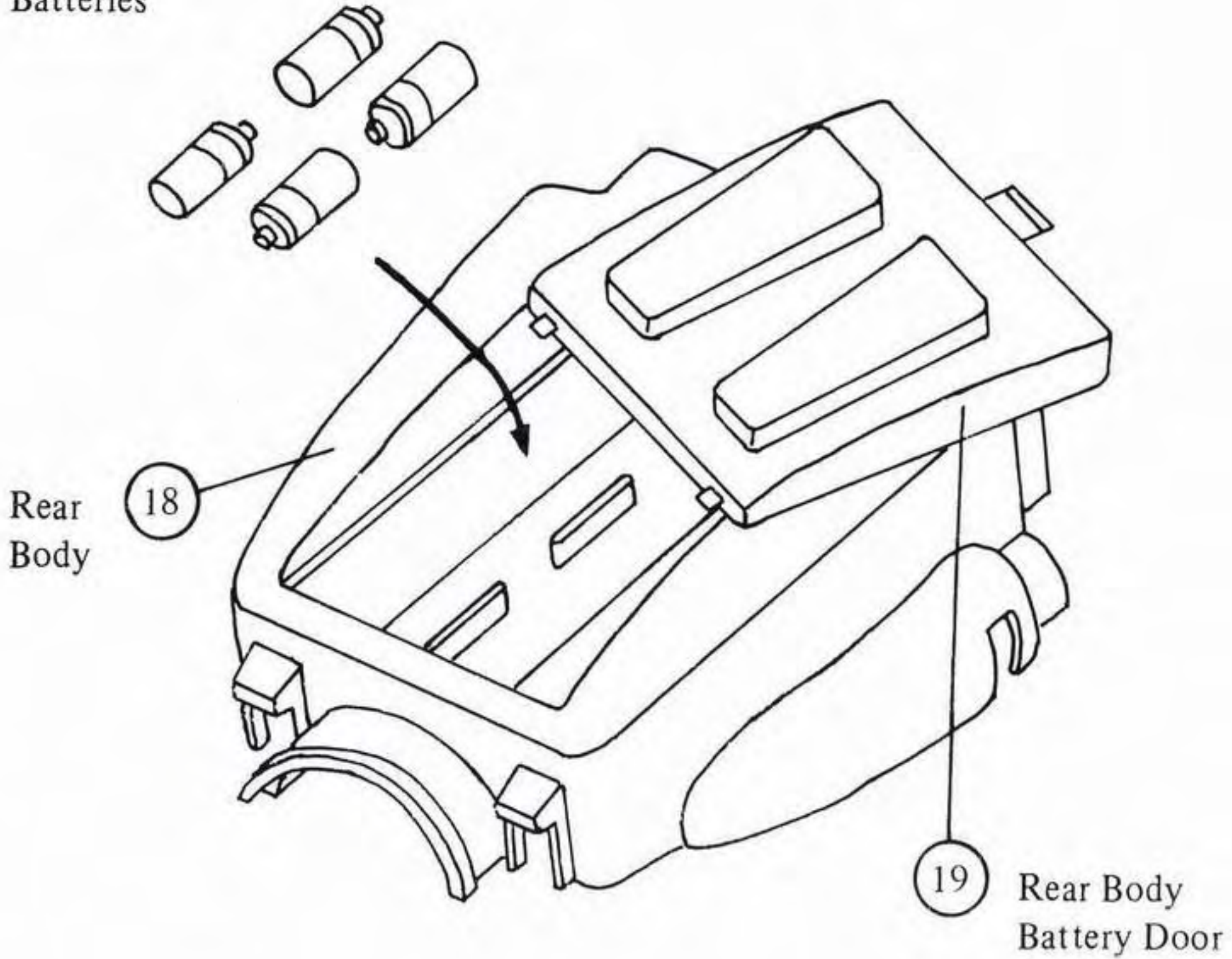


## G. TESTINGS

### 25. Batteries & Battery Door

Insert 4 pieces of UM-2 (size C, 1.5 volt) batteries into battery compartment according to (+) (-) signs, close battery door.

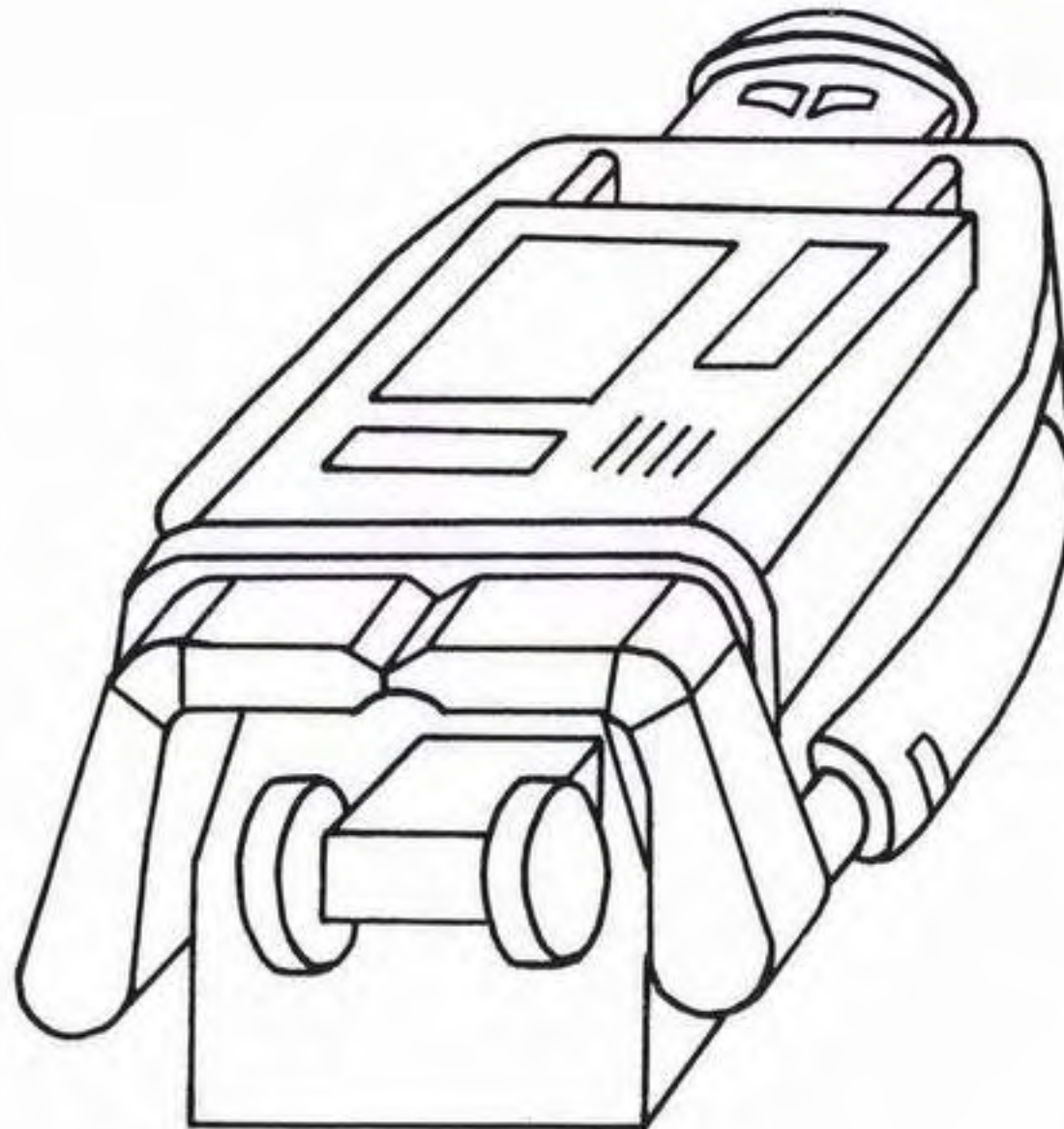
Batteries





## 26. INITIAL TEST

- 1) Insert 4 pieces of size C, 1.5 Volt batteries into the battery compartment of the rear cabinet according to (+) (-) sign, close battery door. Position the robot with the front cabinet facing upwards. Touch silver bars on both shoulders.



A) **RED LED SHOULD LIGHT UP** If not,

- a) check if any wires connecting LEDs are broken.
- b) checked if the LED socket is correctly plugged.
- c) check if any wires connecting the battery box are broken.
- d) check if the battery box socket is correctly plugged.
- e) check if batteries are correctly positioned.
- f) check if batteries and battery plates have good contacts.
- g) check if any wires connecting bath silver bars are broken.

If a) to g) are all O.K., the main P.C.B. or LEDs may be faulty.

B) **VOICE BOX SHOULD SOUND** If not,

- a) check if any wires connecting the speaker are broken.
- b) check if the speaker socket is properly plugged.


If a) to b) are all O.K., the main P.C.B. or the speaker may be faulty.

C) **FUNCTION LIGHT SHOULD FLASH** If not,

check if the function light socket is properly plugged.  
If O.K., the light bulb or the main P.C.B. may be faulty.

If A) to B) are all O.K., continue with test 2).




- 2) Press  FORWARD key on the remote controller.

**Wheels on gear box should move forward** If not,

- a) check if any wires connecting motors are broken.
- b) check if the gear box socket is correctly plugged.
- c) check if any wires connecting brain P.C.B. are broken.
- d) check if the brain P.C.B. socket is correctly plugged.

If a) to b) are all O.K., continue with test 3). Otherwise the brain or main P.C.B. may be faulty.

- 3) Press  RECEIVE key on the remote controller.

**The moving wheels from test 2) should stop and both**

**green headlights light up** (for robot with computer interface, one green and one yellow headlights should light up).

If not,

- a) check if any wire connecting headlights are broken.
- b) check if headlight socket is correctly plugged.

If a) to b) are all O.K., the headlights or main P.B.C. may be faulty.

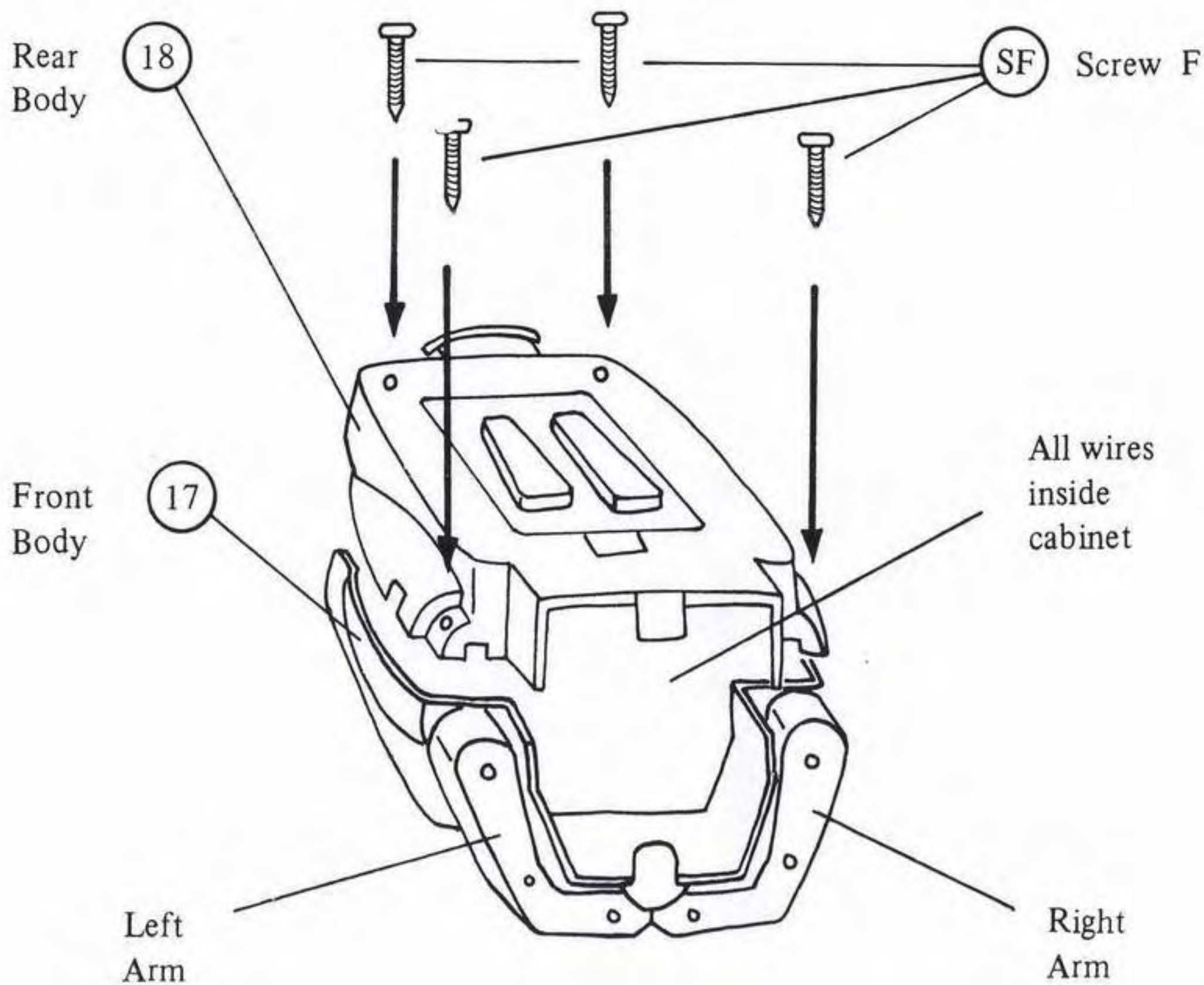
- 4) This test is only for robot with computer interface,
- a) check if wires soldered at the RS232 interface are broken.
  - b) check if the RS232 interface is correctly plugged.

If tests 1) to 4) are all O.K., continue your robot assembly. Otherwise consult your dealer.

## H. FINAL ASSEMBLY

### 27. Front & Rear Bodies

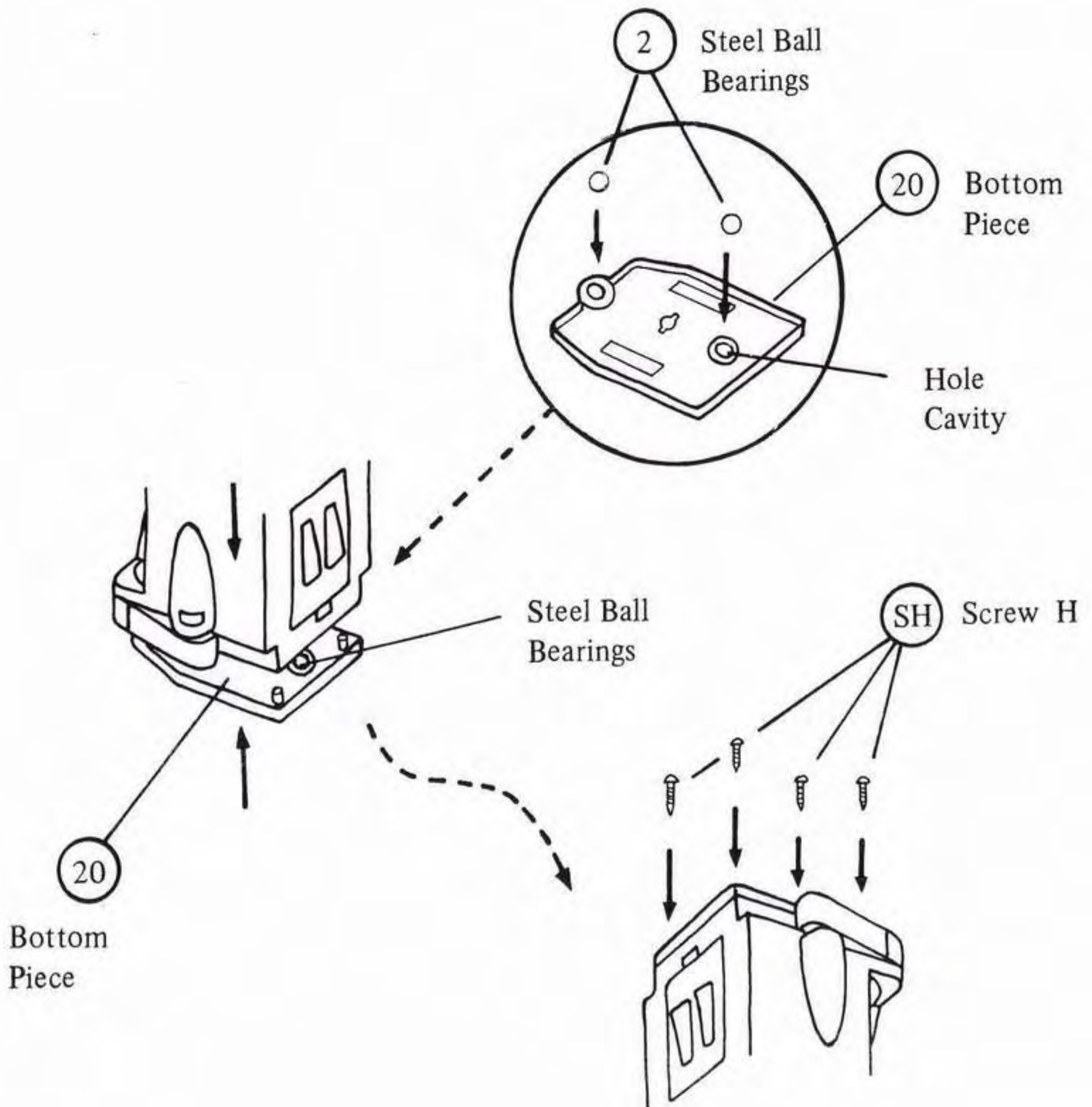
Snap front and rear bodies together, make sure no wires are jammed in joining gaps, insert screws.





## 28. Bottom Piece

Place the steel ball bearings into the hole cavities. Mount body unit on bottom piece, hold tightly together and turn upside down, insert screws.



## 29. External Parts

Peel off protective paper from voice box panel, adhere panel to voice box. Snap name plate into name plate window. Snap two sleeves into sleeve holes. Snap pen holder into center hole at bottom piece.

Assembly is complete

