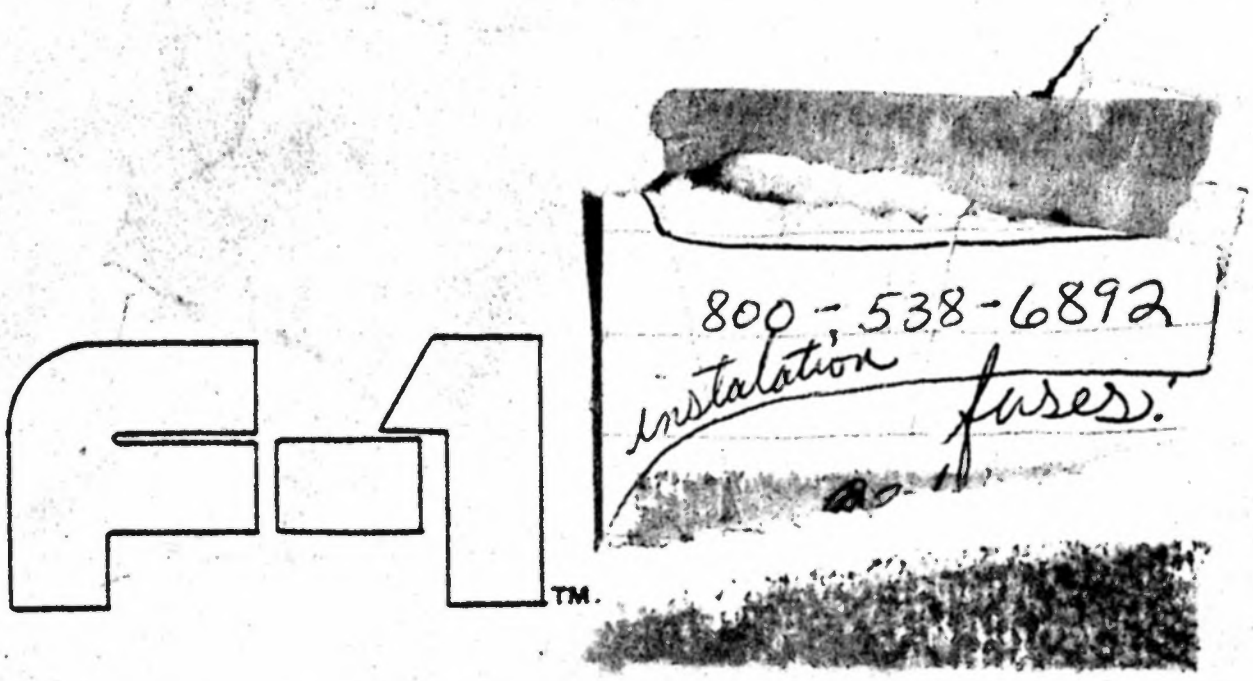


F-1™

Operation Maintenance Service Manual

(TM-088)

ATARI™

The technical manual for F-1™ was in progress when this game went into production. The manual will be released shortly and will be available through your distributor.

In the meantime, we have enclosed the most vital information, to assist in assembling, adjusting, and maintaining this game. Should you have any questions that cannot be answered by this documentation, please contact your distributor or the Atari Customer Service Department, 2175 Martin Avenue, Santa Clara, CA 95050. Atari's telephone number is (408) 984-1900. The Customer Service Department is open from 7:30 am to 4:30 pm Pacific time, Monday through Friday.

Thank you for your patience.

The Publications Group,
Engineering Department

ATARI INC.
1265 BORREGAS AVENUE
SUNNYVALE, CA 94086
408/734-5310 • TELEX 35-7488

QUESTIONS YOU MAY ASK ABOUT F-1

Minimum Floor Space?

48 inches wide by 89 inches deep
with vertical clearance of 71 inches

Electrical Power?

90 to 120 VAC, 200 watts

Has three-prong grounded plug

Warning

110 VAC IS WIRED DIRECTLY TO THE RACETRACK, CRASH, AND TIMER MOTORS AND TO THE LAMPS OF THE SCORE PANEL WITHIN THE ELECTRONICS CABINET ASSEMBLY. TO PREVENT THE HAZARD OF ELECTRICAL SCHOCK, UNPLUG F-1 BEFORE HANDLING ANY OF THE LAMPS ON THE SCORE PANEL OR BEFORE HANDLING ANY OF THE MOTORS.

What are Speeds of F-1?

Equivalent to top speed of 190 MPH.

Cost of Game?

F-1 is shipped to you as a two coin (50-cent) game.
It may be changed to a one coin game
by removing CONT 1 PCB and setting
switch to 100 for one coin (25-cent)
game or 200 for a two coin (50-cent)
game.

Lenth of Game Play?

F-1 is shipped to you as a 65 second game.
See Table 4-1 for information to change F-1
game time to 85 seconds.

Extended Play?

Awarded only once for score of 3000 of more.

I. UNPACKING AND INVENTORYING F-1

Unpack all parts of F-1 from the three shipping containers. Inventory the parts by matching with Table 1-1 and Figure 1-1. If any parts appear damaged, contact your distributor immediately.

Table 1-1 Inventory of F-1

#	Qty.	Item Name	Item Description
1	1	Electronics Cabinet Assembly	Large black cabinet.
2	1	Hood Main Support	Metal U-shaped bar.
3	2	Top Hood Support	Metal flat-topped bar with one end rounded and threaded.
4	2	Top Hood Support Attachment	Flat metal strip with four holes.
5	1	Hood Top	Plastic hood top panel.
6	2	Hood Sides	Left and right hood side panels.
7	1	Car Chassis	Race-car-like fiberglass car body.
8	1	Seat	Fiberglass car seat.
9	1	Steering Wheel	Racing steering wheel.
10	1	Sticky-Backed-Metal Disc	Metal disc with protective paper adhered to both sides.
11	4	Keys	Two sets of tubular security-type keys.
12	30	Machine Screws	Assorted sizes as follows; (10) #8-32x1/2 pan head, (4) #10-32x1 hex head, (10) 1/4-20x1/2 hex head, (2) 1/4-20x3/4 socket head (4), 5/16-24x3/4 hex head.
13	20	Split Lock Washers	Assorted sizes as follows; (2) #8, (2) #10, (12) 1/4, (4) 5/16.
14	6	Hex Nuts	Assorted sizes as follows; (4) #10-32, (2) 3/8-16.
15	3	Hex Wrenches	Three different metric sizes.
16	1	Projector Lamp	Spare projector lamp.

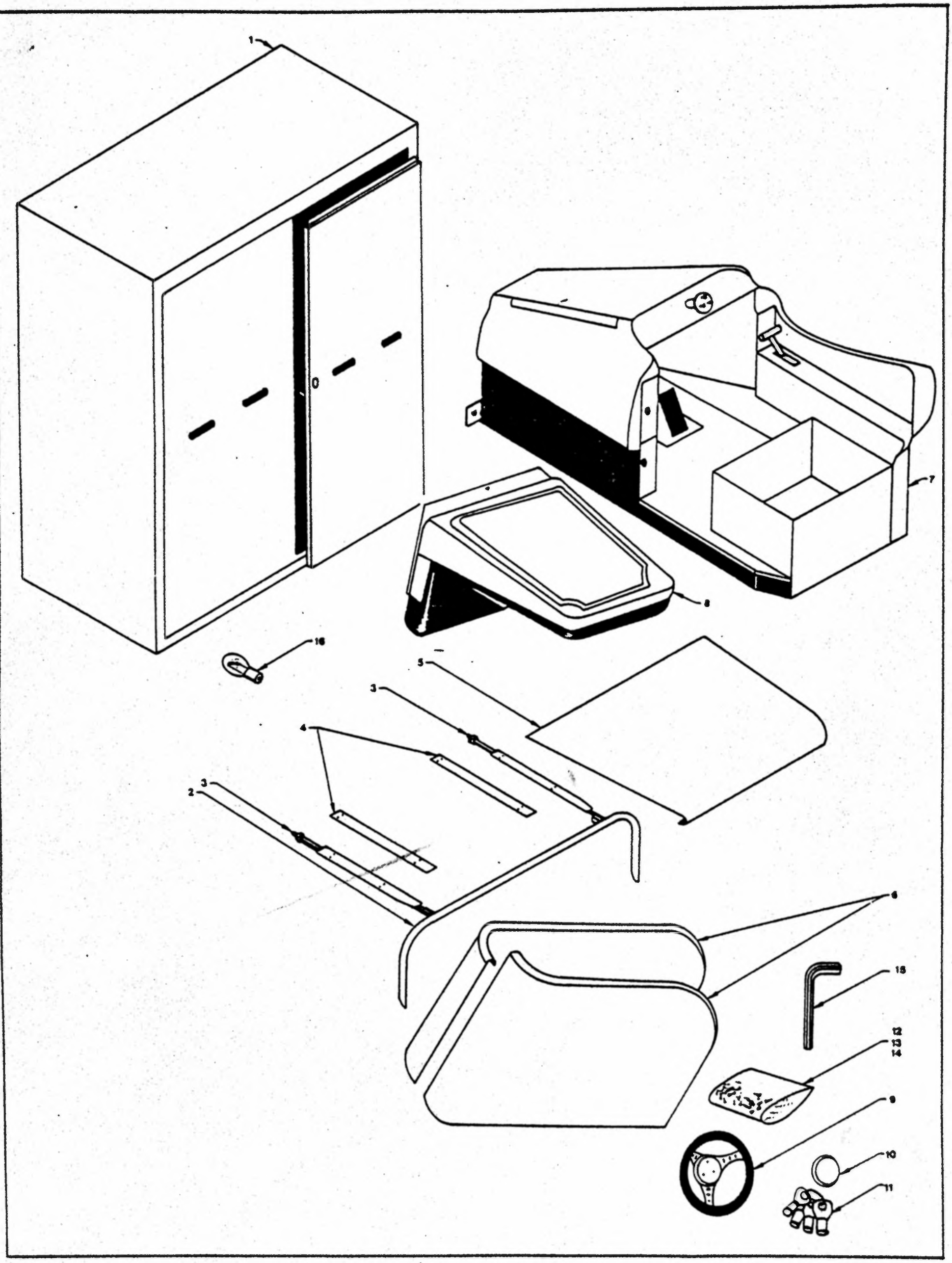
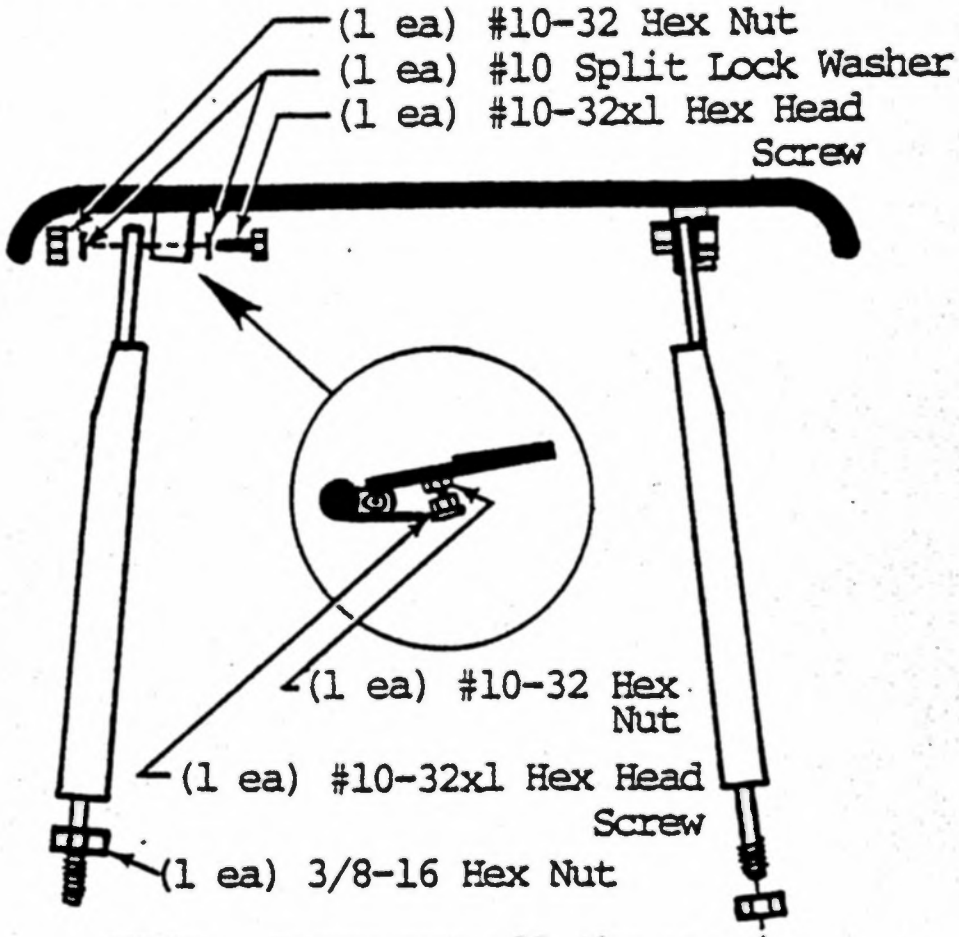


Figure 1-1 Inventory of Parts

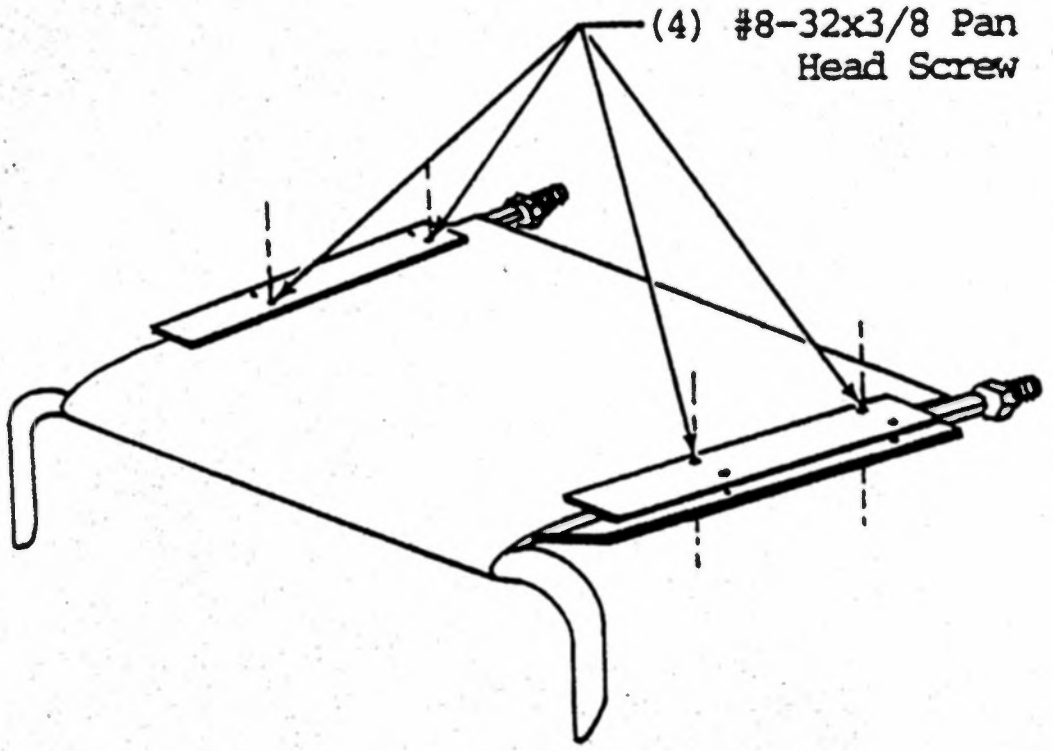
II. ASSEMBLY

Step **1** ATTACH LEFT AND RIGHT TOP HOOD SUPPORTS TO MAIN HOOD SUPPORT

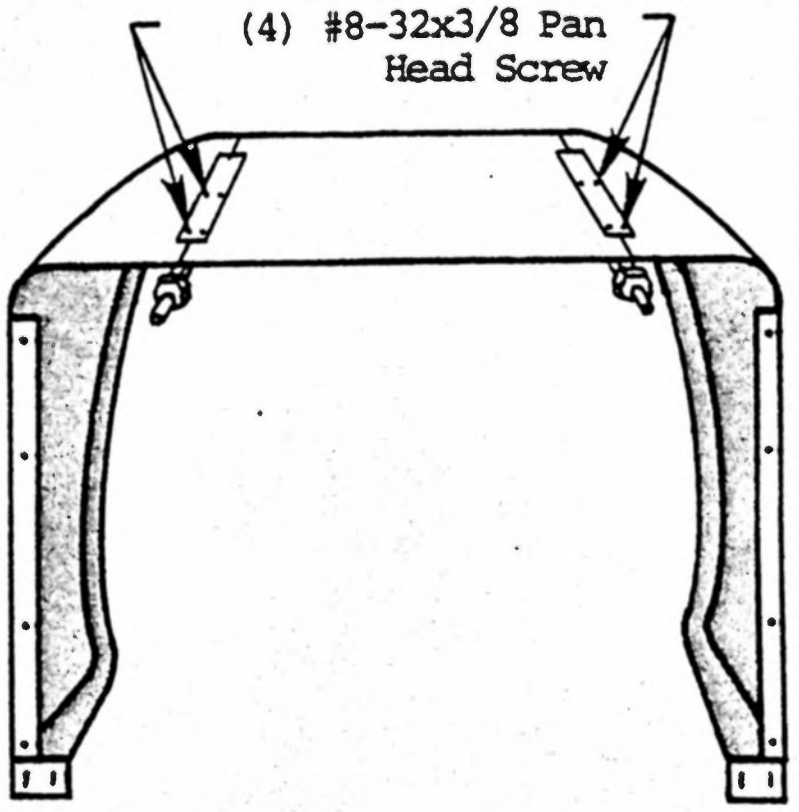


NOTE: Screw nut all the way onto Top Hood Support

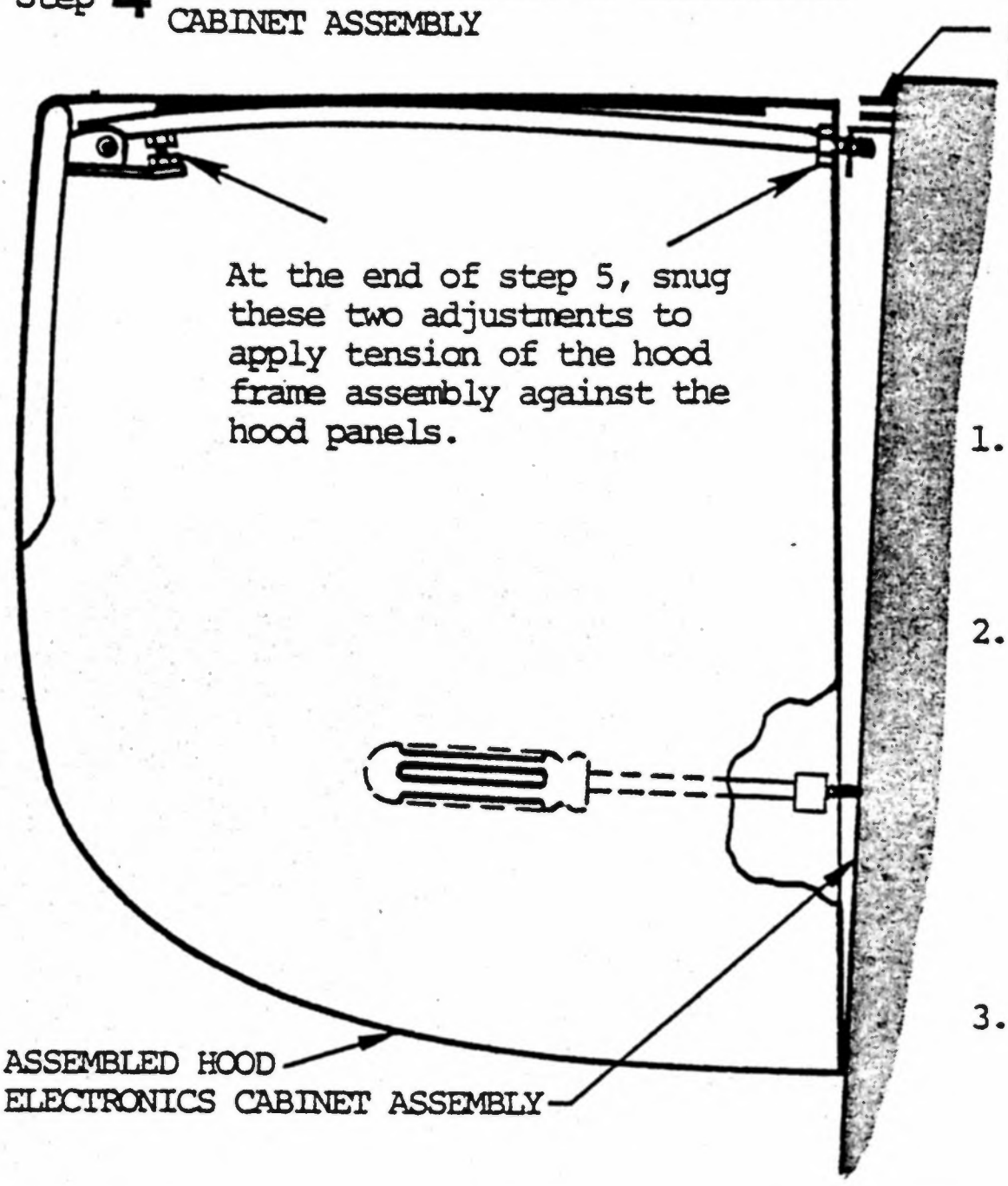
Step **2** ATTACH TOP HOOD PANEL TO ASSEMBLY OF STEP 1



Step **3** JOIN TOGETHER ASSEMBLIES OF STEP 1 TO ASSEMBLY OF STEP 2



Step 4 ATTACH HOOD ASSEMBLY TO ELECTRONICS CABINET ASSEMBLY



1. Insert threaded end of both top hood supports into holes of bracket along top front edge of Electronics Cabinet Assembly.

2. Insert one 1/4-20x1/2 hex head screw and one 1/4-inch split lock washer into second hole from bottom of each hood side panel. Match screw holes in hood side panels with appropriate holes in Electronics Cabinet Assembly. Just barely start each screw.

3. Slowly tighten screw on each side of hood assembly while manuvering hood panels into slot across the top of the Electronics Cabinet Assembly.

Step 5 ATTACH REMAINING SCREWS

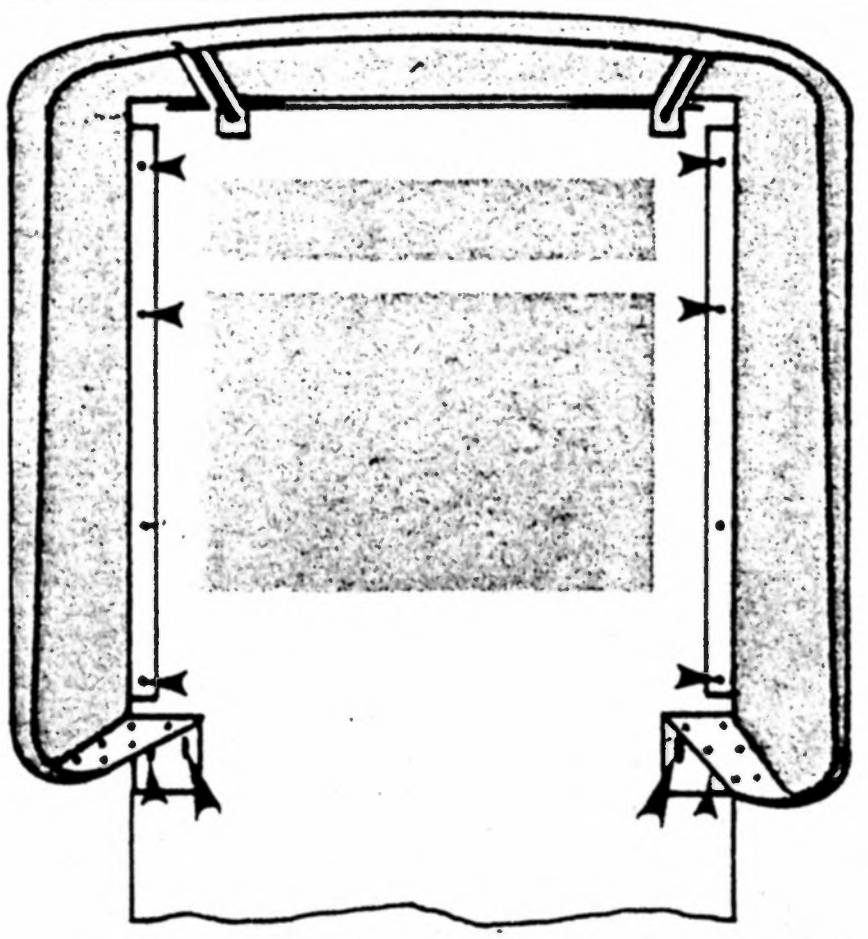
1. Insert and tighten six 1/4-20x1/2 hex head screws and 1/4-inch flat washers in remaining holes of the hood side panels.

2. Insert and tighten one 1/4-20x1/2 hex head screws and 1/4-inch split lock washer

ATTACH REMAINING SCREWS

1. Insert and tighten six 1/4-20x1/2 hex head screws and 1/4-inch split lock washers in remaining holes of the hood side panels.

2. Insert and tighten one 1/4-20x1/2 hex head screw and 1/4-inch split lock washer into outside holes of "L" brackets located at the bottom of each hood side panel. Insert and tighten one #8-32x1/2 pan head screw and #8-32 split lock washer into inside holes of each hood side panel "L" bracket.



3. As illustrated in step 4, snug adjustment screws and nuts to apply tension of the hood frame assembly against the hood panels.

Step 6

ATTACH CAR CHASSIS TO ELECTRONICS CABINET ASSEMBLY

1. Align car chassis with centerline of Electronics Cabinet Assembly.

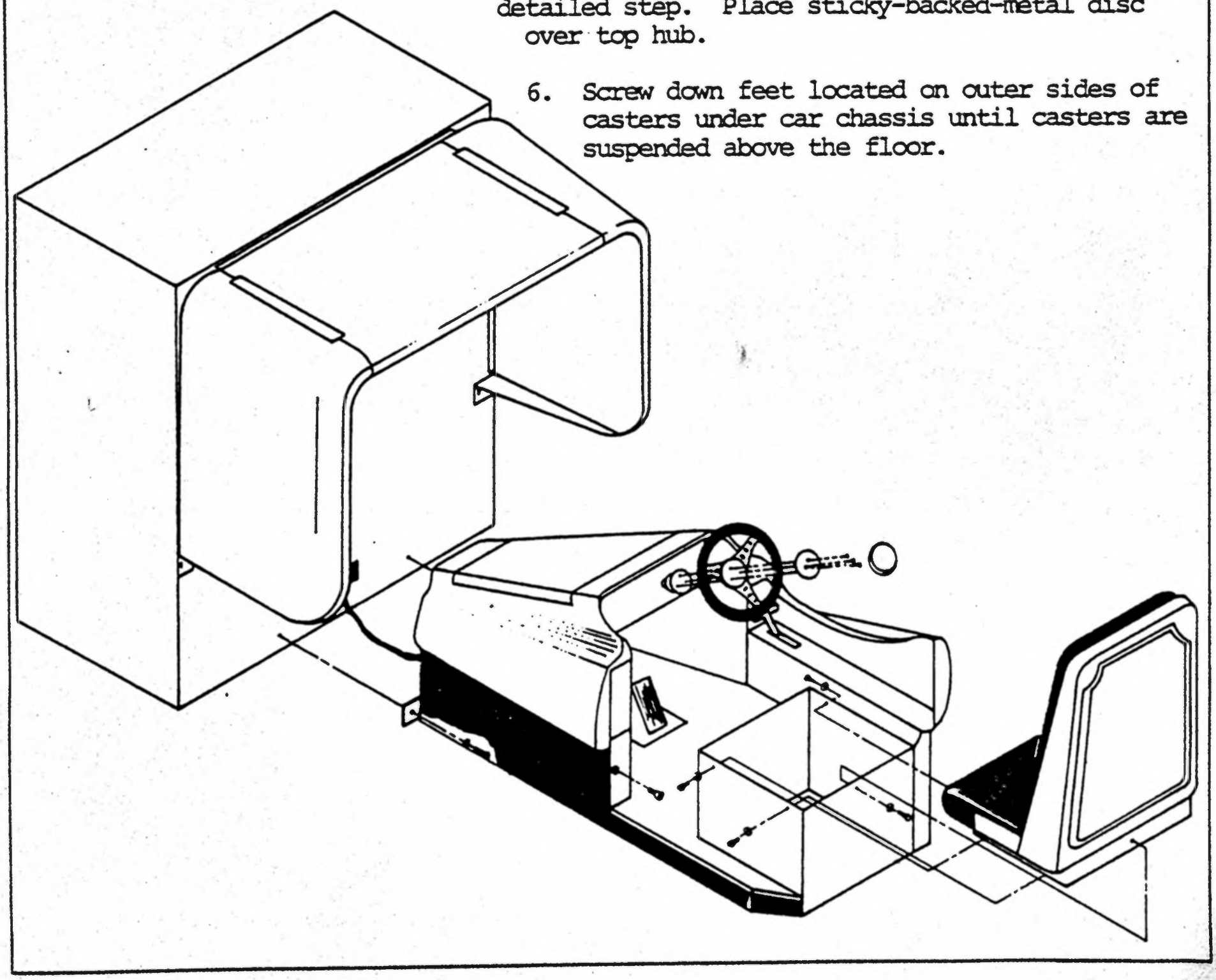
2. Reach into front of car chassis and pull out flex steering cable and black harness wire with connector on one end. Pass both flex steering cable and connector of black harness wire through hole in front center bottom of the Electronics Cabinet Assembly.

3. Attach car chassis to the Electronics Cabinet Assembly with two 1/4-20x3/4 socket head screws and 1/4-inch split lock washers.

4. Attach seat to car chassis with four 5/16-24x3/4 hex head screws and four 5/16-inch split lock washers.

5. With metric hex wrench provided, remove four socket head screws on steering hub. Sandwich steering wheel between two hubs and attach with same screws of this detailed step. Place sticky-backed-metal disc over top hub.

6. Screw down feet located on outer sides of casters under car chassis until casters are suspended above the floor.

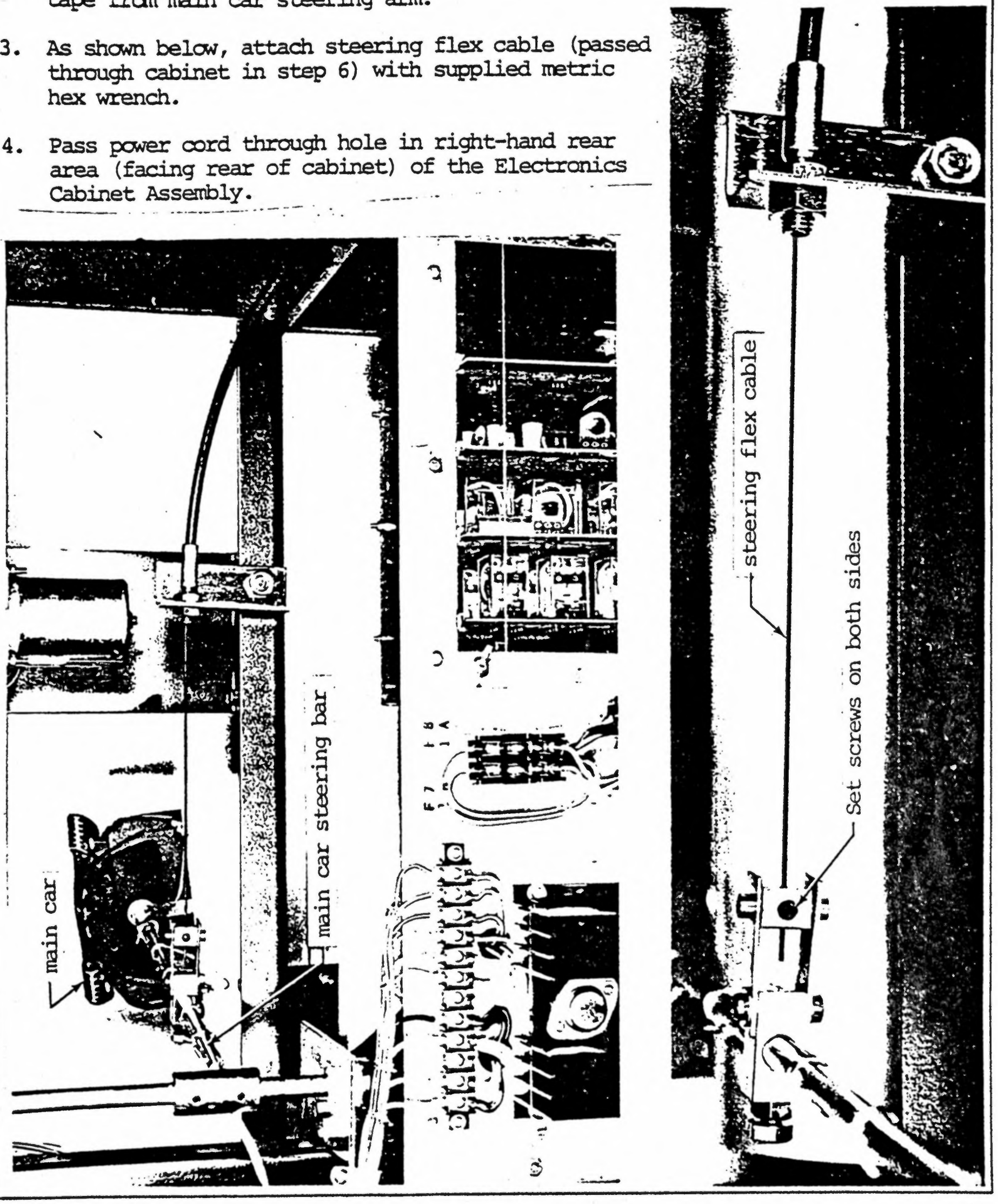


Step **7** 1. Open rear door of Electronics Cabinet Assembly by unlocking and lifting door up and out of cabinet.

2. Remove packing from beneath racetrack turntable; remove paper from beneath competition cars on top of racetrack turntable; and remove tape from main car steering arm.

3. As shown below, attach steering flex cable (passed through cabinet in step 6) with supplied metric hex wrench.

4. Pass power cord through hole in right-hand rear area (facing rear of cabinet) of the Electronics Cabinet Assembly.



Step 8

1. Determine the AC voltage scource into which you will plug F-1 (must be between 90 and 120 VAC).

2. Locate voltage selector as identified below. Adjust voltage selector for closest voltage of AC source.

3. Plug F-1 power cord into AC source.

WARNING

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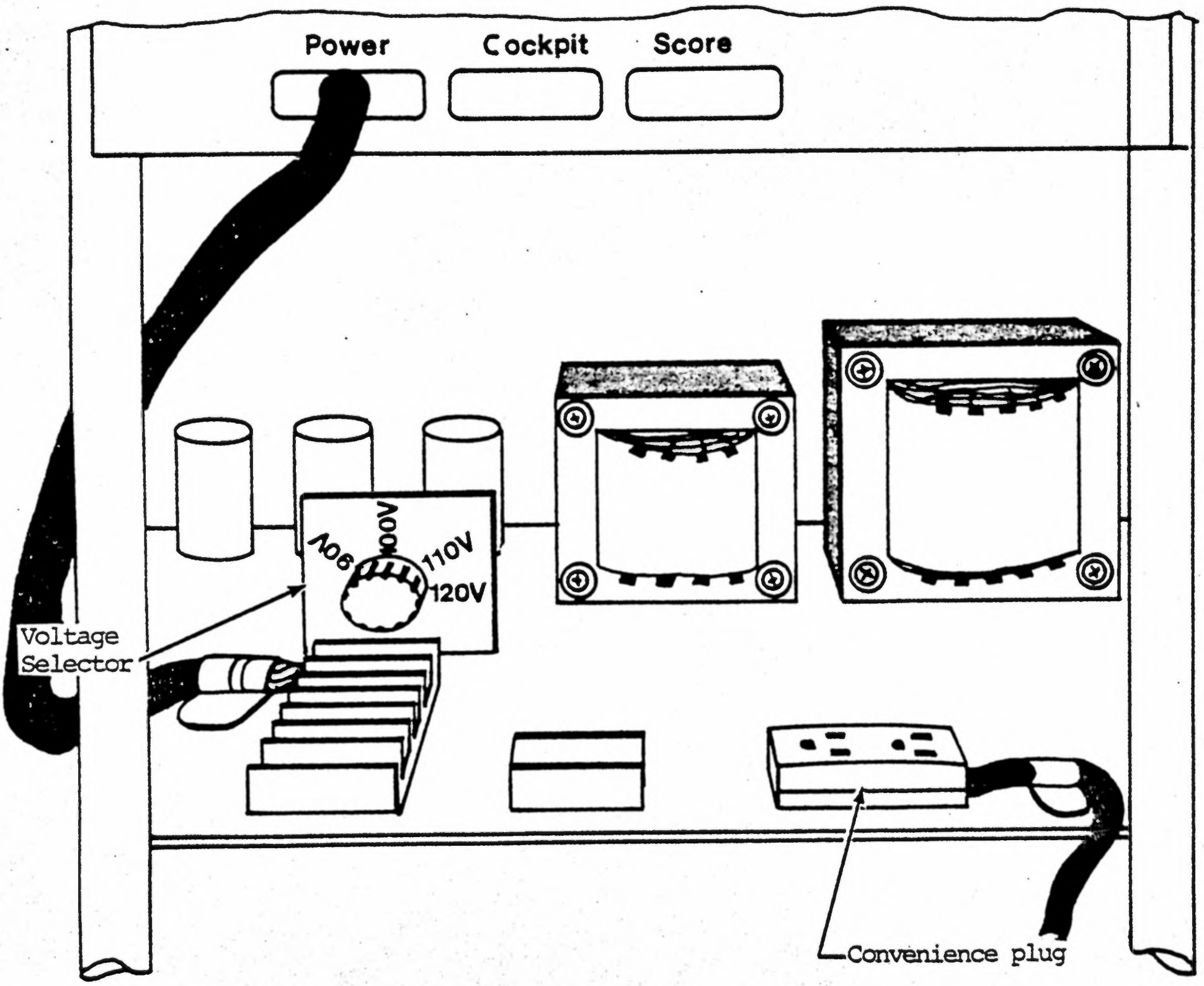

III. FINAL CHECK OF F-1

F-1 should now be ready for the final quality control check. This is accomplished by you climbing into the car cockpit, inserting two twenty-five cent pieces, and "driving" the game. While driving F-1, refer to the check list in Table 3-1.

Table 3-1 Final Check List

Check Item	Response
• Projected Racetrack	Reasonably clear image on viewing screen.
• Projected Cars	Reasonably clear image on viewing screen.
• Crash Scene	Projected when main car comes in contact with: 1. Either of the two competition cars, or 2. Side of racetrack. When crash scene begins, score tally will "freeze" for approximately five seconds. When crash scene begins, sound of an explosion is heard on the game speaker.
• Acceleration	Accelerator has two positions: 1. Partially depressed. 2. Fully depressed. Depressing the accelerator causes increase of motor sound.
• Gear Shifter	Low gear has immediate and rapid accelerating motor response. High gear has gradual accelerating motor response.
• Brake	Brake foot pedal: 1. Causes race track projection to decrease in speed. 2. Causes squealing tires sound.
• Steering	Steering wheel has smooth action and does not bind.

IV. ADJUSTMENTS AND MAINTENANCE OF F-1

CAUTION

DO NOT ADJUST POTENTIOMETERS ON PRINTED CIRCUIT BOARDS IF POTENTIOMETERS ARE GLUED WITH WHITE GLUE. THE CONSEQUENCES MAY COST YOU MONEY.

NOTE: The bright projection lamps have a life expectancy of approximately 100 hours. Therefore, it is suggested that you contact your distributor for spares. One is supplied.

There are few adjustments that need be made on F-1. However, there are two adjustments that you might check quite regularly. 1) Due to heat buildup within the electronics cabinet assembly, the plastic suspension that attaches the competition cars may sag. This will result in scratching the racetrack. Refer to Table 4-1 for adjustment suggestion. 2) Due to temperature differential between the inside and outside of glass of the main projector lamp, the lamp glass may blacken on the inside. If this occurs, switch the main projector lamp with the crash scene projector lamp.

For other adjustments, refer to Table 4-1. For maintenance suggestions, refer to Table 4-2. Figure 4-1 illustrates the locations of all adjustment potentiometers.

Table 4-1 Adjustments

Problem	Cause	Cure
Volume incorrect	Volume controls incorrectly adjusted	BRAKE volume: Rotate BRAKE potentiometer located on SOUND PCB clockwise to increase, counterclockwise to decrease. CRASH volume: Rotate BONG potentiometer located on SOUND PCB clockwise to increase, counterclockwise to decrease. All volumes: Rotate MAIN VOL potentiometer located on SOUND PCB clockwise to increase, counterclockwise to decrease.
Crash scene appears every five seconds or not at all	Photo cell (CdS) adjustment is incorrect	NOTE: There are three photo cells located on the main car (car on end of bar that moves with steering wheel). When light from main projector lamp is interrupted from any one of these photo cells, the crash scene should occur.