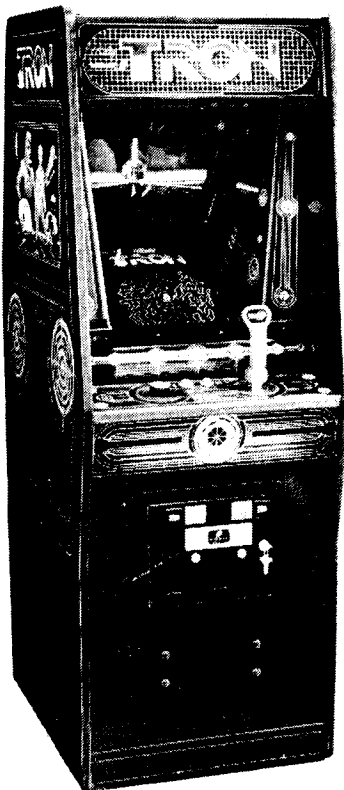


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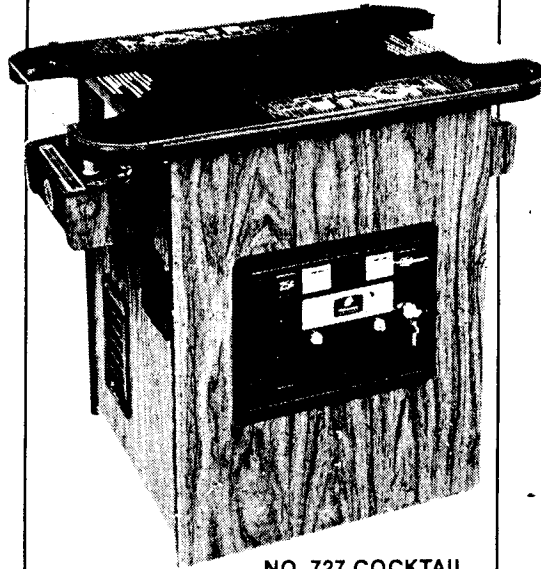
TRON

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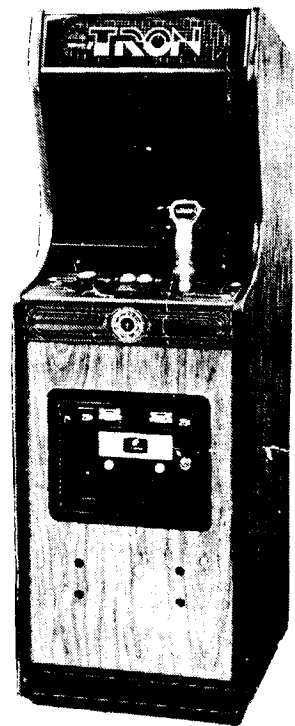
Parts and Operating Manual



NO. 628 UPRIGHT



NO. 727 COCKTAIL



NO. 728 MINI

Bally

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TRON

IMPORTANT NOTE

DO NOT plug in your new game yet. Before you do anything to your game, we recommend that you read SECTIONS I and II of this manual completely. It will not take more than a few minutes and it may be very helpful.

I Introduction

TRON is a one or a two player game. There are three models: the "UPRIGHT", "MINI", and "COCKTAIL TABLE". When the two player mode is selected on the Upright or Mini model, the players take turns at the controls to take TRON through the game course. If you have purchased the Cocktail Table model of this game, the rules of play are the same. The only **difference** is that in the two player mode of the Cocktail Table game, the picture flips to face you when it's your turn.

When playing this game, TRON is under **YOUR** control. **YOU** make him move back and forth across the screen to confront his opponents, alien and otherwise. The methods he uses to eliminate these opponents depend on which phase of the rack he is in.

The game is displayed in "racks"; each of which has four completely separate phases. By using the control stick, the contestant(s) can determine which of the four phases he will send TRON into. Once TRON has entered and completed a phase of any particular rack, that phase will not be available again until all of the other remaining phases in that rack have been completed. If TRON is eliminated in any particular phase, the next TRON is allowed to re-enter that phase to play it over again if you want him to.

The four phases that make up each rack are as follows:

PHASE # 1 — TANKS: You are provided with a top view of a maze with your Tank and enemy Tanks in it. The higher the number of the rack you are in, the

greater the number of enemy Tanks in there with you. This phase ends when all the enemy Tanks are destroyed — or — when you are.

PHASE #2 — GRID BUGS: A side view of a vertical grid is presented to the player in this phase. The Grid Bugs (which look something like spiders) begin to appear and start multiplying immediately. At the same time they are also coming after you. Shoot as many of these as you can while working your way to the I.O. TOWER in the center of the screen. Once you enter this I.O. TOWER, this phase is over.

PHASE #3 — CYCLES: In this phase you have a top view of Cyclists. The higher the number of the rack you are in, the greater the number of enemy Cyclists in there with you. You cannot run into any walls, cross your own light trail or cross the enemy Cyclist's trail. If you do, you will be destroyed. You must box in the enemy Cyclists, forcing them to run into either their own light trail, your light trail, or a wall, destroying themselves.

PHASE #4 — MCP BLOCKS: Here there is a rotating cylinder composed of colored blocks that is constantly descending on you. The higher the number of the rack you are in, the greater the speed with which the cylinder descends. You must either shoot all the blocks out of the descending cylinder or clear a space so you can enter the cone shaped area at its top. When you do either of these, this phase ends.

Bonus TRONS are awarded to you periodically throughout the game as you reach or pass certain preselected point values. Each item that can be shot has an assigned point value as listed in Figure 1-1.

Major Features

There are several major features in your TRON game: 1) There is a completely new and easy to use diagnostic package featuring: A) a complete ROM/RAM check with bad chip location information read out on the monitor screen; B) the capability to check each of the games' different sounds **INDIVIDUALLY**; C) provision for checking each control and switch **SEPARATELY**; D) a full function Bookkeeping mode; E) an entire options list that can be set from the front console with **NO NEED** to crawl inside the back of the cabinet and look for tiny switches located on P.C. boards; F) a sound system test; and G) a "PRE-SET" category that returns **ALL** information in the Book-keeping mode to zero and all operator selected

options back to factory recommended settings; 2) The game is equipped with a rechargeable battery so that it won't forget where it was the night before at closing — even if you turn it off. It will "remember" this information for up to two weeks; 3) There are four separate games contained in the program; and 4) As the player's skill level increases, so does his fire power to help him meet the increased difficulty of the game.

Game Objective

The object of the game is to **HAVE FUN** while constantly increasing your skill as you play, wiping out as many of the enemy as possible each time to get the highest score.

DESCRIPTION	POINTS AWARDED
1st HIT ON TANK	100 POINTS AWARDED
2nd HIT ON TANK	300 POINTS AWARDED
3rd HIT ON TANK (TANK DESTROYED)	500 POINTS AWARDED
GRID BUG DESTROYED	50 POINTS AWARDED
GRID BUG EGG DESTROYED	50 POINTS AWARDED
CYCLIST DESTROYED	500 POINTS AWARDED
EACH MCP BLOCK DESTROYED	25 POINTS AWARDED
ENTIRE CYLINDER DESTROYED	1000 POINTS AWARDED
ENTERING CONE AT TOP OF CYLINDER	1000 POINTS AWARDED

Figure 1-1 Assigned Point Values

II Location and Setup

INSPECTION:

1. Remove the game from its shipping crate.
2. Inspect the entire outside of it for any signs of damage.
 - ☐ Any scratches? Dents? Cracks?
 - ☐ Any broken controls?
 - ☐ Any broken glass or plastic?
 - ☐ Just look it over closely and make a note of any signs of damage.
3. Remove the shipping cleats from the bottom of the cabinet.
 - ☐ **UPRIGHT MODELS ONLY:** In order to help prevent easy theft of your game, you may wish to remove the Caster Wheel Assemblies from the bottom of your cabinet at this time.
4. Install the four levelers, one at each corner of the cabinet.
 - ☐ Level the cabinet.
5. Open the cabinet and inspect the inside of the game for any signs of damage. See Figure 2-1.
 - ☐ Also check to make sure all plug-in connectors on the wire harness are firmly seated.

NOTE: All connectors or plugs are keyed so they will only go together when all pins are properly lined up.

- ☐ Replug any connectors found unplugged. **DO NOT FORCE PLUGS ONTO CONNECTORS. DO NOT FORCE PLUGS TOGETHER.** If it won't go on easily, assuming the keys are lined up, it either does not belong there or is damaged.
 - ☐ Make sure all printed circuit boards (P.C.B.'s) are firmly seated in their connectors. See Figure 2-1. These connectors are also keyed. The P.C.B.'s will only go into them one way without being damaged.
 - ☐ Note the location of the games' serial number. See Figure 2-1.
 - ☐ Check all major subassemblies to be sure they are mounted securely. These are called out in Figures 2-1 and 2-2.
 - Power supply.
 - Control panel(s).
 - T.V. monitor.
 - Other P.C.B.'s and/or P.C.B. rack, etc.
 - Power supply filter assembly.
 - Transformer board assembly.
6. Make a note of any problems that can't be easily corrected.

7. Call your distributor and/or service man about your problem list.

INSTALLATION:

1. Location requirements:

- ☐ **Power:**
 - Domestic 110 V @ 60 Hz
 - Foreign 200 V to 240 V @ 50 Hz
- ☐ **Temperature:** 32° to 100° F (0° to 38° C)
- ☐ **Humidity:** Not over 95% relative
- ☐ **Space required:**

Upright	25" x 36"	(63 x 91cm)
Mini	20" x 24"	(50 x 60cm)
Cocktail	32" x 22"	(81 x 55cm)
- ☐ **Game height:**

Upright	70"	(175cm)
Mini	61"	(153cm)
Cocktail	29"	(73cm)

2. Voltage Selection

Your game is designed to work properly on the line voltage where you are located. Check your line voltage with a meter to determine what its value is. Then check the power input wires to the main power supply transformer on your game to be sure they are connected to taps which correspond to your line voltage value.

If the power input wires to the main power supply transformer are not connected to taps which correspond to your local line voltage, move them to the proper taps.

If the line voltage in your area falls outside the upper or lower limits of the range of inputs covered by the main power supply transformer, **DO NOT PLUG YOUR GAME IN** until you have talked with your distributor and/or service man and obtained a solution to this problem. Otherwise you could damage your game.

3. Interlock and power ON/OFF switches. See Figure 2-1.

- ☐ To help prevent the possibility of getting an electric shock while working inside the game cabinet, interlock switches have been installed at each cabinet access door (this **DOES NOT** include the coin door in the Upright and Mini models).
- ☐ When any access door is opened, the interlock switch installed there turns off all power to the game.
- ☐ Check each interlock switch for proper operation.

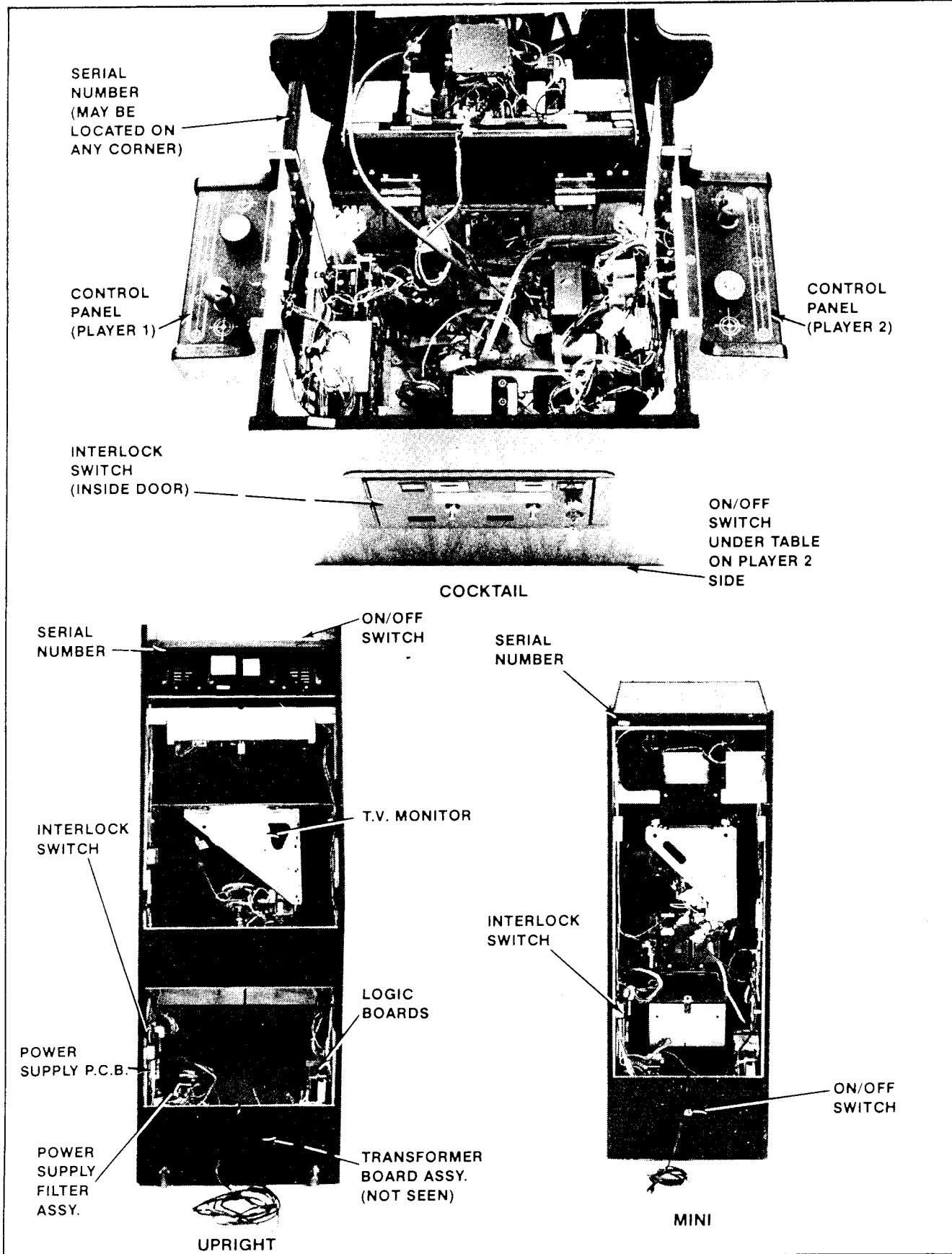


Figure 2-1 Location of Serial No., Interlock Switch, On/Off Switch, & Major Sub-Assys.

After checking the line voltage in your area and determining that the input wires to the main power supply transformer of your game are connected properly — or — after obtaining a solution to your over or under voltage problem from your distributor and/or your service man, plug the game into your A.C. wall outlet.

The game ON/OFF switches for all models are located as shown in Figure 2-1. Turn the game on and allow it to warm up a few minutes.

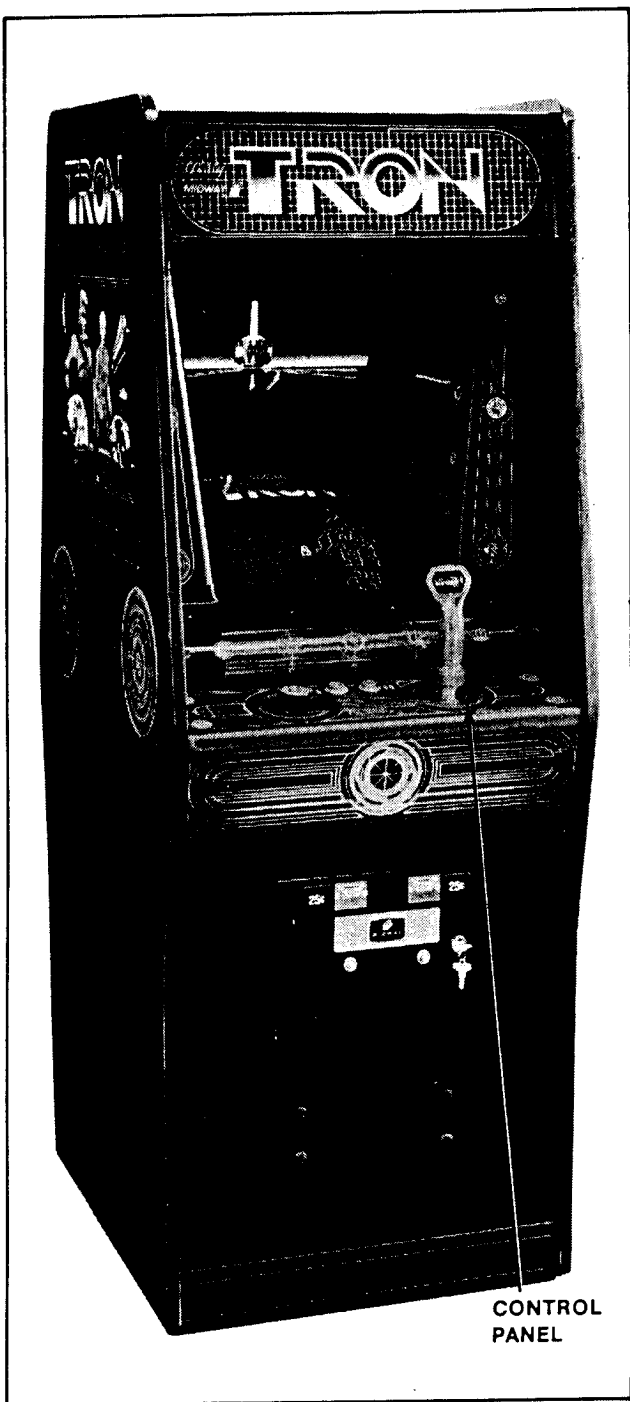


Figure 2-2 Major Sub-Assys. (Cont. from Fig. 2-1)

Slowly open each access door to the game (this **does not** include the coin door on the Upright and Mini models).

As the door is opened approximately 1" (2.54cm) the power to the game should go off (the T.V. monitor, all the lights, and all sounds will stop).

If this does not happen, check the interlock switch by this door to see if it has broken loose from its mounting or if it is stuck in the "ON" position.

If the switch is found to be bad, turn the game off, unplug it, and replace the interlock switch. When done, plug the game back into the wall outlet, close the access door, and turn the game back on.

After the game has warmed up, repeat the above interlock switch test.

When the interlock switch is working properly and turns the power to the game off, power may be restored to the game with the access door(s) open. Take hold of the interlock switch plunger and **gently** pull it out to its fully extended position. **THIS IS TO BE USED ONLY FOR SERVICING THE GAME.** See Figure 2-3.

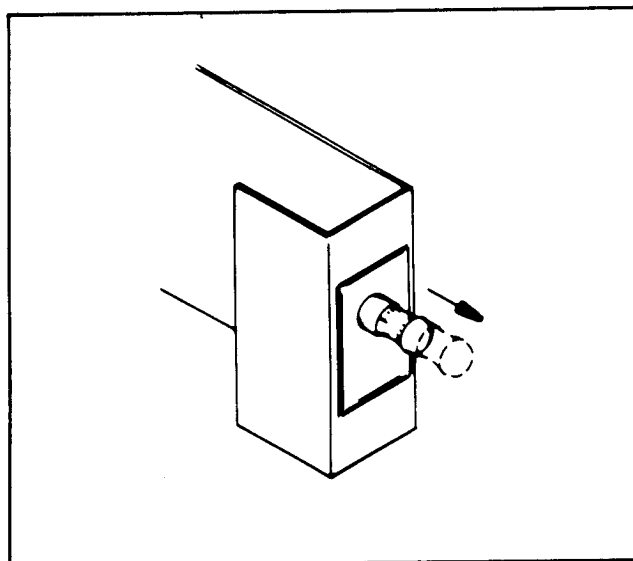


Figure 2-3 Interlock Switch Operation

SELF-TEST:

Your new game will Self-Test itself to see if it has any bad parts. The information it receives while testing itself will be shown on the T.V. monitor. Some information can also be heard through the game's speaker system. See the GAME OPERATION section for a more detailed description of this function.

When there is a bad result according to the Self-Test, call your distributor and/or service man to have the trouble fixed unless it is something you can do yourself (such as replace a bad RAM or ROM chip).

GAME VOLUME ADJUSTMENT CONTROL. (See Figure 2-4)

The game volume control pot is located just inside the cabinet on the right side of the coin door frame. There is only one pot. For adjustment, it may be reached through the coin door on **ALL** models.

To make the sounds louder, turn the pot clockwise as you face it (↻).

To make the sounds **less** loud, turn the pot counter-clockwise as you face it (↺).

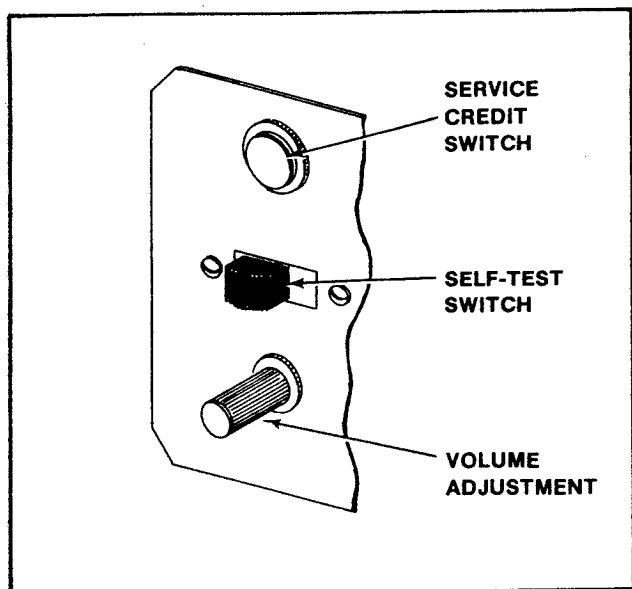


Figure 2-4 Game Volume Adjustment Control

OPTION SETTINGS:

To change the most common option settings, you **DO NOT** have to take the game apart or go into the cabinet and hunt for tiny switches on P.C. boards. These most common options can be changed from the main console of the game while it is in the Self-Test mode. The Self-Test switch is located just inside the cabinet on the right side of the coin door frame as you face it.

When changing any options, **ALWAYS** perform the Self-Test and play the game to be sure the ones selected are working properly. Of course, when you must change one of the switches that is located on one of the game's P.C. boards, it is also recommended that you perform the Self-Test and play the game to be sure the switches have worked properly and that no switches were accidentally moved that were not meant to be. (These switches are small and this can happen.)

The P.C. Board option switch settings, and what they will make the game do are shown in Figure 2-6. These switches are **MAINLY INTENDED** for use by a technician who is checking and/or performing tests on the game. See Figure 2-5 for option switch locations.

NOTE: In order to set the option switches located on the game's P.C. Boards, these Boards need not be removed from their card rack.

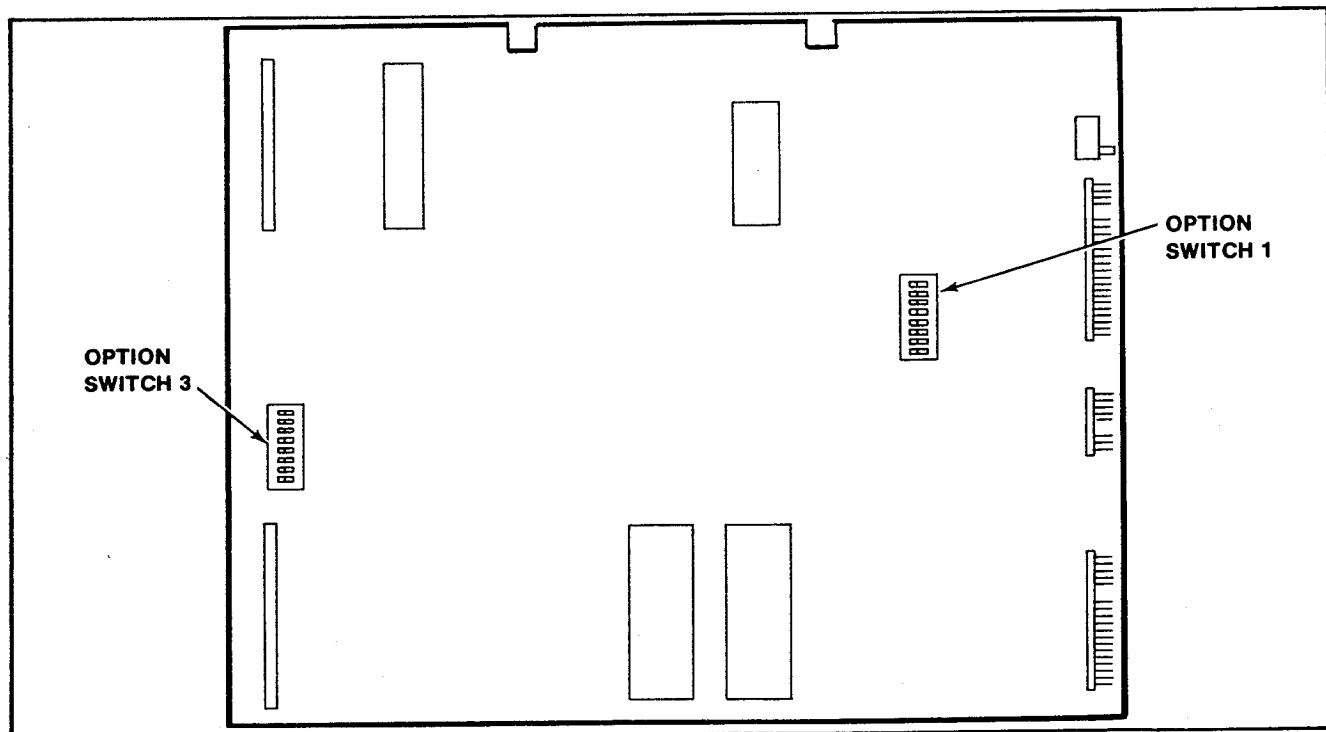


Figure 2-5 Option Switch Location

TRON

TRON

OPTION SWITCH SETTINGS

SWITCH NO. 1 — AT B 3 — LOCATED ON SOUND I/O P.C. BOARD

	SW#1	SW#2	SW#3	SW#4	SW#5	SW#6	SW#7	SW#8	SW#9	SW#10
2 COIN METERS	ON				NOT	NOT	NOT	NOT	NOT	NOT
1 COIN METER	OFF				USED	USED	USED	USED	USED	USED
MINI/UPRIGHT COCKTAIL TABLE		ON OFF								
BUY IN ALLOWED NO BUY IN			ON OFF							
FREEZE VIDEO NORMAL OPERATION									ON OFF	

SWITCH NO. 3 — AT D 14 — LOCATED ON SOUND I/O P.C. BOARD

	SW#1	**SW#2	**SW#3	**SW#4
NORMAL OPERATION SOUND I/O DIAGNOSTIC MODE	OFF ON			
NORMAL OPERATION RAM/ROM TEST INDICATES TEST RESULTS VIA YELLOW LED ON SOUND I/O BOARD: FAST FLASH = BAD ROM SLOW FLASH = BAD RAM	OFF ON			THE REMAINDER OF TRON'S MOST COMMON OPTION SETTINGS ARE CON- DUCTED DURING THE MACHINE SETUP PORTION OF THE SELF-TEST MODE AND WILL BE COVERED IN DETAIL IN THAT SECTION OF THIS MANUAL
NORMAL OPERATION OSCILLATOR TEST			OFF ON	
NORMAL OPERATION FILTER TEST				OFF ON

**NO EFFECT IF SW#1 OF SWITCH NO. 3 IS IN THE "OFF" POSITION.

Figure 2-6 Option Switch Settings

III Game Operation

TRON is a one or a two player game with a color T.V. monitor. The game gives a display which has all the parts shown in Figure 3-1.

The game has five possible modes of operation: ATTRACT, READY-TO-PLAY, HIGH SCORE INITIAL and SELF-TEST.

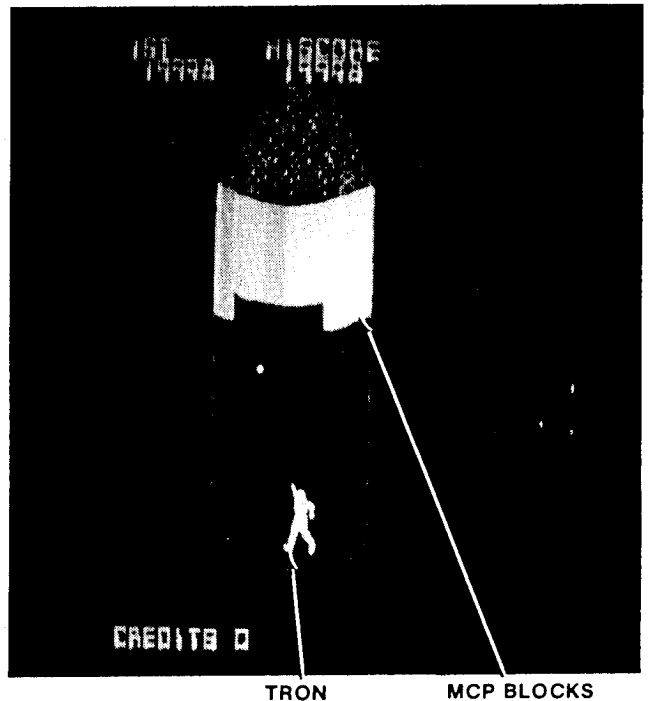
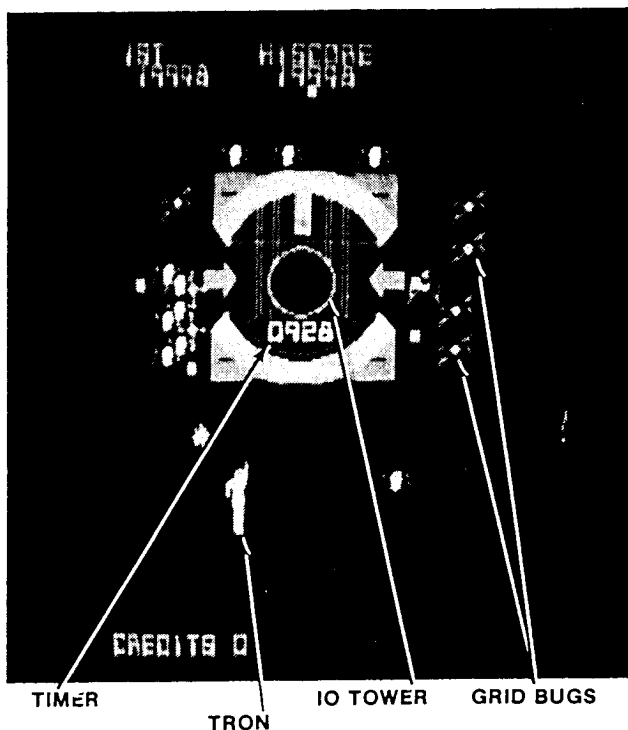
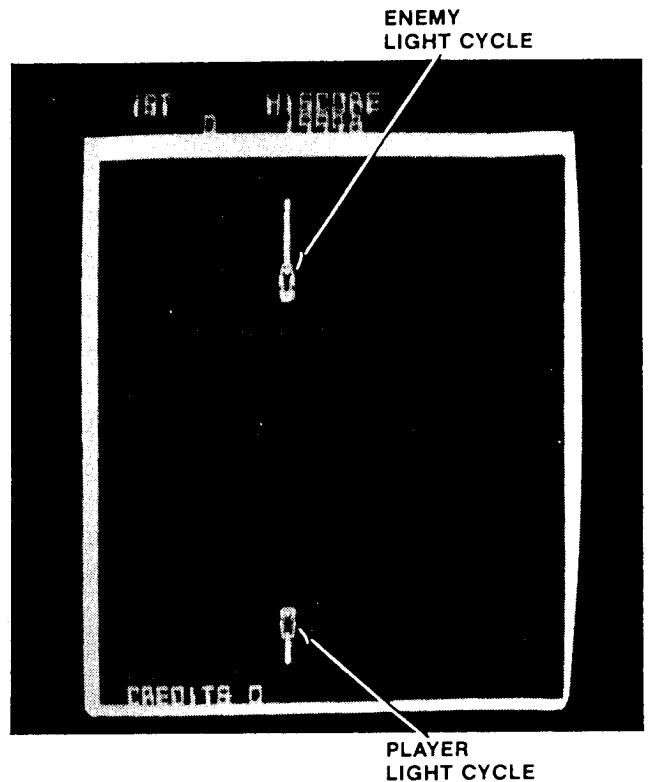
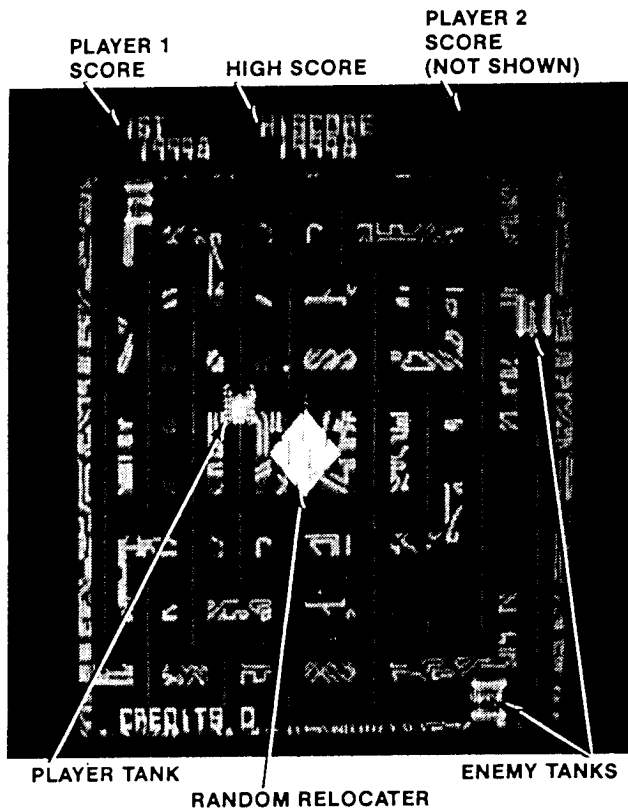


Figure 3-1 Game Operation

SELF-TEST MODE

The Self-Test mode is a special mode for checking game play statistics as well as game switches and computer functions. It is the easiest and best way to check for proper operation of the entire game.

NOTE: Putting the game into Self-Test **WILL NOT** cause the game to erase any CREDITS it has in its memory when the Self-Test mode is entered.

You may begin a Self-Test at any time by sliding the Self-Test switch to the "ON" position after the power to the game is on (the Self-Test switch is located just inside the cabinet on the right side of the coin door frame as you face it). When this is done, the game will react as follows:

1. If the game is in the Attract mode when the Self-Test switch is moved to the "ON" position, it will finish the sequence and then go into the Self-Test mode. This is illustrated by the display of the Self-Test Mode Menu on the monitor screen.
2. If the game is in the Ready-To-Play mode or the Play mode when the Self-Test switch is slid to the "ON" position, it **WILL NOT** go into the Self-Test mode until **AFTER** the players' last TRON has been eliminated (the game **MUST** be over). At this point, the game will go into the Self-Test mode. Again, this is illustrated by the display of the Self-Test Mode Menu on the monitor screen.
3. The fastest way to enter the Self-Test mode is to slide the Self-Test switch to the "ON" position and then activate the "TILT" switch located on the back side of the coin door just below the lock mechanism. The game will then **IMMEDIATELY** go into the Self-Test mode.

The Self-Test mode has eight (8) major categories as illustrated by Figure 3-2.

1. It is easy to select what category you want to enter. By pushing forward or pulling backward on the controller stick, the Cursor at the left of the screen can be moved UP and DOWN, (forward=UP) and (backward=DOWN), until it is in front of the category you want to test. Release the controller stick at this time.
2. After the Cursor has been positioned, pull the trigger on the controller stick and the monitor screen will display the test category you have selected.

NOTE: There is one exception to this. If you position the Cursor in front of the "PRESET" category on the Self-Test Mode Menu, when you pull the trigger on the controller stick — **EVERYTHING**, I repeat — **EVERYTHING**; including **ALL** information in the "BOOKKEEPING" mode, and **ALL operator selected options**, will be set back to zero "0" and to the factory recommended settings — **respectively**.

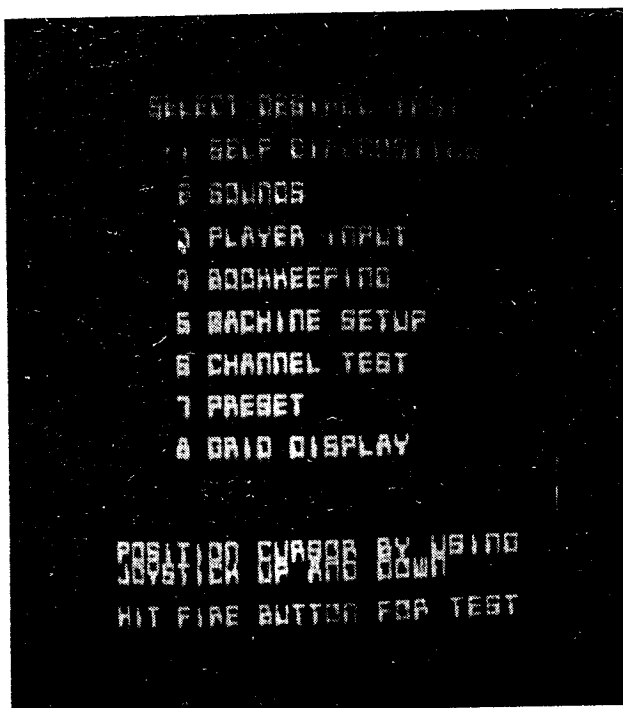


Figure 3-2 Self-Test—Menu

- Once you are **IN** one of the Self-Test mode categories, **FOLLOW THE ON-SCREEN INSTRUCTIONS TO COMPLETE THE TEST**.

3. The next group of figures shows the **CORRECT** screen presentation for **EACH** category of the Self-Test mode.

During the SELF DIAGNOSTICS section of the Self-Test mode, you will **first** see a cross hatch pattern on the screen for about 1/2 second. **Second**, you will see a lot of different colored bars shown on the monitor screen. These bars will be UNpainted one at a time from the top down. **Third**, you will see the screen painted Red, Blue, and Green in bars from the top down. **Fourth**, another group of colored bars is displayed. This sequence is repeated several times. And finally, this sequence is replaced by this message: "**HIT FIRE BUTTON TO EXIT**". If the Fire button is not hit, the test will repeat itself. This feature was designed into the game to enable over-night testing for an intermittent hardware problem.

If the SELF DIAGNOSTICS find one or more bad ROM or RAM chips: instead of going through what is described above, the game will give you a written message as to which parts are bad. This message includes their I.D.'s and their P.C. Board locations.

During the SOUNDS sections of the Self-Test mode, the game will give a display which looks like that shown in Figure 3-2a.

- In this category, each of the game's 24 separate sounds can be checked individually in any order — or — you can tell the game to check them all in order — 3 through 26.

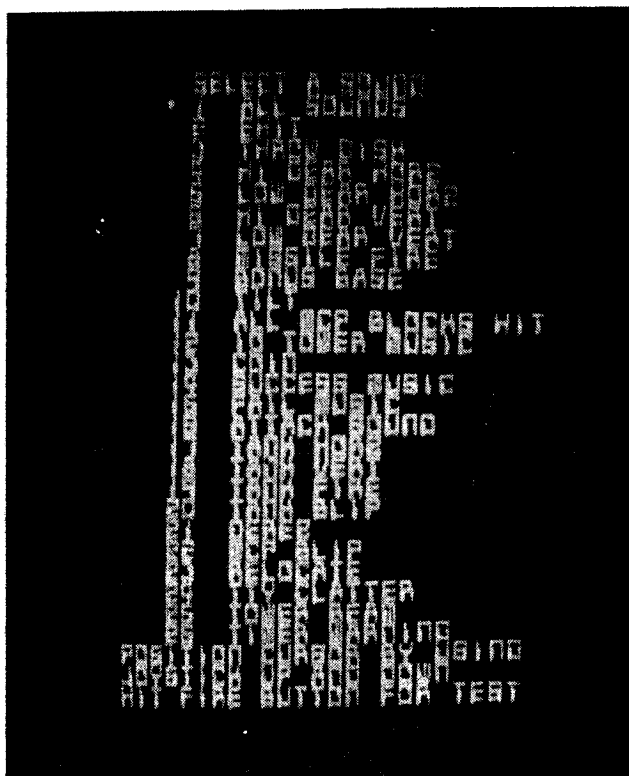


Figure 3-2a Self-Test—Sounds

As the Player Input Switches and Devices are activated, the Switch or Device activated is spelled out in the space indicated.

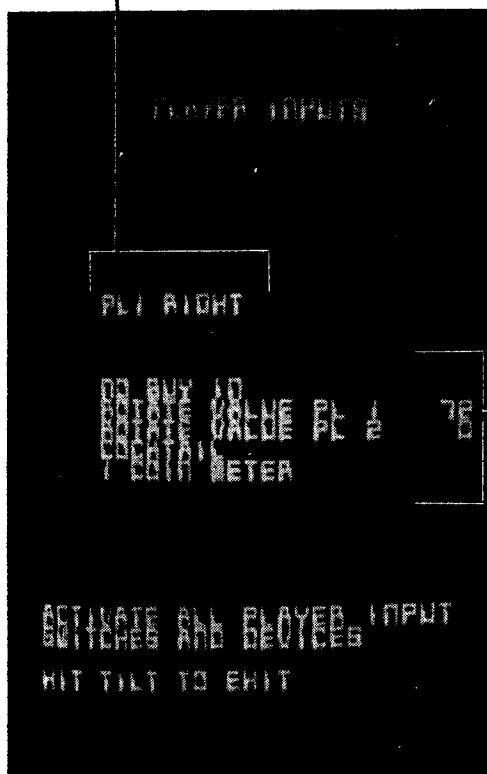


Figure 3-2b Self-Test—Player Input

This is
a P.C.B.
switch
setting.

During the PLAYER INPUT section of the Self-Test mode, the game will give a display which looks like that shown in Figure 3-2b.

- In this category, each of the game's player operated controls — including the coin switches on the back side of the coin door — may be checked individually. A game sound will be heard as each switch/control is actuated. If no game sound is heard, that switch/control is either not working, miswired, or disconnected. Check it out thoroughly.

During the BOOKKEEPING section of the Self-Test mode, the game will give a display which looks like that shown in Figure 3-2c.

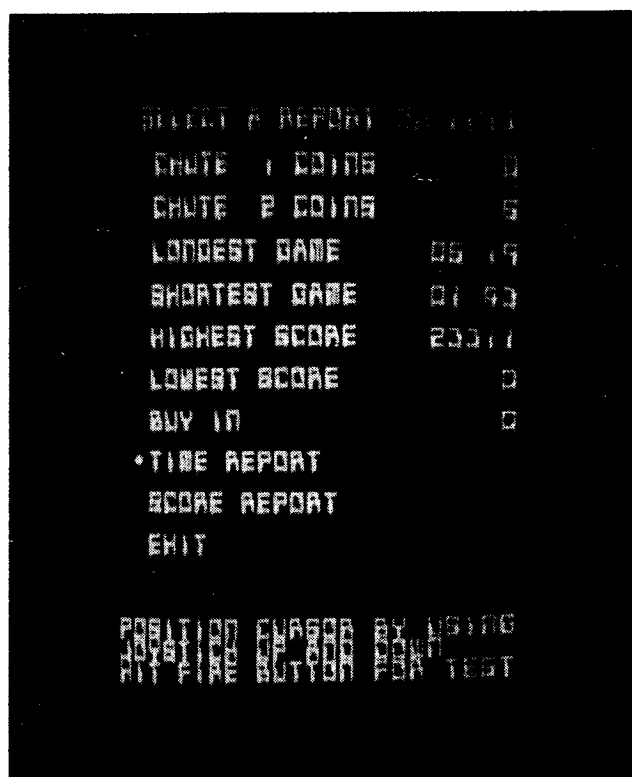


Figure 3-2c Self-Test—Bookkeeping

- In this category a basic bookkeeping function is performed. And with the selection of the "TIME REPORT" and the "SCORE REPORT", detailed breakdowns of game times and scores may be obtained.

In the TIME REPORT and SCORE REPORT sections of the BOOKKEEPING mode, the game will give displays which look like those shown in Figures 3-2d and 3-2e respectively.

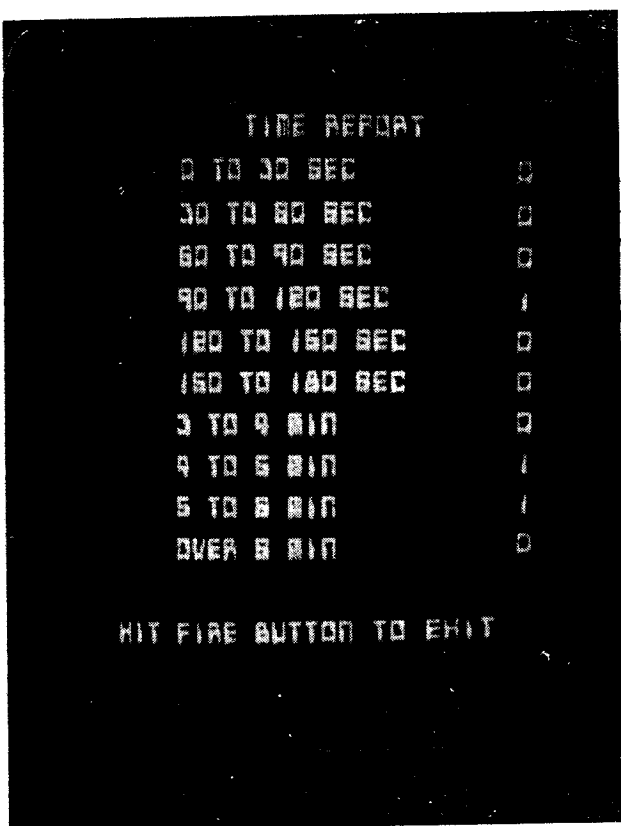


Figure 3-2d Self-Test—Time Report

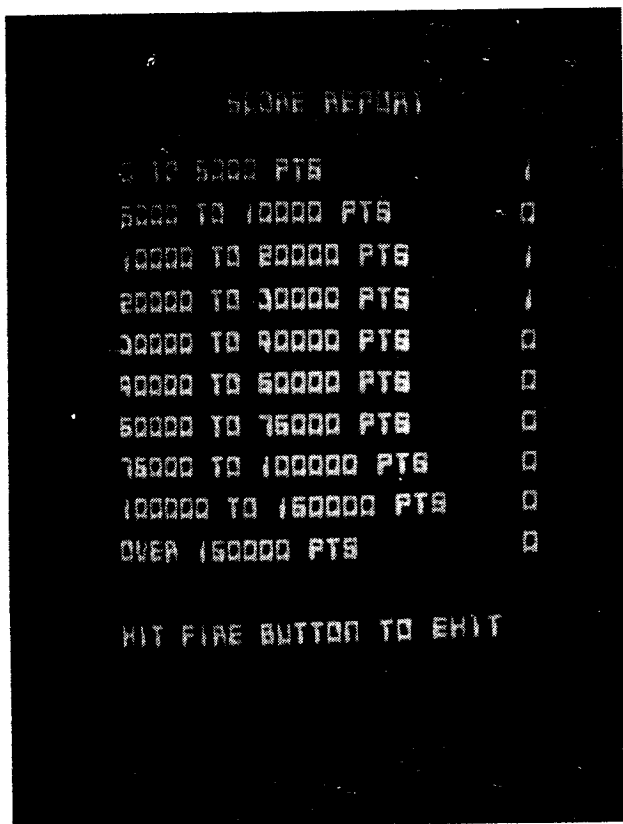
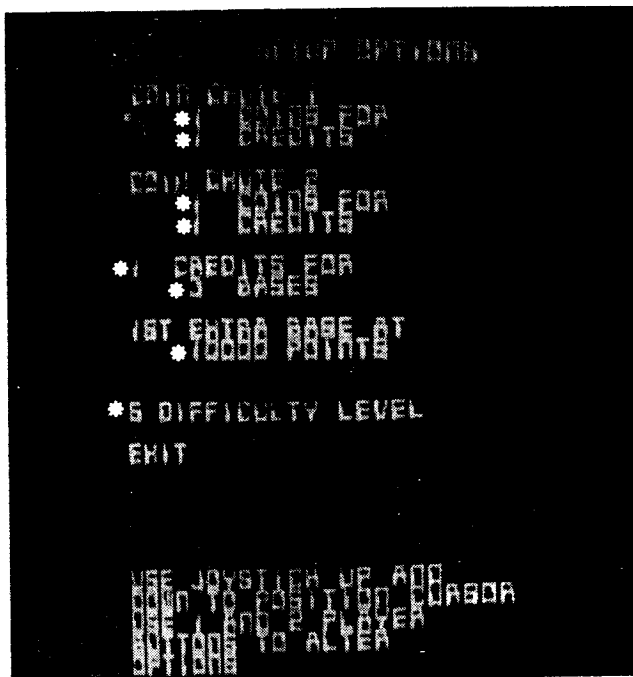


Figure 3-2e Self-Test—Score Report

During the SETUP OPTIONS section of the Self-Test mode, the game will give a display which looks like that shown in Figure 3-2f.



* = Factory recommended settings.

Figure 3-2f Self-Test—Setup Options

- ☐ In this category, all common game options may be changed from the control console: coins per credit, credits per base, bonus base(s) awarded at, difficulty level --, and so on.

The Difficulty Level setting has a range of 1 to 9 with 1 representing the easiest level of play and 9 representing the most difficult level of play. One is the factory recommended setting.

During the CHANNEL TEST section of the Self-Test mode, the game will give a display which looks like that shown in Figure 3-2g.

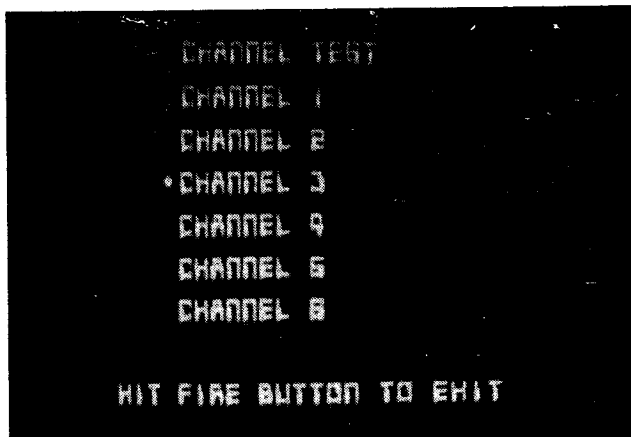


Figure 3-2g Self-Test—Channel Test

- ☐ In this category, the game conducts a test of its SOUND SYSTEM.

Once you enter the CHANNEL TEST section of the Self-Test mode, the game automatically tests Channels 1 through 6 giving a tone for each one as it checks it. After the 6th Channel is tested, the game automatically repeats the test until the Fire button is hit. It then goes back to the Self-Test Mode Menu.

During the GRID DISPLAY section of the Self-Test mode, the game shows a white cross hatch pattern on the monitor screen. This is for alignment and/or test purposes. This pattern will remain on the monitor screen until the Fire button is hit. The game will then go back to the Self-Test Mode Menu.

To leave the Self-Test mode, simply slide the Self-Test switch to the "OFF" position at **ANY** time. Normal game functions will return to the monitor screen.

RACK ADVANCE:

The game can be made to advance through the various racks by beginning a game **and THEN** sliding the Self-Test switch to the "ON" position. After this has been done, each time you depress the TWO PLAYER BUTTON the game will advance one rack.

When you reach the desired rack, slide the Self-Test switch to the "OFF" position. (If you leave the Self-Test switch in the "ON" position, the game will go into the Self-Test mode when you are finished playing the rack you "advanced" to.)

CROSS HATCH PATTERN:

A cross hatch pattern is shown on the screen when power is first turned on to the game, when the TILT Switch is actuated, during the "SELF DIAGNOSTIC" portion of the Self-Test mode, and during the "GRID DISPLAY" portion of the Self-Test mode.

This pattern may be kept on the screen for adjustment purposes as described earlier.

When you are finished using the cross hatch pattern, simply hit the Fire button to return to the Self-Test Mode Menu.

HARDWARE MASTER RESET SWITCH:

There are two of these little red switches, one on the Sound I/O Board and one on the CPU Board, located as shown in Figure 3-3.

The function of each of these switches — when pressed — is to make the game think it has **JUST** been turned on. They set up an "initial power-up" condition.

We **DO NOT** recommend that you indiscriminately press **EITHER** of these switches. They should **ONLY** be used if there is a major problem encountered while testing the P.C. Boards.

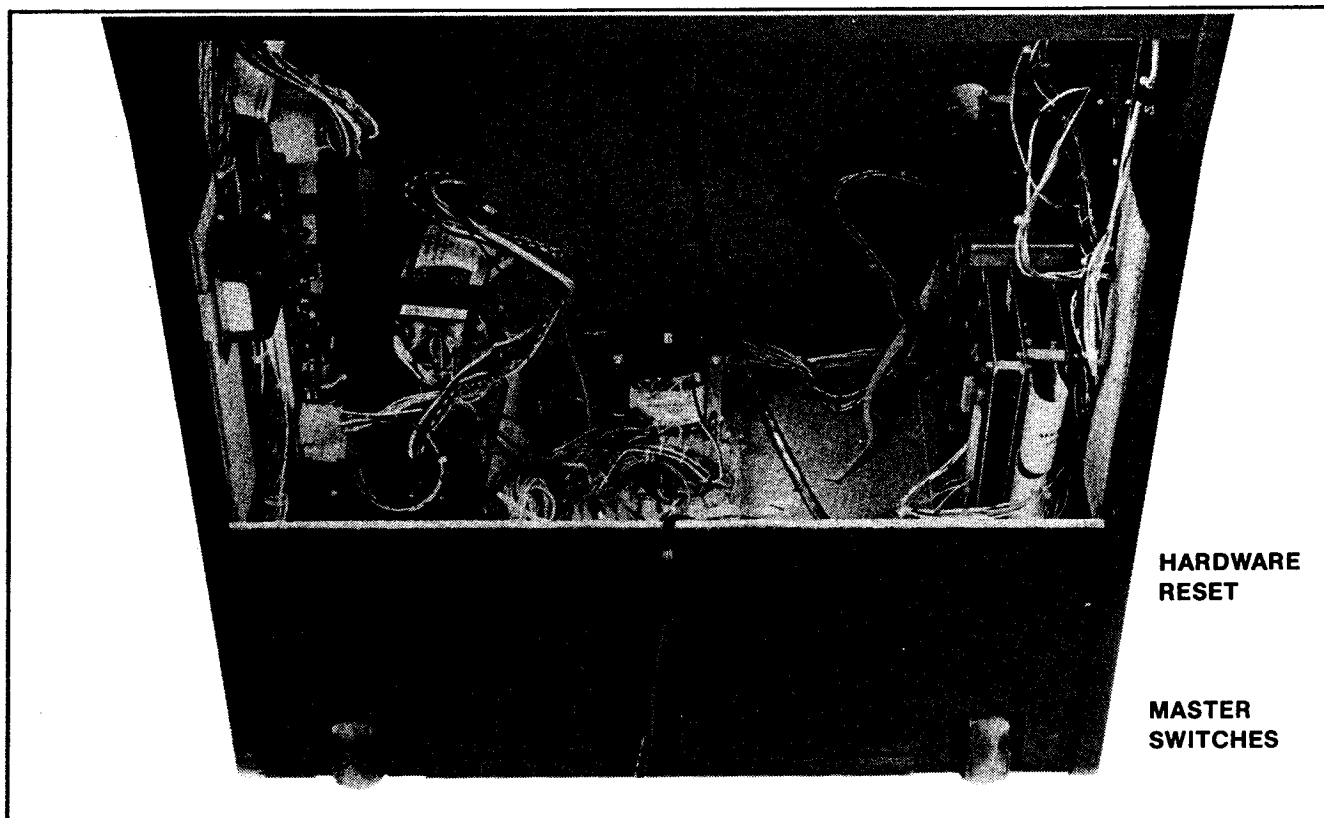


Figure 3-3 Location of Hardware Master Reset Switches

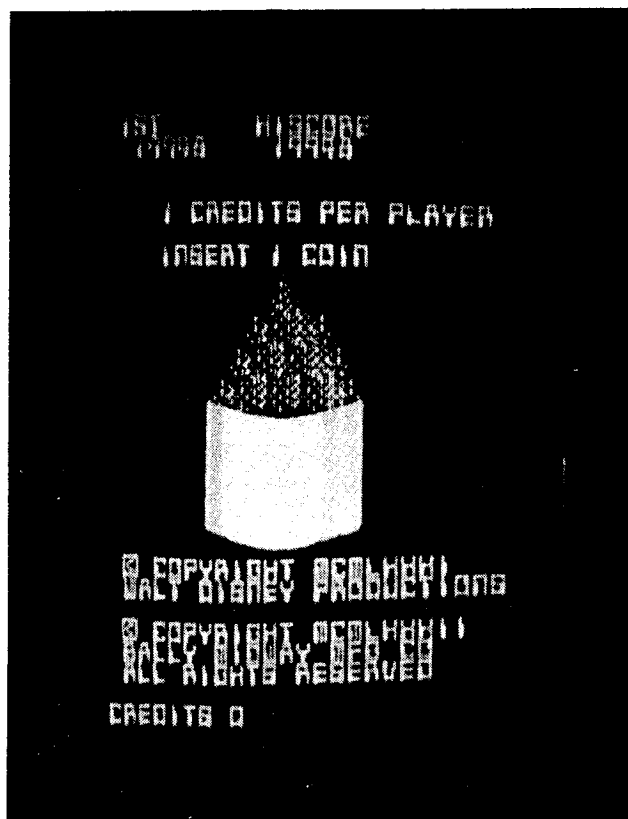
ATTRACT MODE

1. The Attract mode starts:

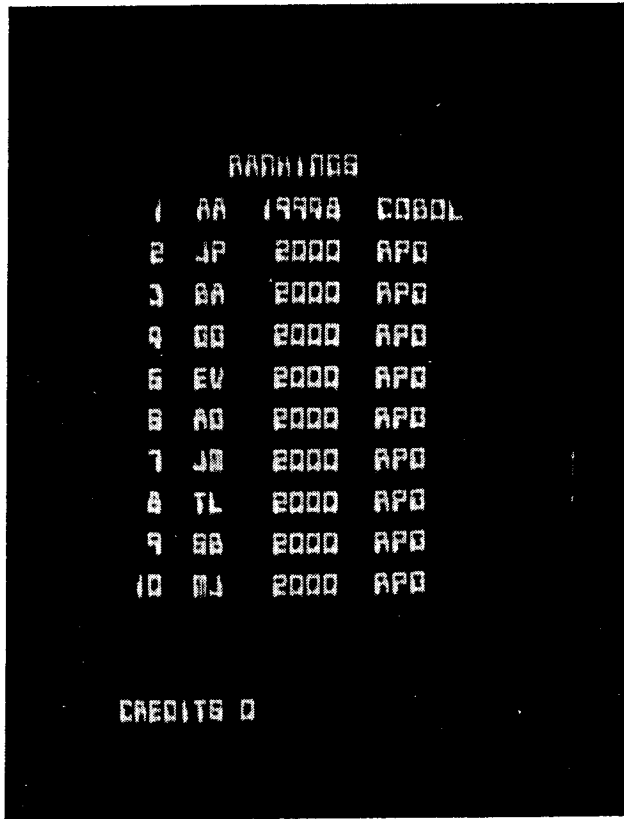
- ☐ Just after the power has been turned on to the game. (Self-Test switch is in the "OFF" position.)
- ☐ After a Self-Test has been completed and there are no more credits left in the game's memory.
- ☐ After a play has been finished, the score was not high enough to put the game into the High Score/Initial mode, and there are no more credits left in the game's memory.
- ☐ After the High Score/Initial mode when there are no more credits left in its memory.
- ☐ In the Attract mode, the game will give the following displays **centered** on the monitor screen:
- ☐ No matter where the game is in the Attract mode sequence, it will immediately go to the following display as soon as a game has been paid for. It will hold this display on the monitor screen until the "1 PLAYER" or the "2 PLAYER" start button is pushed.



Attract Mode Display 2



Attract Mode Display 1



Attract Mode Display 3

MAP OF GAME GRID

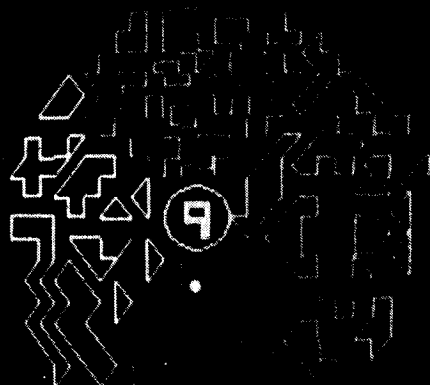
PLAYER DOT
JOYSTICK MOVES DOT
TRIGGER NOT USED
KNOB NOT USED

TRON CONSISTS OF 9 GAMES
EACH COLORED AREA
REPRESENTS A GAME

CREDITS 0

Attract Mode Display 4

TRON



CREDITS 0 AFD

Attract Mode Display 6

MAP OF GAME GRID

SELECT AN AREA BY MOVING
TO THE OUTSIDE EDGE OF THE
CIRCLE BEFORE THE TIMER
INSIDE THE CENTER OF THE
CIRCLE EXPIRES

UPON SUCCESSFUL COMPLETION
OF A GAME IN AN AREA THE
AREA CAN NOT BE REENTERED
UNTIL ALL AREAS HAVE BEEN
CONQUERED

CREDITS 0

Attract Mode Display 5

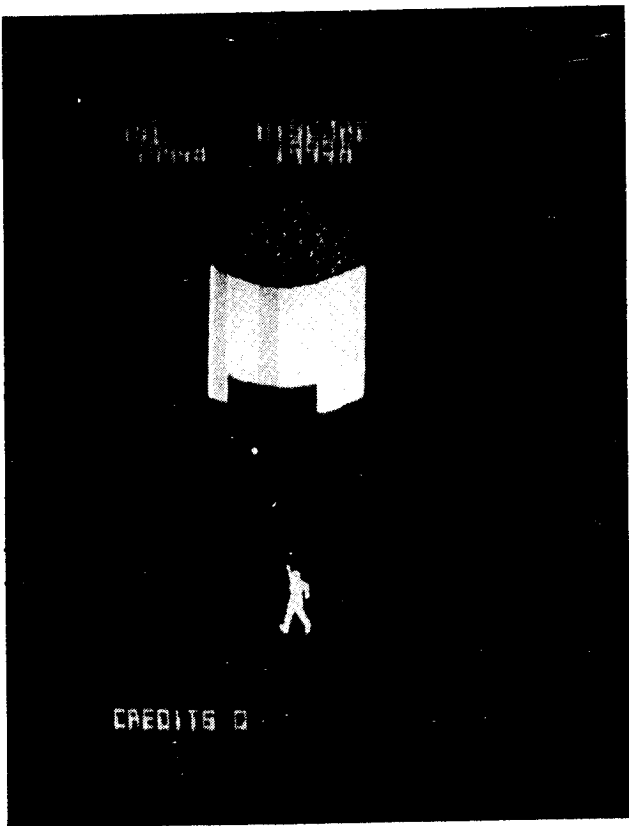
TRON

PLAYER TRON
JOYSTICK MOVES TRON
TRIGGER FIRES DISK
KNOB AIDS DISK

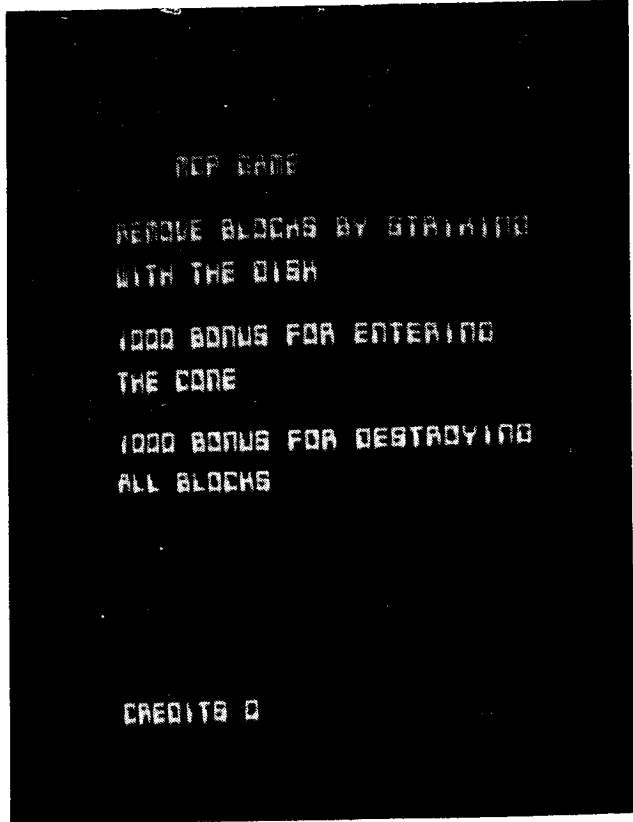
ENTER THE MASTER CONTROL
PROGRAM CODE WITHOUT
TOUCHING A BLOCK

CREDITS 0

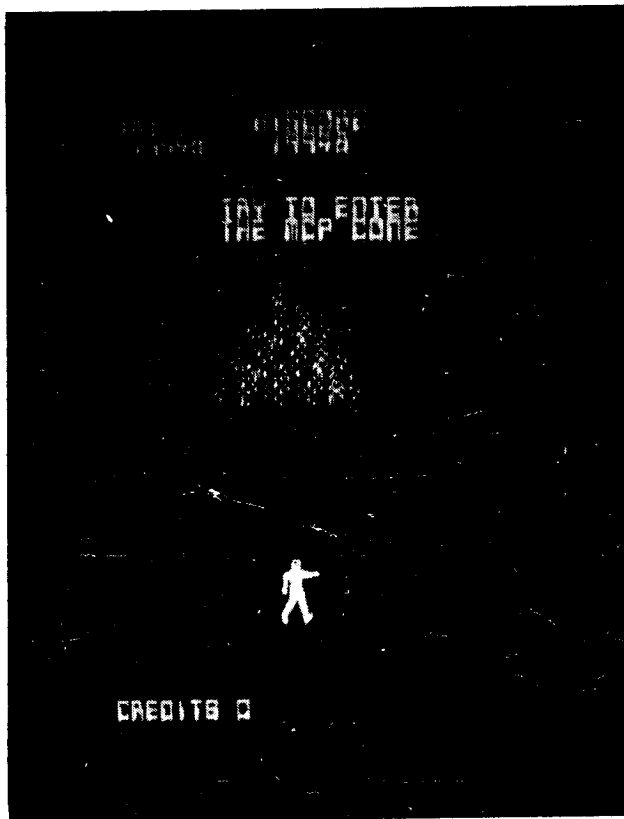
Attract Mode Display 7



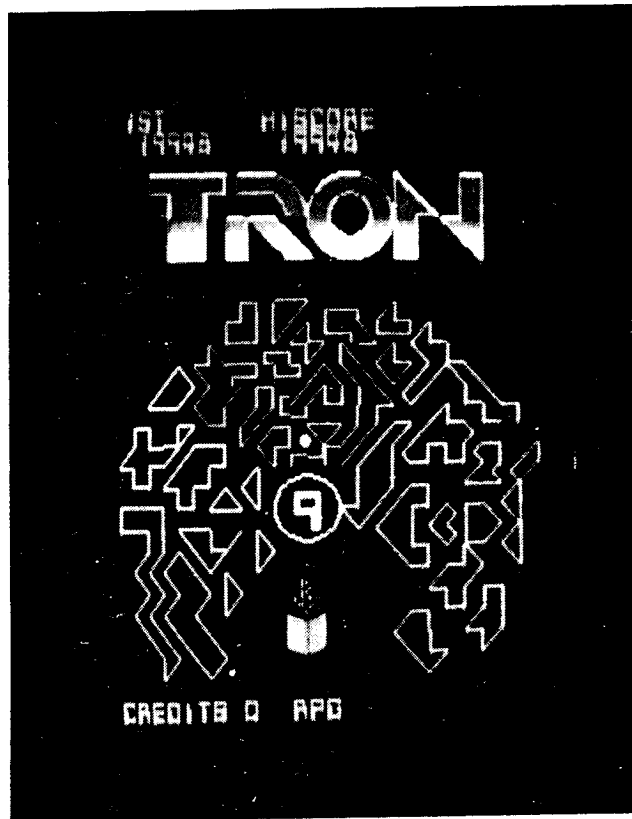
Attract Mode Display 8



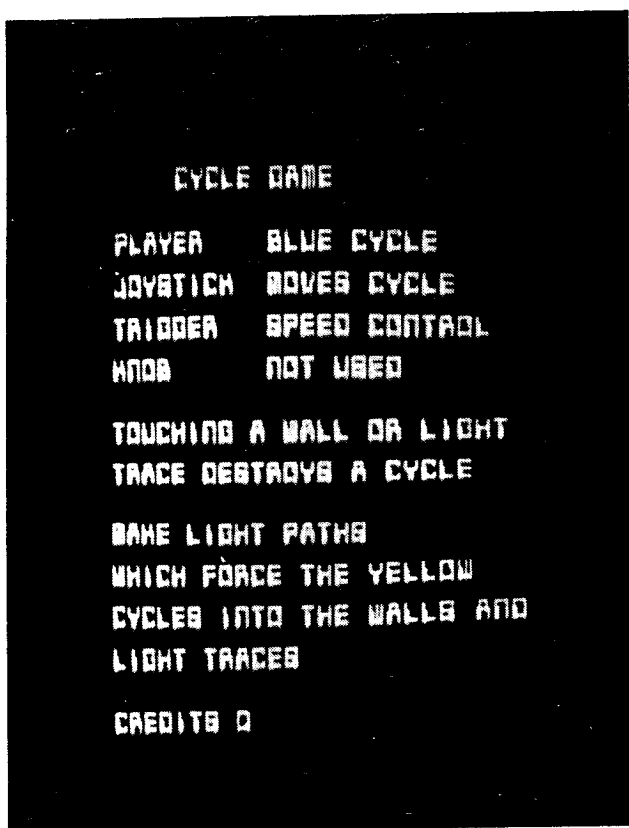
Attract Mode Display 10



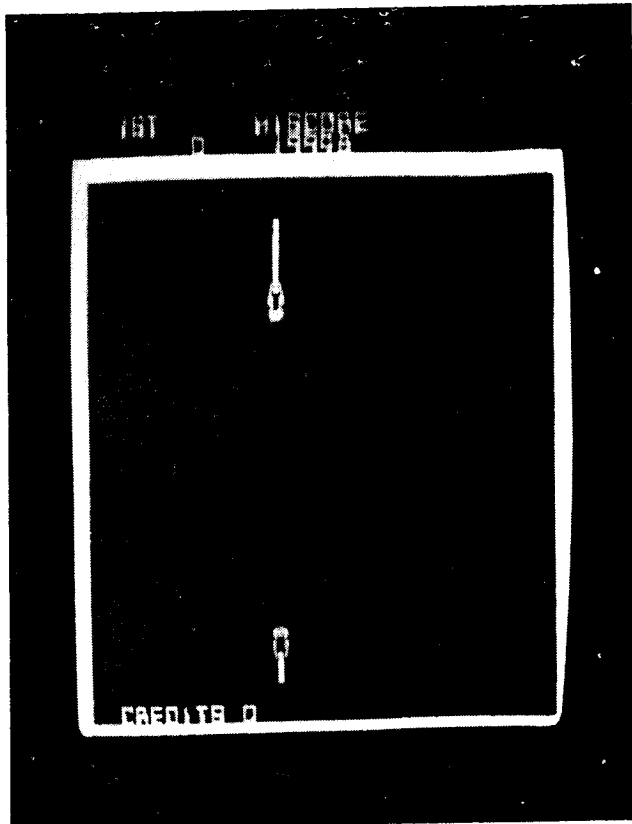
Attract Mode Display 9



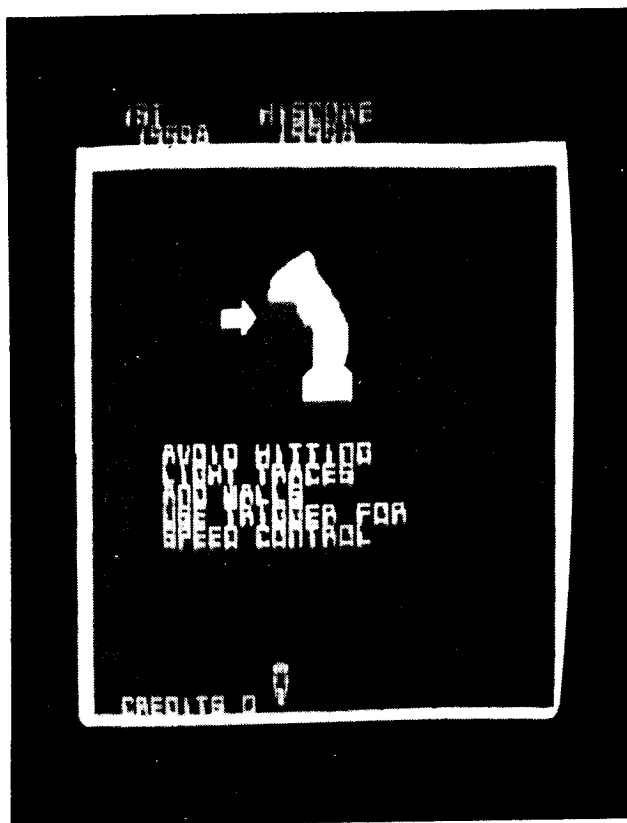
Attract Mode Display 11



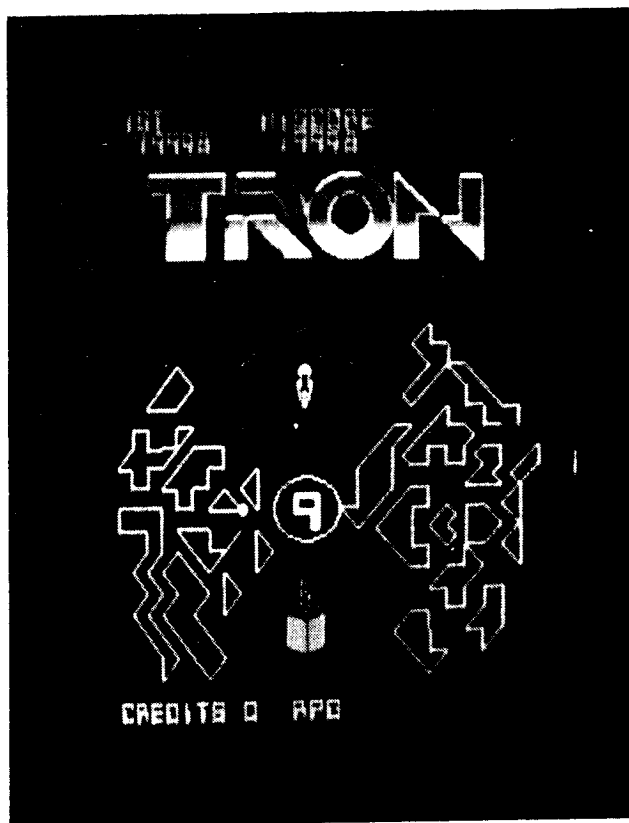
Attract Mode Display 12



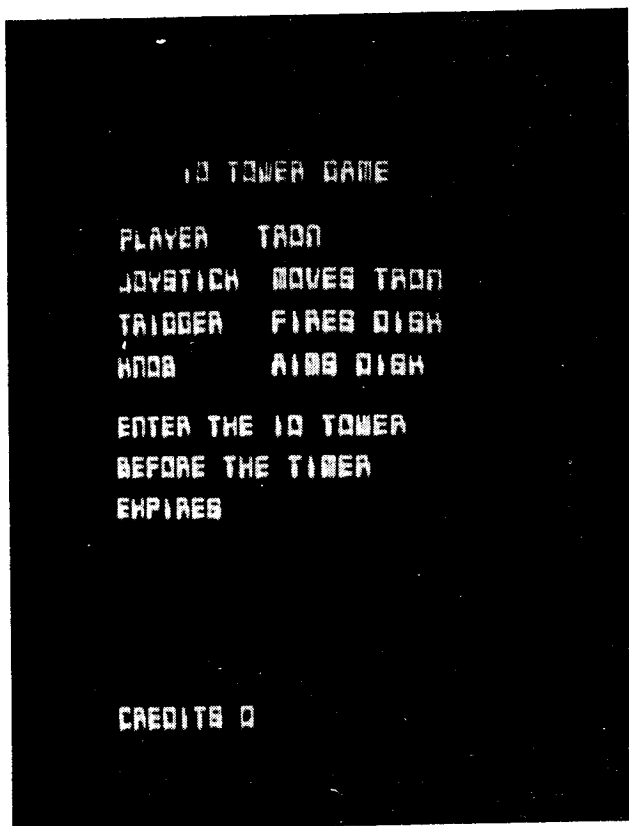
Attract Mode Display 14



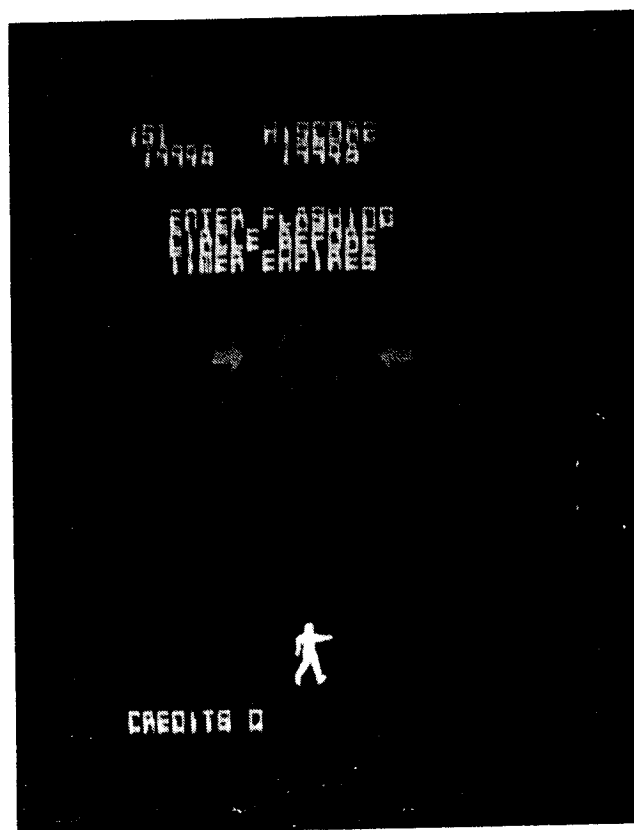
Attract Mode Display 13



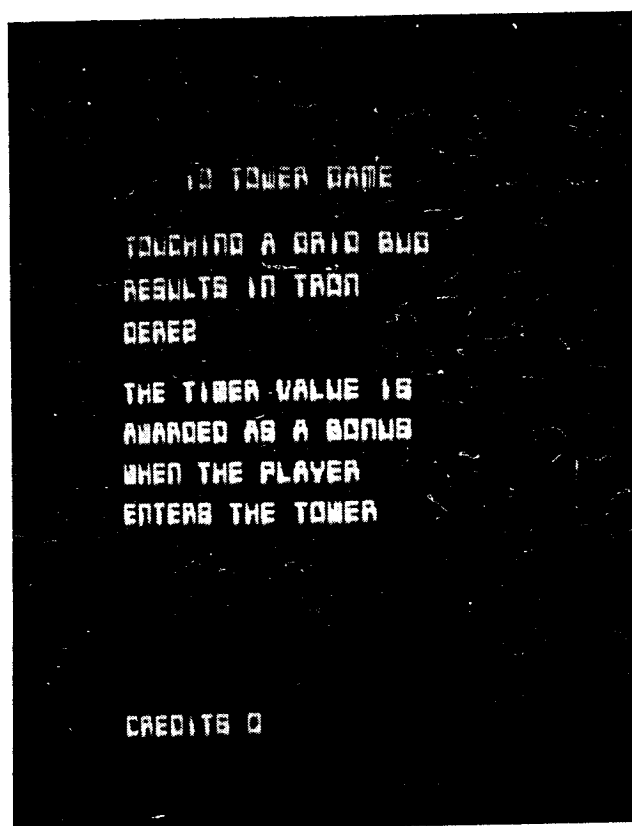
Attract Mode Display 15



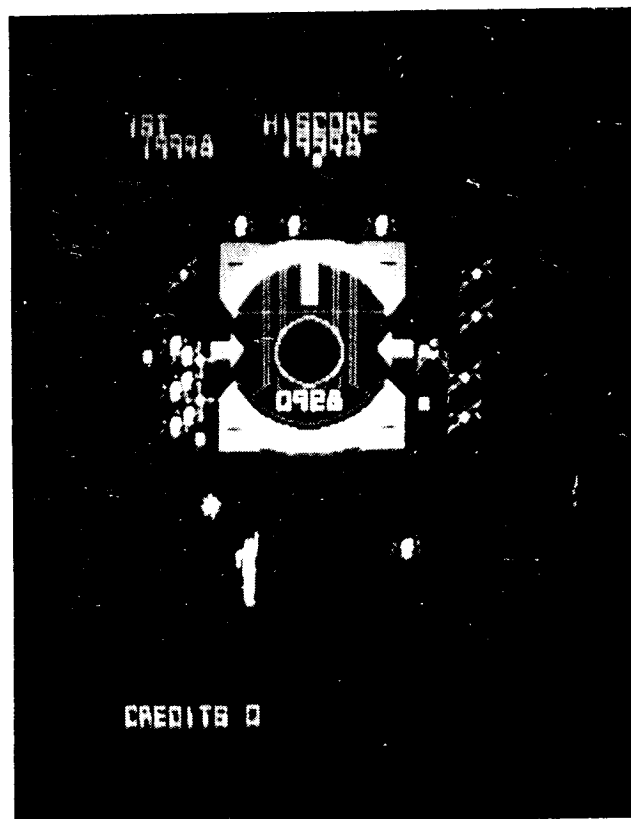
Attract Mode Display 16



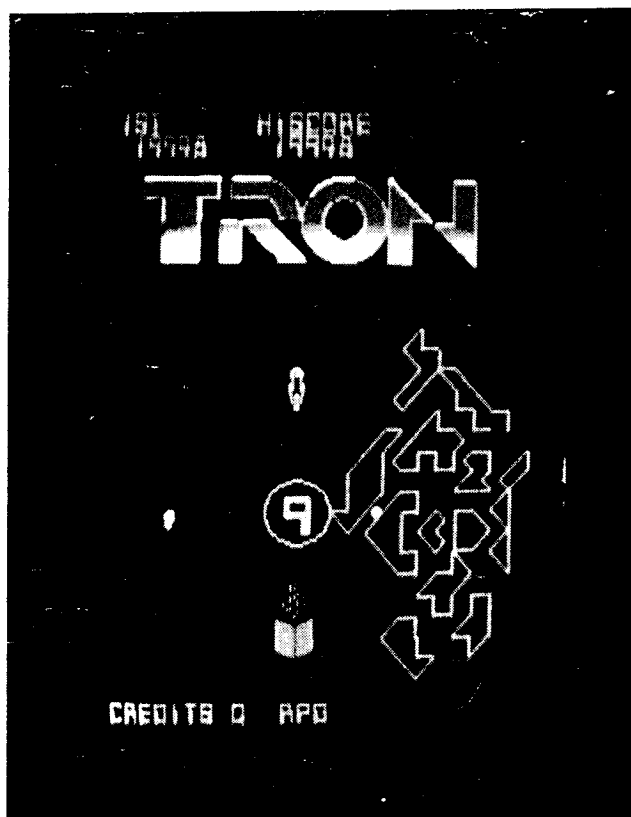
Attract Mode Display 18



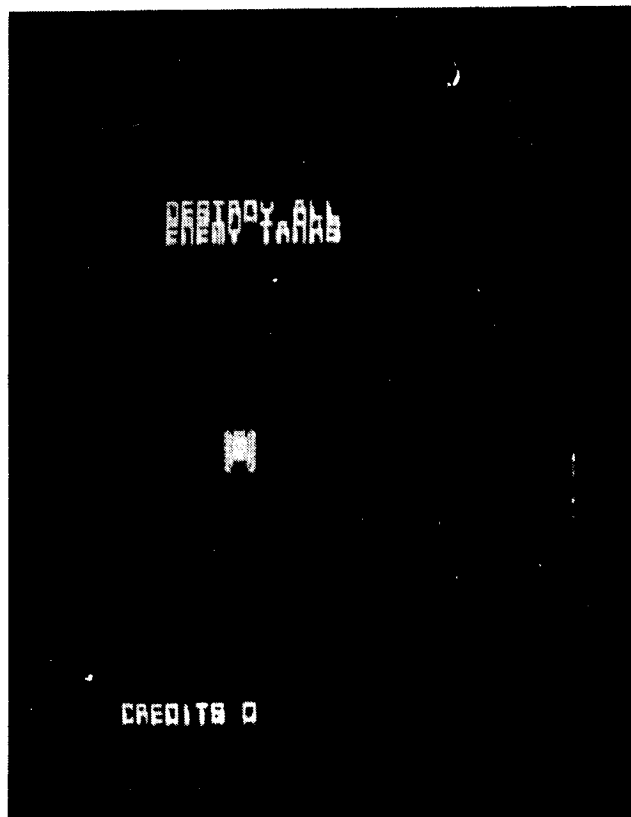
Attract Mode Display 17



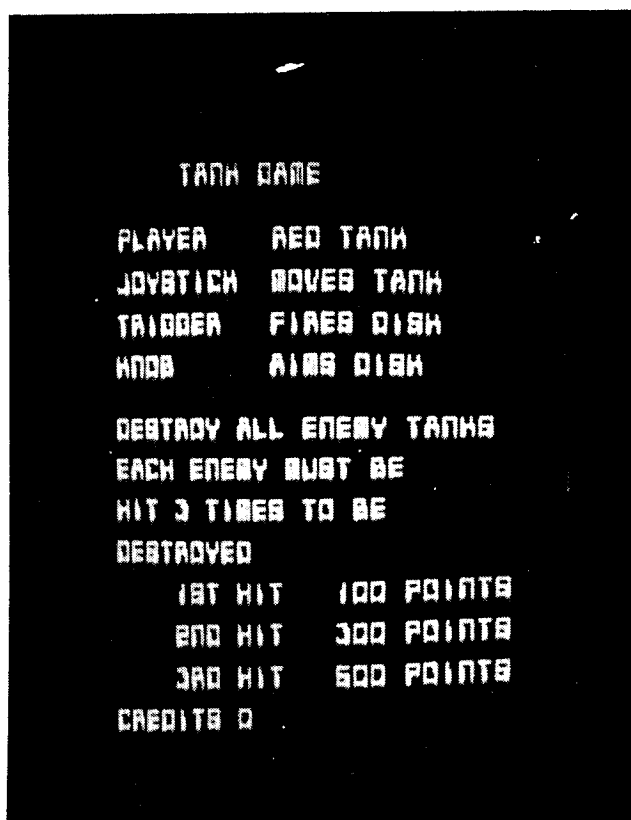
Attract Mode Display 19



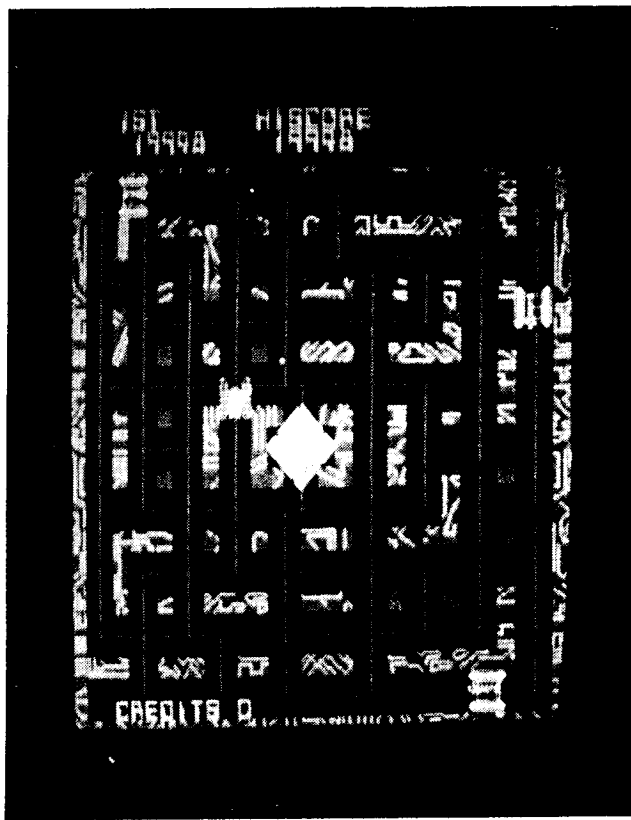
Attract Mode Display 20



Attract Mode Display 22



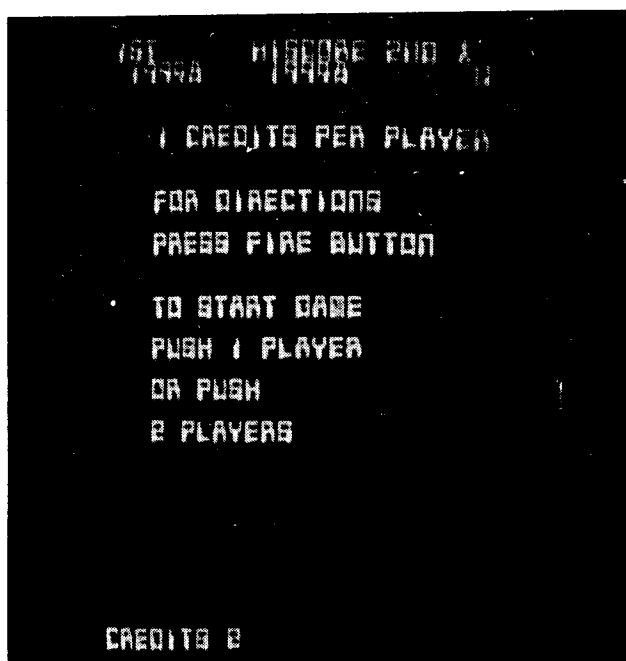
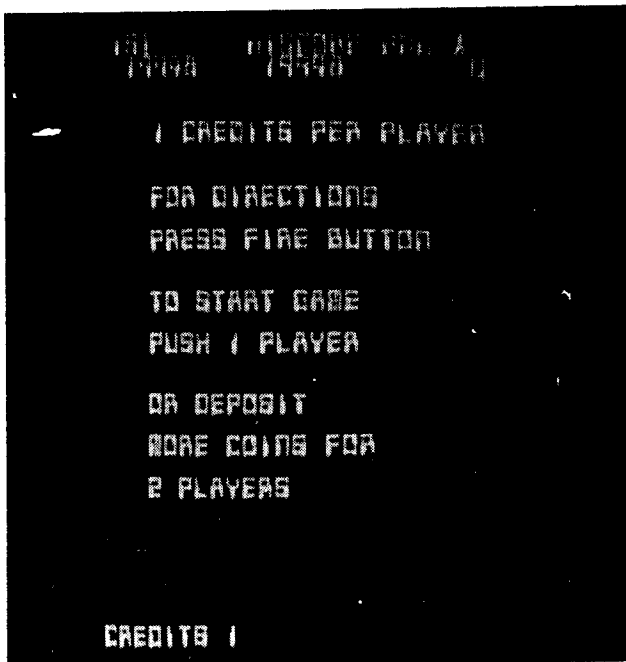
Attract Mode Display 21



Attract Mode Display 23

READY-TO-PLAY MODE

1. The Ready-To-Play mode starts when enough coins have been accepted for a 1 or a 2 player game.
2. The Ready-To-Play mode ends when either the "1 PLAYER" or the "2 PLAYER" push button is pressed.
3. In the Ready-To-Play mode, the game will give the following displays **centered** on the monitor screen.
4. If no START button is pressed, the game will hold the above "Instruction Message" display on the screen indefinitely.

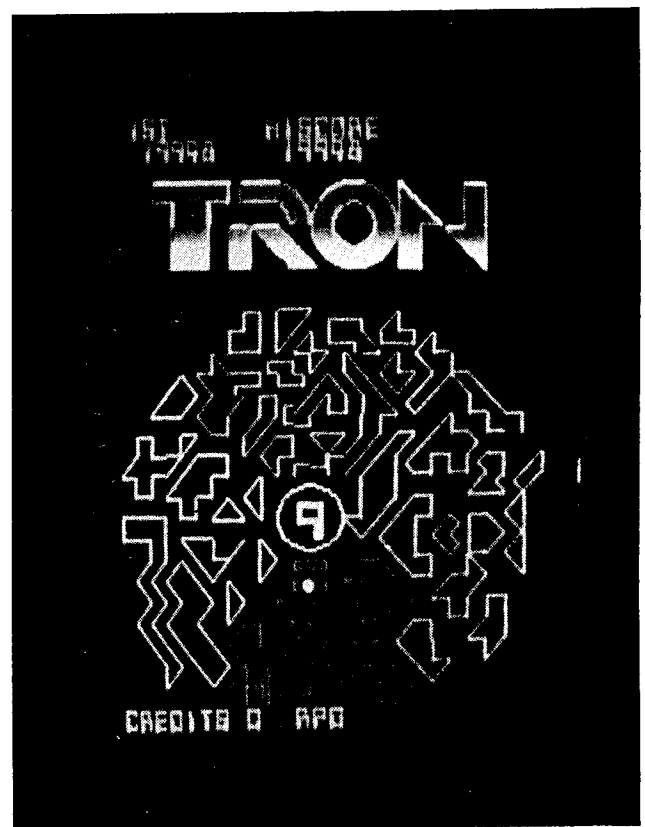


PLAY MODE

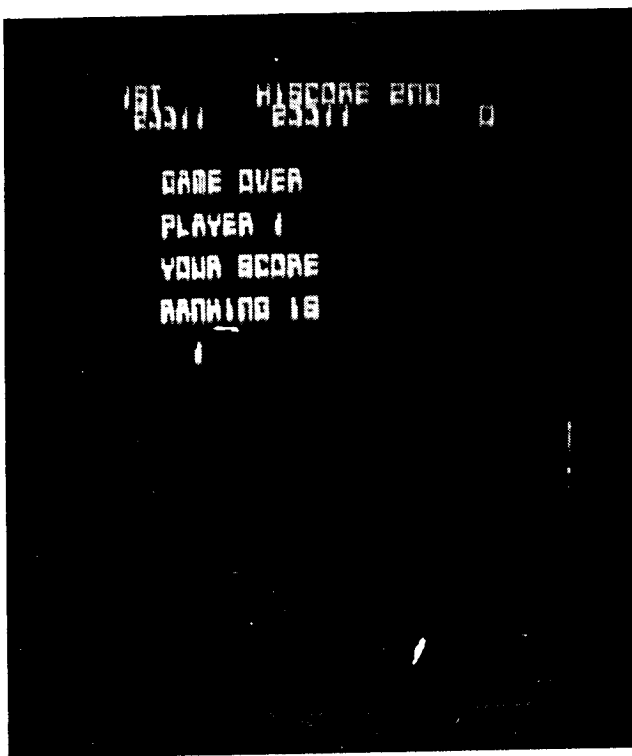
1. The play mode begins when either the "1 PLAYER" or the "2 PLAYER" start button is pressed. When this happens, the following is displayed **centered** on the monitor screen. With the cursor, you must select one of the colored areas at the left, right, top, or bottom of the screen before the timer in the center of the screen reaches zero (timer counts in seconds **BACKWARD** from 10 to 0). This is done by moving the joystick to the left, right, etc. If you do not make the selection in the 10 seconds allowed you, the game will pick for you.

There are four separate games that must be completed **BEFORE** you can advance to the next rack of the game. This timer/selection sequence is repeated after you have completed each game of a rack and after you have lost a player in one of the games of a rack.

Once any particular game in the rack you are playing has been completed successfully, you cannot play it again until you successfully complete the other remaining games of the rack you are in.



2. The Play mode ends when you have no more participants left to carry on with. When this happens, the following is displayed **centered** on the monitor screen.



3. TRON is made up of racks. There are 12 racks in all and the name of each is spelled out at the bottom center of the monitor screen when you are in it. The names of these racks are (from the easiest to the hardest, respectively): 1) RPG, 2) COBOL, 3) BASIC, 4) FORTRAN, 5) SNOBOL, 6) PL1, 7) PASCAL, 8) ALGOL, 9) ASSEMBLY, 10) OS, 11) JCL, and 12) USER. Each rack contains 4 **SEPARATE** games: "TANKS", "LIGHT CYCLES", "M.C.P. BLOCKS", and "GRID BUGS".

You **MUST SUCCESSFULLY COMPLETE EACH** of the separate games that make up a particular rack **BEFORE** you can be advanced to the next rack which will consist of the same 4 games — but they will be harder to complete successfully.

Game selection is random. For instance, if you always pull back on the joystick when you enter a new rack, you **WILL NOT** always get the same game. One time it could be Tank's, the next it might be Grid Bugs, and so on.

TANKS: In this game you are driving the light colored Tank. The knob on the control panel aims the Tank's gun. The joystick controls your Tank's direction of travel and the trigger on the joystick fires your Tank's gun. **ALL** enemy Tanks (dark blue or rust colored) must each be hit 3 times to be eliminated. However, they only have to hit your Tank 1 time to eliminate you.

The rust colored enemy Tanks **DO NOT** shoot at you but they do travel at a very fast speed and will try to ram you. If they (or a blue one for that matter) touch your Tank, you've had it.

LIGHT CYCLES: In this game you are driving the blue Light Cycle. Wherever you go with it you leave a trail of blue light. Your opponents are driving the Yellow Light Cycles (anywhere between 1 and 3 of them).

The knob on your control panel has **NO EFFECT** in this game. The joystick controls the direction your Light Cycle will go. The trigger on the joystick controls the speed of your Light Cycle. If you pull it, your Light Cycles speed will be approximately doubled. If you release it, you will slow down again.

You cannot stop or back up. You cannot touch their light trail, the walls, or your own light trail. If you do, you will be eliminated. You must out maneuver your opponents, causing them to run into the walls, your light trail, or their own light trail. This will eliminate them.

MCP BLOCKS: In this game you are placed under a rotating multicolored cylinder which has a cone on top of it. This descends on top of you and you cannot get out from underneath it. You have 2 choices: 1) shoot out all the blocks the descending multicolored cylinder is made of and then enter the cone at its top or 2) shoot a passageway through the blocks of the descending multicolored cylinder and enter the cone at its top through the passageway you just cleared. The latter of these two choices is very tricky to say the least. If you are touched by any part of the multicolored blocks in the rotating cylinder you will be disintegrated.

As above, the joystick controls Tron's movements to the left, right, and up or down. The knob on the control panel moves Tron's arm. Pulling the trigger on the joystick fires Tron's weapon in the direction that his arm is pointing.

GRID BUGS: In this game you are placed on a grid which has an I/O Tower (Input/Output Tower) at its center and Grid Bugs all around it. The I/O Tower is equipped with a counter that counts backward from 1000 to 0 at a high rate of speed. This is equal to about 35 seconds.

As above, the joystick controls Tron's movements to the left, right, and up or down. The knob on the control panel moves Tron's arm. Pulling the trigger on the joystick fires Tron's weapon in the direction that his arm is pointing.

The object of this game is to shoot as many Grid Bugs as you can during the allotted time while working your way to the entrance to the I/O Tower. You must enter the I/O Tower before the counter reaches zero. If you fail to enter the I/O Tower before the time runs out — or — if you are touched by a Grid Bug, you will be disintegrated.

4. **FIRST RACK PLAY:** Just after you push the 1 or 2 player button, the message displayed below is shown **centered** on the monitor screen:

"BONUS BASES AWARDED"
"AT 10000 POINTS"

Immediately after this, the game selection display is presented. After you select a game — or — after one is selected for you, the game appears on the screen and play begins.

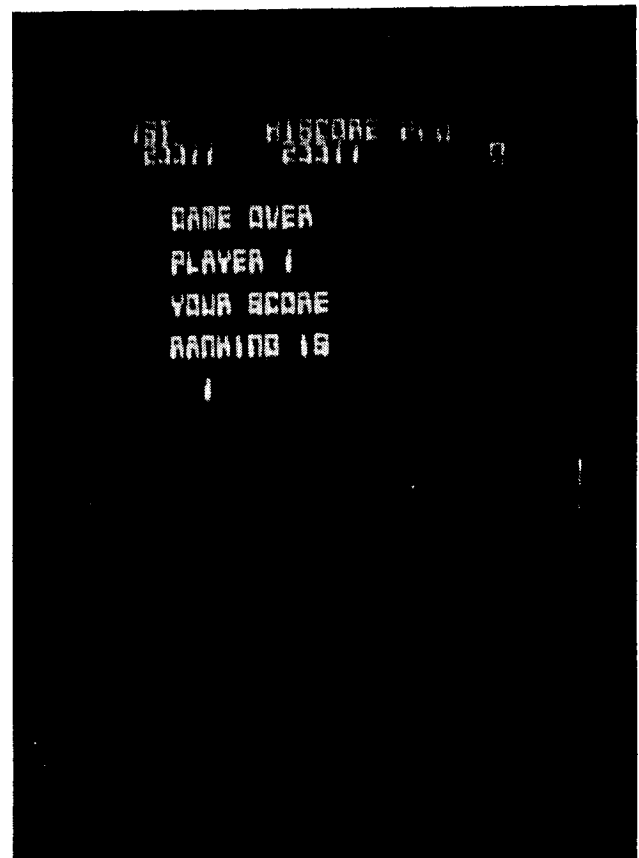
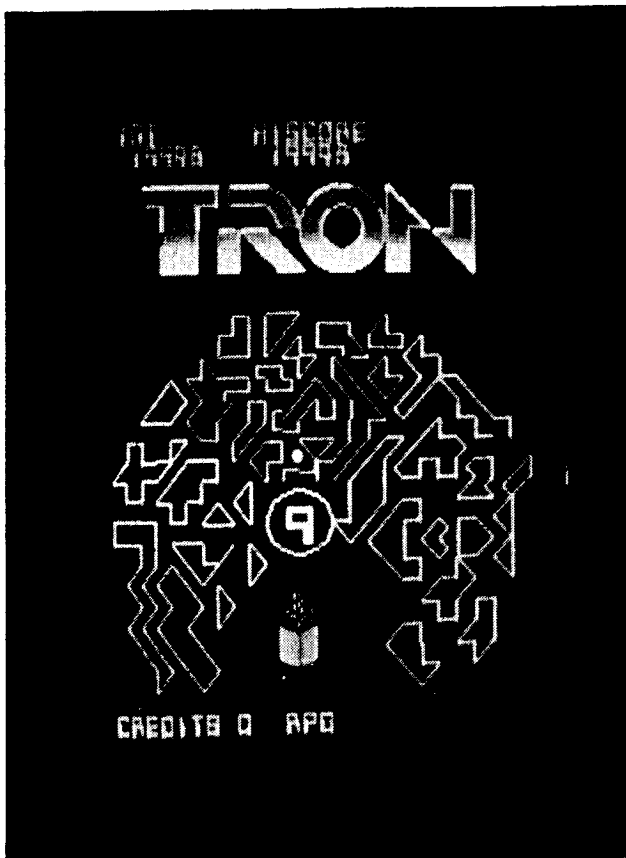
When you successfully complete a game, the game selection display is presented to you again. It will look similar to the one shown below. This time you will not be able to pick the game you just completed successfully. You are only allowed to pick one of the three remaining games.

When you lose a player in one of the games you selected, the game selection display is presented to you again. This time you have the option of picking the game where you just lost a player or of picking one of the games you have not tried yet.

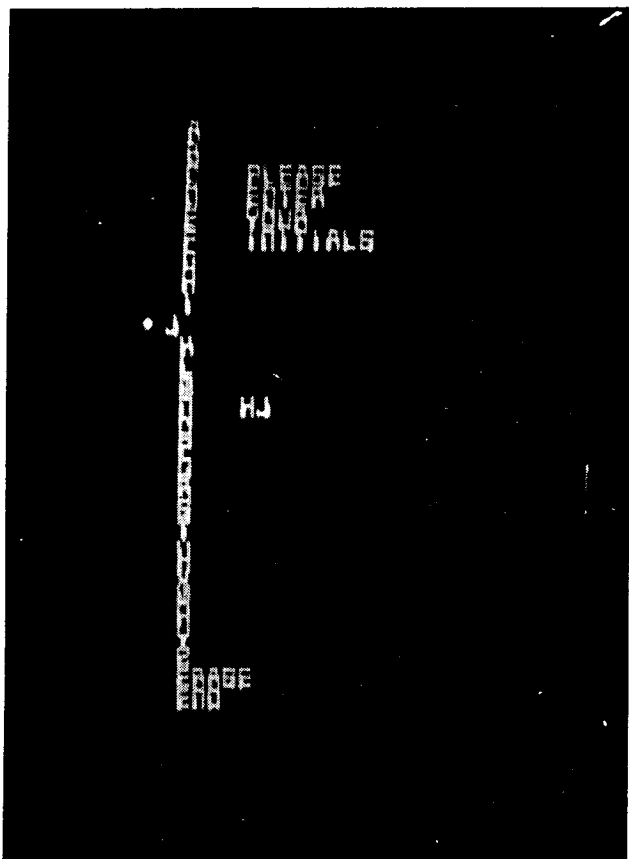
5. **SECOND RACK PLAY:** The Second Rack begins immediately after you have successfully completed the last of the 4 games in the preceding rack. This is indicated to the player by the presentation of a new game selection display which has a different level name spelled out at the bottom center of the monitor screen. The message about bonus bases is not repeated. The games of the Second Rack are selected in the exact same manner as in the First Rack. This pattern is repeated from this point on throughout the game.

6. As you improve your skills and become better and better at the game, advancing into the more difficult racks, you will notice that the number of opponents you have per game of each rack will increase and that they will become smarter, trying to trap you, sneak up behind you, catch you in a cross fire, etc.

When you are eliminated in one of the games and you have **NO MORE** reserve Trons, these words are displayed **centered** on the monitor screen.



If your score was high enough to become one of the ten best scores, the game will go into the High Score/Initial mode immediately after the above display. If your score is not high enough to cause the game to go into the High Score/Initial mode, it will either go to the Attract mode (if there are no more credits left in its memory) or into the Ready-To-Play mode (if there are still credits left in its memory). In the High Score/Initial mode the game gives a display which looks like the following:



By pulling back on the joystick, you can make the cursor move down the alphabet: "A", "B", "C", "D", etc. By pushing forward on the joystick, you can make the cursor move up the alphabet: "Z", "Y", "X", "W", etc.

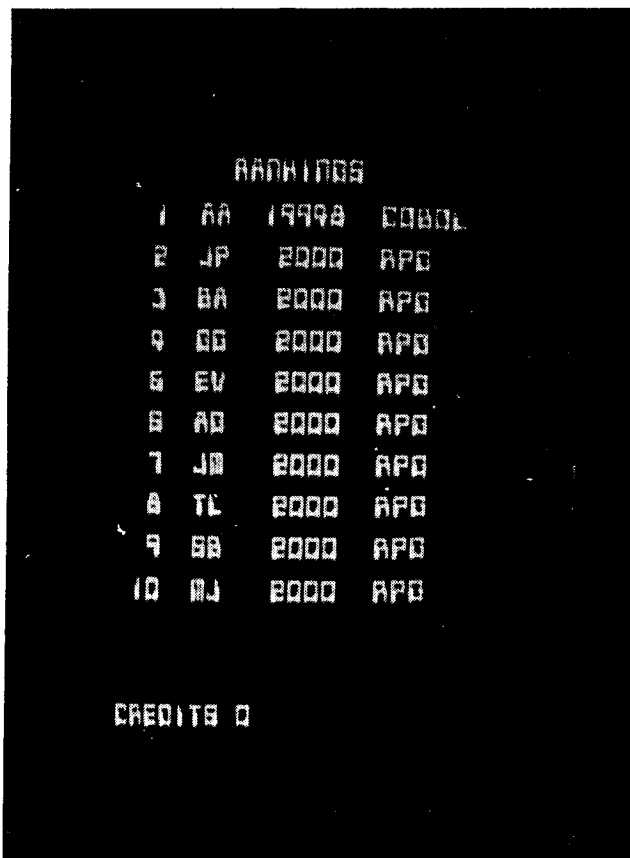
When you reach your initial, release the joystick and pull the trigger. Your initial is printed out below the on-screen instructions. If you do not wish to put your initials opposite your score, just pull the trigger two times. Two "A"'s will appear below the on-screen instructions. Or — you can push either the 1 or 2 PLAYER button to leave this mode immediately.

NOTE: If you make a mistake, you can erase the wrong letter by positioning the cursor opposite the "ERASE" word at the bottom of the line of alphabet characters and pulling the trigger. Then simply go back and print out the correct letter.

When you've printed out your last initial, move the cursor opposite the "END" word and pull the trigger to tell the game you are through printing out your initials. The game will then give either the Attract mode display or the Ready-To-Play mode display — depending on whether it has any credits still remaining on it.

NOTE: If you don't tell the game you are through printing out your initials as instructed above, the game will automatically go into one of the above displays after a short wait.

If you are wondering how well you did "point wise" as compared to the other 9 best players, the rankings display will show you. This display is part of the Attract mode sequence and it is also part of the "Instructions" sequence in the Ready-To-Play mode.



7. Most of the above holds true in the "2 PLAYER" mode also. But there are a few minor differences.

TWO PLAYER OPERATION

The Upright, Mini, and Cocktail Table models all have two player operation.

In the two player mode, the rules of play are the same as in the single player mode. There are some additional rules, however.

1. In the Upright and Mini models, the players must take turns at the controls.
2. In the Cocktail Table model, each player has his own set of individual controls. The picture will flip to face you when it is your turn. (When it is not your turn, your set of controls will have **NO** effect on the game.)
3. Your turn lasts until your participant is eliminated. At this point, the game will do one of several things depending on whether or not the eliminated participant was your last one or if you still have others remaining in reserve.

ELIMINATED PARTICIPANT — OTHERS REMAINING IN RESERVE

- ☐ The game stops and "PLAYER _____ UP" is displayed near the top of the monitor screen.
- ☐ Next, the other player's game selection display appears on the screen and play begins.

ELIMINATED PARTICIPANT — NO OTHERS REMAINING IN RESERVE

- ☐ Game displays:
 "GAME OVER"
 "PLAYER _____"
 "YOUR SCORE"
 "RANKING IS"
 "_____"

centered on the monitor screen.

- ☐ After the above display, if your score was high enough, it goes to the "HIGH SCORE/INITIAL" mode.

After this mode, "PLAYER _____ UP" and the other player's game selection display appears on the monitor screen. Play then begins for the other player.

If your score was **NOT** high enough to cause the game to go into the "HIGH SCORE/INITIAL" mode, the game will tell you what your "SCORE RANKING" is, display "PLAYER _____ UP", and the other player's game selection displays on the monitor screen. Then play begins for the other player.