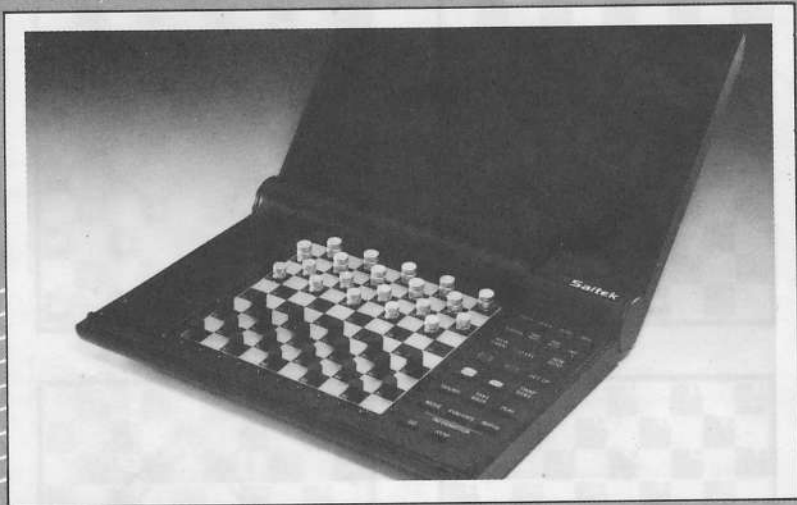


# COMPACT DAMES COMPUTER™



OWNER'S MANUAL  
MODE D'EMPLOI  
GEBRUIKSAANWIJZING

 **Saitek**™

Fig. 1

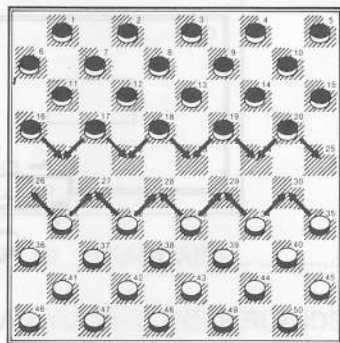


Fig. 2

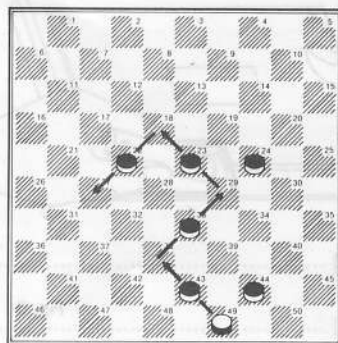


Fig. 3

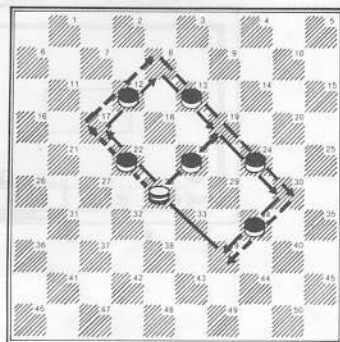
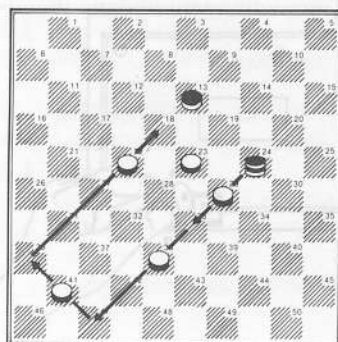


Fig. 4



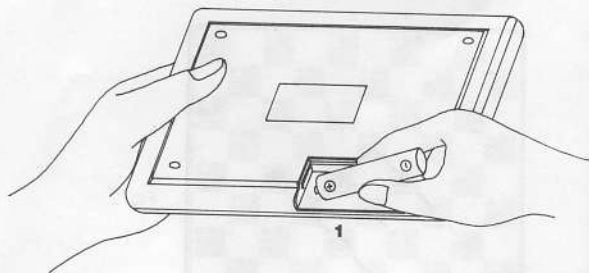
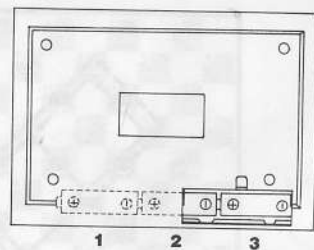
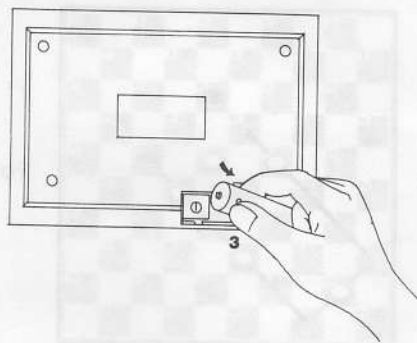
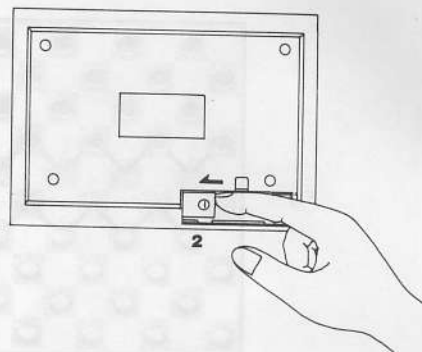


Fig. 5



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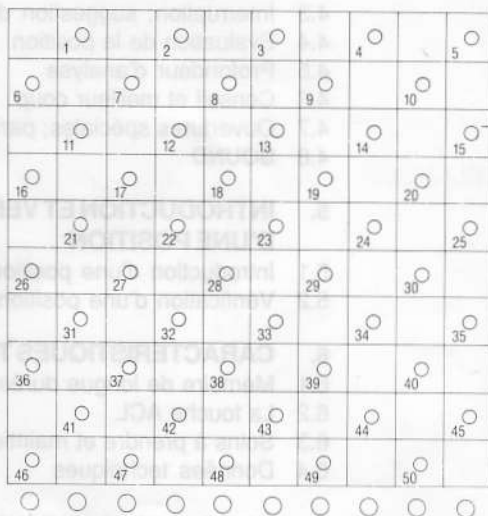
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# COMPACT DAMES COMPUTER

**Saitek™**



WHITE BLACK QUEEN MAN

POSITION TAKE BACK NON AUTO INFO

NEW GAME LEVEL NON AUTO

SET UP

SWAP SIDE

SOUND TAKE BACK PLAY

MOVE DEPTH EVALUATE

GO STOP

## KEYS, LIGHTS AND FEATURES

### Keys

- |                                |   |  |
|--------------------------------|---|--|
| 1 <b>GO</b>                    | Press to turn computer on   |  |
| 2. <b>STOP</b>                 | Press to turn computer off and store position in memory   |  |
| 3. <b>INFORMATION MOVE</b>     | Shows move under consideration; quick move suggestion   |  |
| 4. <b>INFORMATION DEPTH</b>    | Shows depth of search   |  |
| 5. <b>INFORMATION EVALUATE</b> | Shows how well you are doing  |  |
| 6. <b>SOUND</b>                | Press to turn sound off or on   |  |
| 7. <b>TAKEBACK</b>             | Retracts the last move (up to six moves)  |  |
| 8. <b>PLAY</b>                 | Execute next move; pressing this key when it is your turn causes the computer to play the next move for you, pressing it when the computer is thinking interrupts the thought process |  |
| 9. <b>SWAPSIDE</b>             | Allows you to play Black up the board   |  |
| 10. <b>Piece keys</b>          | White / Black men and Queens; used to verify and set up board positions   |  |
| 11. <b>SET UP</b>              | Allows you to set up a special position, add or remove pieces   |  |
| 12. <b>NEW GAME</b>            | Press to restart at the initial position  |  |
| 13. <b>LEVEL</b>               | Select playing strength (0-10)  |  |
| 14. <b>NON AUTO</b>            | Press once to force the computer to accept moves without replying to them; press a second time to return to normal  |  |

## Lights

- 15 Sensor Board** Each square has a sensor that registers piece movement (i.e. when you press a piece down on a square)
- 16. POSITION** Indicates **SET UP** has been pressed once; when on, pieces can be added or removed from the board
- 17 Take Back** Indicates a move is being taken back
- 18. Non Auto** When lit, the computer accept's moves from both sides without replying
- 19. Info** Indicates when computer is providing information on the depth of search, position evaluation or displaying the move under consideration

## **20. Man**

Indicates that the **MAN** key has been pressed when setting up or verifying a position or when a man is involved in taking back a move

## **21. Queen**

Indicates that the **Queen** key has been pressed when setting up or verifying a position or when a Queen is involved in taking back a move

## **22. White/Black**

Shows side to move; when the computer is thinking, the corresponding light flashes; also used to show color of pieces when setting up or verifying a position

## **23. Board lights**

Indicate moves; also used to verify board position, set the level of skill and show information on depth, evaluation and move under consideration

## Features:

Dames piece compartment  
**ACL** switch (in base of set)  
Battery compartment

## INTRODUCTION

Your **Saitek Compact Dames** computer is an easy-to-use, pocket electronic game. It uses the latest in sensor technology and efficient, low power electronics. The computer automatically registers your moves and uses 20 lights on the edge of the board to indicate its own moves. The Dames playing program is very strong at its top level — in 1987 it was the World Computer Dames champion — yet it also has a beginner's level, and nine levels to suit more advanced players. It operates on three AA/AM3/R6 batteries and its long-term memory keeps the last position of an interrupted game for up to 18 months.

## 1. THE GAME OF DAMES

Each side has 20 men that are placed on the dark squares of the first four rows of each side, the light-colored men ("White") closest to you. The object of the game is to capture all the opposing men (remove them from the board) or to block them so that they are unable to move.

When playing against the computer you normally

have the men on the side nearest you and can make the first move.

### 1.1 Moving the men

All men move diagonally forward onto an adjacent square. Each side therefore has a choice of nine moves on the first play. Play alternates, one move per turn (see fig. 1).

### 1.2 Captures

Men are captured by the short leap, diagonally **forward or backward** over an adjacent enemy man to an empty square immediately beyond. The captured man is removed from the board.

More than one capture can be made in a turn if the situation permits. Capturing is compulsory. The player can choose between alternative captures when the number of men captured in a sequence is the same. Otherwise the largest capture sequence must be chosen. If after making one or more captures a further capture is possible, then this must be made. In fig. 2, White has two possible captures (49-40 or 49-38). He must choose



49-38 as this also allows the capture of the enemy man on 33. Once at 29 he must continue the largest capture sequence via square 18 and 27.

If a player overlooks a capture and makes another move, the opponent can either demand a correction or let the move stand. Your computer never overlooks possible captures and insists that you complete the correct multiple capture sequence.

### 1.3 Queens

When a man arrives at the last row on the opposite side of the board it becomes a Queen. Replace the man with a Queen piece. If the piece arrives at the opposite side as a result of a capture, he must complete all possible captures **as a man**, and is not promoted.

A Queen moves and captures diagonally forwards or backwards **any number of squares**. The Queen can jump over and capture any enemy piece on a diagonal provided there is one or more squares on the other side of the captured man to land on. The largest capture sequence must always be chosen. A Queen may change from one diagonal to another during a capture sequence.

In fig. 3, one of many capture sequences to be considered by White is shown by the dotted line. This sequence is illegal, as it leaves one man on 23. The correct longer sequence, shown by the solid line, captures all men.

Captured men are removed from the board only after the capture sequence has been completed. Fig. 4 shows a sequence of Queen captures. The man at 23 cannot be taken because 29 has not been removed. The black Queen will now fall to the man on 23.

### 1.4 The end of the game

The winner of the game is the one whose opponent either has no more pieces or whose pieces are blocked and have no more legal moves.

A game is considered a draw when one side has one Queen only and the other side has three or less Queens and a win is not achieved within 10 moves.

(Note that in this situation the computer allows you to continue playing if you wish.)

## 2. GETTING STARTED

Sometimes your computer may appear to be playing irregularly when in fact it is obeying the rules. If you get stuck, always check first to see if another capture is possible. If in doubt, you can always identify the longest capture sequence by asking the computer (press **PLAY**).

### 2.1 Batteries

The computer requires three standard AM3/R6/AA batteries. We recommend the use of alkaline batteries, as they provide a longer playing time. Remove the cover of the battery compartment and insert the batteries as shown in fig. 5.

When you first switch the computer on, the lights flash sequentially. Press **NEW GAME**.

**Note:** If at any time you encounter difficulties in getting the computer to respond to your moves, you may clear its memory by pressing the **ACL** key for a few seconds to reset the computer (activate this key at the rear of the computer with a pointed object, e.g. a paper clip).

### Quick start

1. Press **GO** to switch on the computer.
2. Set up pieces — white pieces closest to you.
3. Press **NEW GAME**.
4. Enter moves as described below.
5. Press **STOP** to switch the computer off.

### 2.2 Making moves

To make a move, press down on the piece you wish to move (this is its "FROM" square) then place it on its destination square (the "TO" square) and press down again. Each time you press a piece you should hear a short beep. If you change your mind before putting the piece down, replace it with a press on its FROM square.

When you have entered a move, the **BLACK** light begins to flash, indicating that the computer is working on its reply. When it has decided what to play, it indicates the horizontal row and vertical column of the piece the computer wishes to move. Press the piece down in its square. The computer now shows you where the piece must go. Move the piece to the square indicated and press it down to complete the move.

## 2.3 Special moves

**Promotion:** A man automatically becomes a Queen when it reaches the other side, unless it has further captures.

**Captures:** To make a capture, press down on the capturing piece, jump over the captured man and press down again. Now remove the captured piece (there is no need to press the captured piece square). For a multiple capture, now jump over the next piece and press again.

Computer captures work in the same way. If multiple captures are possible, the lights indicate the moves of the capturing piece until all possible captures have been completed.

If a Queen can capture two pieces, separated by two or more squares on the **same** diagonal, it must jump over the first piece and land immediately adjacent to the next piece before continuing the capture sequence.

Where a capture is followed by a change in direction, the Queen must land on the square common to both diagonals before continuing the move. (See fig. 4.)

## 2.4 Illegal moves

If you attempt to make an illegal move, the computer sounds an error beep and rejects the move. You can check that the move has been rejected by looking at your color light, which remains on. This indicates it is still your turn to move. When you do not correctly complete a multiple capture sequence, the computer keeps the FROM square's lamps on. To correct the move, replace the pieces where they were and press the FROM square. You may now restart your move.

## 2.5 Game signals

When either side wins, your computer beeps four times in a row. Your computer is not familiar with the draw (by three-fold repetition rule or by insufficient material) so if this occurs you must claim a draw yourself.

## 2.6 New game

To start a new game, press **NEW GAME** when it is your turn to move. The level setting remains unchanged.

### 3. LEVELS OF SKILL

When playing against the computer you may set its level of skill to suit your playing ability. There are 11 levels.

The first four are designed for casual play and the average response time on each level is as follows:

Level	Average response time per move
0	beginner level
1	1 second per move
2	2 seconds per move
3	5 seconds per move



In these levels (except 0) the computer is programmed to try to anticipate various moves you might make and to calculate its responses for each of them while you are thinking. Thus you may very often get an **instant response** to your moves. The above times are averaged for non-instant moves so that the computer generally plays faster over a large number of moves. Please note that the average time on individual moves also depends on the stage of the game and the tactical complexity of the current position.

The next six levels are for tournament play:

- |   |                                |
|---|--------------------------------|
| 4 | 8 minutes for the entire game  |
| 5 | 15 minutes for the entire game |
| 6 | 65 moves in 60 minutes         |
| 7 | 65 moves in 90 minutes         |
| 8 | 50 moves in 90 minutes         |
| 9 | 50 moves in 120 minutes        |

The last is a special level:

#### 10 Infinite Level

(The computer goes on thinking until you interrupt it (by pressing **PLAY**) or it runs out of memory. In complicated positions this can take many days.

### 3.1 Changing the level

When you first press **LEVEL** the computer beeps, and lights on the right of the board indicate which level is set. Press **LEVEL** repeatedly until the light corresponds to the level you want. The level may be changed at the beginning or at any time during a game (but only when it is your turn to move). If you stop pressing **LEVEL**, after two seconds the computer assumes you have finished selecting the level. It then beeps and returns to normal.

## 4. MORE FEATURES

All the things we have seen so far are enough to give you countless hours of pleasure with your computer. You can play straight games against it, correct mistakes and adjust the level of skill to match your needs. But there are many other things the computer can do that make it even more fun to use. This chapter deals with these features individually.

### 4.1 TAKE BACK

When it is your turn to move you may take back (erase) the last one, two or even up to six ply (moves) by pressing **TAKE BACK** each time. The computer lights the TAKE BACK lamps and shows you which piece to move; press it and pick it up. Then it shows you which captured pieces to replace, if any (press them on their squares), with two lamps for the square and two for the piece (WHITE or BLACK, QUEEN or MAN). Finally it shows the FROM square of the piece on the move. Press it down: the TAKE BACK lamp goes out. If you get stuck, first press the squares indicated until the TAKE BACK lamp goes out, then check where the pieces are (section 5.2).

### 4.2 Changing sides; move suggestions

If you wish to change sides (i.e. colors) with the computer, press **PLAY** instead of making your move. The computer plays the next move for you and you can go on playing for the other side.

You can change sides as often as you like during the course of a game. You can even press **PLAY** after every move and make the computer play an entire game against itself. The **PLAY** key is especially useful when you need help and want the computer to suggest a move for you, or when you wish to identify the largest capture sequence.

If you want to play Black up the board, press **NEW GAME**, **SWAP SIDES** and **PLAY**. Your computer makes the first move as White is playing down the board.

### 4.3 Interrupt

When the computer is thinking (WHITE or BLACK light flashing), you may interrupt it by pressing **PLAY**. This causes it to stop computing and play the best move it has found so far.

#### 4.4 Information evaluate

You can see who is winning according to the computer if you press **INFORMATION EVALUATE** while the computer is thinking about its move. The evaluation is displayed on the row of lamps at the bottom of the board. From the player's point of view the further to the right the lamp is, the better the position. See table.

Lamp	Meaning
(left)	very bad position (for the user) significantly less men one man less positionally bad slightly inferior position slightly better position positionally good one man more than the computer many men more than the computer
(right)	very good position

#### 4.5 Information depth

While your computer is thinking, you can press **INFORMATION DEPTH** to see how many ply deep

the computer has calculated so far. One of the lamps to the right of the board shows the number (from 1-10, where 10 means "10 or more").

#### 4.6 Information move

To see what move the computer is considering, press **INFORMATION MOVE**. The coordinate lamps flash first the FROM square and then the TO square alternately.

#### 4.7 Non auto: special openings; play with a friend

Your computer has a special function that allows you to enter moves or to force the computer to play a certain continuation. Press **NON AUTO**; you may now enter moves at will. The computer keeps track of the board position and makes sure that the moves are legal. To return to normal play, press **NON AUTO** a second time.

Would you like to try a special opening? The latest theory? Press **NEW GAME** and set up the men, use **NON AUTO** to play the special moves, then turn off **NON AUTO** and play on against the computer.

**NON AUTO** is useful when you are playing a game with a friend. The computer acts as a referee and ensures that all captures are fully completed. Each side can even ask for advice by pressing **PLAY**.

#### 4.8 Sound

If the computer's beeps are distracting you or others during a game, turn off the sound by pressing **SOUND**. Pressing the key again turns it back on (you hear a beep confirming this). Watch the indicator lights and press men and keys carefully when playing without sound.

### 5. SETTING UP AND VERIFYING

In this chapter you learn how to set up positions for further analysis and play, how to verify the board position at any time, and how to check that moves are legal.

#### 5.1 Setting up a special position

If you wish to set up a special position first press **SET UP**. The POSITION lamp will light up and you may move, add or remove pieces from the current

board position. (If the position you want to set up contains only a few pieces, press **NEW GAME** after pressing **SET UP** to clear the board of all pieces.)

— **To remove a piece:** press it down on its current square and remove it from the board.

— **To move a piece:** press it down on its current square, move it to its new position and press it down again.

— **To add a new piece:** press the appropriate piece key and press the new piece on an empty square.

After you have set up the pieces, select the color to move by pressing **WHITE QUEEN** or **BLACK QUEEN**. Then press **SET UP** again to return to normal. It is a good idea to always check the color to move (WHITE or BLACK lamps) and verify the position (see 5.2) after setting up a position. Do not enter illegal positions as this will produce unpredictable results.

Example: Set up a position with a White Queen on square number 3, a White man on 10, a Black

Queen on 45, and a Black man on 44, and it is White's turn to move. First press **SET UP** (POSITION lamp lights up) and **NEW GAME** to clear the board. Press **WHITE QUEEN** and press the White Queen on square 3, **WHITE MAN** and press the White man on 10, **BLACK QUEEN** and the Black Queen on 45, **BLACK MAN** and the Black man on 44. Now press **WHITE QUEEN** to tell the computer that it is white's turn to move, then **SET UP** to finish (POSITION lamp goes out).

## 5.2 Verifying a position

If you upset the men or for other reasons are not sure that the board position is correct, the computer shows you the proper location of each piece.

To verify the board position press the **MAN** or **QUEEN** piece key of either side when it is your turn to move. The lamp for that color and type of piece lights up, and the lamps on the side of the board come on to show you where the first of those pieces is located. Press the piece key again to see if there are any more pieces of that kind on the board. When the computer finds no more of the pieces selected, the piece coordinate

lamps will go out, and the **WHITE/BLACK** lamps will indicate whose turn it is.

## 6. TECHNICAL DETAILS

### 6.1 The long-term memory

Your computer allows you to interrupt a game at any stage (even when it is computing a move) by pressing **STOP**. Play is stopped at that point and battery power conserved. The computer remembers the position and all the settings and resumes play when you press **GO**. With a fresh set of alkaline batteries the position is retained for up to 18 months.

### 6.2 The ACL key

If the computer locks up because of static discharge or some other reason, press **STOP** and then use a pencil or some other sharp object to press the **ACL** key in the base of the cabinet for a few seconds. This resets the computer.



### 6.3 Care and maintenance

Your computer is a precision electronic device. Do not subject it to rough handling or expose it to extreme temperatures or moisture. Do not use chemical agents to clean the set as these may damage the plastic. Never leave weak or dead batteries in the unit, as they may leak and cause damage.

### 6.4 Technical specifications

Microprocessor: 6301Y  
Processor speed: 8 MHz

Program memory: 16 Kbytes  
RAM memory: 256 bytes  
Memory retention: 18 months  
LED lamps: 28 red  
Keys: 17  
Power consumption: 90 mW  
Batteries requirement: 3 AA, AM3, or R6  
Dimensions: 172 x 135 x 27 mm

Weight: 0.25 kg (without batteries)

**Saitek reserves the right to make technical changes without notice in the interest of progress.**

### 7. Troubleshooting guide

Most problems are caused by weak or improperly inserted batteries. Before trying anything else, check the batteries, and if necessary, re-insert or replace them.

SYMPTOMS	POSSIBLE CAUSES	WHAT YOU SHOULD DO
1. Does not work	Power reset problem	Press <b>ACL</b> in the base of the computer for five seconds with a pin, paper-clip or similar object
	Batteries weak	Replace batteries
	Batteries inserted incorrectly	Check battery orientation
2. All lamps light up together	Power-on reset problem or static discharge	Press <b>ACL</b> for five seconds
	Batteries weak	Replace batteries

<b>SYMPTOMS</b>	<b>POSSIBLE CAUSES</b>	<b>WHAT YOU SHOULD DO</b>
3. Computer 'freezes' in the middle of a game	Static discharge	Press <b>ACL</b> for five seconds
	Batteries weak	Replace batteries
4. Computer makes illegal move or computer cheats	It has made a promotion	Make sure you know rules; use piece keys to confirm where the pieces are, then <b>TAKE BACK</b> and re-verify the positions.
	The pieces are on the wrong squares	Make the computer's move, and use the <b>piece keys</b> to confirm position (see section 5.2)
5. Computer does not accept your move in the middle of a game	Computer locks up	See section 6.2
	The move is illegal	Is it your turn? Check the color lamps
	There is a longer capture sequence	Use the <b>piece keys</b> to confirm where the pieces are; press <b>PLAY</b> to let the computer play the longest capture sequence for you
6. A man moves like a Queen	The man has been promoted	Use <b>piece keys</b> to confirm position; <b>TAKE BACK</b> as far as needed and replay the game
<b>7. Computer doesn't play</b>		
7.1 WHITE or BLACK lamp stays on	It has not started computing	Press <b>PLAY</b> to start it; if the <b>NON AUTO</b> lamp is on, read section 4.7

<b>SYMPTOMS</b>	<b>POSSIBLE CAUSES</b>	<b>WHAT YOU SHOULD DO</b>
7.2 WHITE or BLACK lamp flashing	The computer is still thinking; in complex positions it may take many times longer than the average response time	Verify the level, check section 3.1; to interrupt the thinking process press <b>PLAY</b>
8. Computer is silent	The sound is off	Press <b>SOUND</b> again to turn it on
9. Lamps do not come on	Lamp dead	Consult your Service Centre
10. Board square or key does not respond correctly when pressed, or lamps do not come on correctly	Faulty contacts; press each square in turn to verify board contacts; the proper lamps should light up with a beep	Consult your Service Centre

We hope you enjoy your **Saitek** Compact Dames Electronic game.

# Authorized Service Centers

USA	USA	USA	USA
Atlanta	Atlanta	Atlanta	Atlanta
Boston	Boston	Boston	Boston
Chicago	Chicago	Chicago	Chicago
Dallas	Dallas	Dallas	Dallas
Denver	Denver	Denver	Denver
Houston	Houston	Houston	Houston
Los Angeles	Los Angeles	Los Angeles	Los Angeles
Memphis	Memphis	Memphis	Memphis
Minneapolis	Minneapolis	Minneapolis	Minneapolis
New York	New York	New York	New York
Phoenix	Phoenix	Phoenix	Phoenix
Pittsburgh	Pittsburgh	Pittsburgh	Pittsburgh
Portland	Portland	Portland	Portland
San Francisco	San Francisco	San Francisco	San Francisco
Seattle	Seattle	Seattle	Seattle
St. Louis	St. Louis	St. Louis	St. Louis
Tampa	Tampa	Tampa	Tampa
Washington	Washington	Washington	Washington
Wichita	Wichita	Wichita	Wichita
Winnipeg	Winnipeg	Winnipeg	Winnipeg
Yokohama	Yokohama	Yokohama	Yokohama
Amsterdam	Amsterdam	Amsterdam	Amsterdam
Berlin	Berlin	Berlin	Berlin
Bombay	Bombay	Bombay	Bombay
Buenos Aires	Buenos Aires	Buenos Aires	Buenos Aires
Calcutta	Calcutta	Calcutta	Calcutta
Canton	Canton	Canton	Canton
Chennai	Chennai	Chennai	Chennai
Colombo	Colombo	Colombo	Colombo
Dhaka	Dhaka	Dhaka	Dhaka
Guangzhou	Guangzhou	Guangzhou	Guangzhou
Hong Kong	Hong Kong	Hong Kong	Hong Kong
Kuala Lumpur	Kuala Lumpur	Kuala Lumpur	Kuala Lumpur
London	London	London	London
Lyons	Lyons	Lyons	Lyons
Manila	Manila	Manila	Manila
Mumbai	Mumbai	Mumbai	Mumbai
Nagoya	Nagoya	Nagoya	Nagoya
Osaka	Osaka	Osaka	Osaka
Paris	Paris	Paris	Paris
Seoul	Seoul	Seoul	Seoul
Singapore	Singapore	Singapore	Singapore
Taipei	Taipei	Taipei	Taipei
Tokyo	Tokyo	Tokyo	Tokyo
Yokohama	Yokohama	Yokohama	Yokohama

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