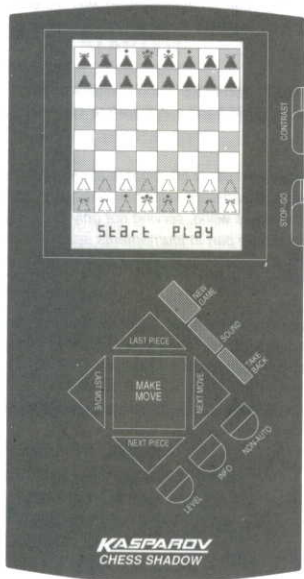


KASPAROV CHESS SHADOW INSTRUCTION MANUAL



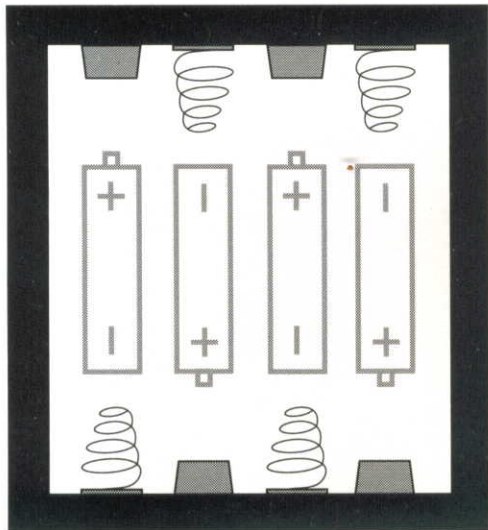
QUICK START

For those of you who cannot stand the suspense of owning Kasparov Chess Shadow and having to read this manual before you use your new chess computer, here's a Quick Start Procedure especially for you!

1. Insert four batteries into the computer, as shown in the diagram, making sure to observe the correct polarity.
2. Push the **STOP-GO** switch to **GO** to turn the computer on. If the computer does not respond due to static build-up, press the **ACL** key, as described in Section 1.1.
3. Press **NEW GAME**. Kasparov Chess Shadow is now ready to play, with all the pieces in their starting positions on the LCD chessboard.
4. Press **NEXT PIECE** until the piece you want to move flashes on the display.
5. Press **NEXT MOVE** until the move you want to make shows on the LCD information line below the chessboard.
6. Press **MAKE MOVE** to enter your move into the computer. Chess Shadow will now automatically make its move.
7. Make your next move as described above — enjoy your first game!



AAA/AM4/RO3



Dear Fellow Chess Player,

When computers were first invented just four decades ago, few people realized that mankind was witness to the most important single development of our time. Today computers have become freely available, and in a few years there will be a computer in almost every household.

Saitek (formerly SciSys) has asked me to write a few words to welcome you to the world of chess playing computers. I have been personally associated with the company since 1983 and can therefore speak about its products from experience.

Until recently chess computers were regarded as simple toys which would never be capable of providing serious opposition for the enthusiast. The rapid advance of technology and programming skills have certainly changed that. Today chess computers have become an accepted part of the chess world, serving not only to introduce new players to the world's finest game, but also encouraging them to take part in tournaments against human opponents. Chess computers can teach you all the basics of the game and keep up with you even if you go on to become a top club player.

Saitek has been at the forefront of this development and has been responsible for many of the most interesting innovations. It is the only chess computer company under Swiss management, and I look forward to a long and productive relationship with Saitek and with you who have chosen their computers.

I wish you enjoyment and satisfaction from your Kasparov chess computer — and who knows, maybe we'll meet in combat across the chessboard in the future!

Good luck!

A handwritten signature in black ink that reads "Kasparov". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Garry Kasparov

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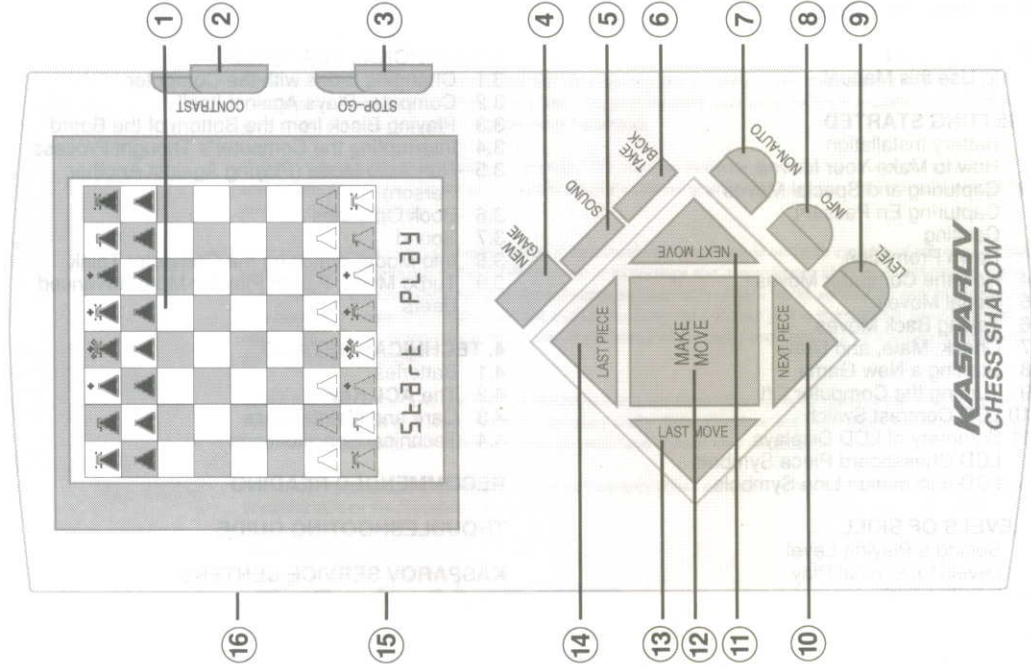
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RECOMMENDED READING

TROUBLESHOOTING GUIDE

KASPAROV SERVICE CENTERS



KEYS AND FEATURES

- ① **LCD DISPLAY:** Gives you a visual representation of the board, and a variety of information during all phases of the game.
- ② **LCD CONTRAST SWITCH:** Allows you to change the contrast on the LCD display.
- ③ **STOP-GO SWITCH:** Push to turn the computer on or off. Remembers the current position for up to two years. Play is resumed at the point where the game was switched to **STOP**.
- ④ **NEW GAME:** Press to reset the initial position for a new game. This key is slightly recessed to prevent unintentional key presses.
- ⑤ **SOUND:** Press to turn the sound on or off.
- ⑥ **TAKE BACK:** Press to take back one ply (a move for either side); take back up to a maximum of six ply.
- ⑦ **NON-AUTO:** Press to switch between Auto Mode (Computer vs. Player) and Non-Auto Mode (Player vs. Player).
- ⑧ **INFO:** Press to watch the computer's thought process during its move.
- ⑨ **LEVEL:** Press to select your desired level of play. Hold down **LEVEL** to cycle through all levels quickly.
- ⑩ **NEXT PIECE:** Press repeatedly to show all pieces which can make legal moves for the side to move (from the upper left to the lower right of the board). Hold down **NEXT PIECE** to show legal pieces quickly.
- ⑪ **NEXT MOVE:** Press repeatedly to show all possible legal moves for the currently selected piece.
- ⑫ **MAKE MOVE:** This key has several important functions, as described below:
 - a) Press when your desired move is showing in the LCD display, to enter that move into the computer.
 - b) Press when it is your turn to move, in order to change sides with the computer.
 - c) Press while the computer is thinking to interrupt its thought process and force it to make a move.
 - d) Press at the beginning of a new game if you want to switch sides with the computer and play the Black pieces from the bottom of the board.
- ⑬ **LAST MOVE:** Press repeatedly to show all possible legal moves for the currently selected piece (showing moves in the opposite board direction from when **NEXT MOVE** is pressed).
- ⑭ **LAST PIECE:** Press repeatedly to show all pieces which can make legal moves for the side to move (from the lower right to the upper left of the board). Hold down **LAST PIECE** to show legal pieces quickly.
- ⑮ **BATTERY COMPARTMENT:** On underside of unit; over 100 hours of play from a set of four alkaline AAA (Type AM4/RO3) batteries.
- ⑯ **ACL KEY:** On underside of unit; may be used to eliminate static discharge after inserting new batteries (see Section 1.1).

INTRODUCTION

Your Kasparov Chess Shadow chess computer is a highly unusual and unique machine — one you are going to enjoy immensely! Never before has a computer chess game been so portable, so much fun, and so easy to learn. Once you start carrying this game around with you, you and your Shadow will soon be inseparable!

The computer has a large, clear LCD display which shows the chessboard and move information, and Chess Shadow's distinctive keys make this "man versus machine" set-up absolutely foolproof! Upon request, the computer shows all pieces which can legally move in any position. Select your piece, and it shows all legal moves that piece can make!

Kasparov Chess Shadow is an ideal tutorial tool for players who are trying to learn about chess, since it shows every available move in any given position. You don't even need to know how to play chess to play against this computer — just press the buttons and you are automatically playing the game! Kasparov Chess Shadow is truly the first chess computer to be suitable for anyone, at any age!

Other features are also included for the more advanced player, such as a special Turbo Mode which allows fast scanning of all legal moves. Non-Auto Mode gives you the ability to either play against another person, or to enter a series of moves manually and then play against the computer (e.g., to study a particular opening of your choice). Your Kasparov Chess Shadow has 16 different levels, including regular playing levels (with varying degrees of difficulty), fun (handicap) levels designed especially for beginners, and problem and puzzle solving levels for more serious chess study.

You may take back moves, and even watch as the computer considers different move options during its turn. Plus, save your current game position simply by switching to **STOP**. When you are ready to pick up where you left off, switch to **GO** and continue with your game!

Kasparov Chess Shadow is the ideal chess opponent and partner — this computer will be your constant companion for years to come, both at home and on the road!

How to Use this Manual

Since you should learn the basic operation of the computer before going on to discover its other features, we recommend that you read Section 1 first. Afterwards, go ahead and explore the other game options and different playing levels Kasparov Chess Shadow has to offer.

1. GETTING STARTED

1.1 Battery Installation

Chess Shadow runs on four AAA (Type AM4/RO3) batteries. We strongly recommend that you use alkaline batteries for long battery life (over 100 operating hours). Push the **STOP-GO** switch to **STOP**. Open the battery compartment and insert the batteries as shown in the diagram at the front of the manual, making sure you observe the correct polarity. Push the **STOP-GO** switch to **GO**, and you will hear a double beep.

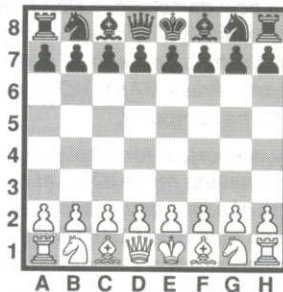
If the computer fails to respond — static discharge may sometimes cause it to lock up — use a paper clip or any other sharp object to press and hold in

the **ACL** key on the underside of the unit for one second. This resets and reinitializes the computer.

1.2 How to Make Your Moves

Once you have inserted the batteries, you are ready for your first game of chess against Shadow.

1. Push the **STOP-GO** switch to **GO** to turn the computer on.
2. Press **NEW GAME**, and all the pieces will automatically be in their starting positions on the LCD display. The LCD display also shows $\Sigma \Gamma \Delta \Gamma \Delta \Gamma \Delta \Gamma$ to indicate the beginning of the new game.



Initial board set up at the beginning of a game.

3. The normal sequence for selecting and making moves is very simple:

- Press **NEXT PIECE** or **LAST PIECE** to pick the piece you want to move.
- Press **NEXT MOVE** or **LAST MOVE** until the move you want to make shows on the LCD display.
- Press **MAKE MOVE** to enter your move into the computer.

Note: Since e2-e4 is such a common opening move, a handy shortcut has been built into Chess Shadow to display this opening with just one initial keypress. After starting a new game, press **NEXT MOVE**. This automatically displays ♖ E2E4, with the pawn flashing between e2 and e4 on the chessboard. Press **MAKE MOVE** to enter e2-e4 into the computer.

Similarly, a shortcut for displaying the common opening move d2-d4 at the beginning of a new game is to press **LAST PIECE**, and then press **LAST MOVE**. Note that the display shows ♙ d2d4. Now, simply press **MAKE MOVE** to enter d2-d4 into the computer.

If you start a game by pressing **NEXT PIECE**, the first piece to be displayed is the f2 pawn. If you want to see all possible moves the f2 pawn can legally make, press **NEXT MOVE**. Pressing **NEXT MOVE** repeatedly cycles through all legal moves (f2-f3 and f2-f4, in this example). To cycle through the legal moves more quickly, simply hold down **NEXT MOVE** and the computer automatically shows you all moves for that piece. If you do not wish to move the f2 pawn, press **NEXT PIECE**, and note that the display now flashes the g2 pawn. Again, you may use **NEXT MOVE** to cycle through all legal moves for the g2 pawn. Once you have the desired piece and move showing in the LCD display, press **MAKE MOVE** to enter your move into the computer.

The **LAST PIECE** and **LAST MOVE** keys work exactly like the **NEXT PIECE** and **NEXT MOVE** keys, but they cycle through the board in the opposite direction. If you press **LAST PIECE** when you first start a game, the display shows the pawn on d2. Pressing it again will show the pawn on c2, etc.

Once you practice a little to understand how these keys work and the direction in which they go around the board, you will quickly get a feel for finding the fastest way to reach your desired piece and move.

IMPORTANT: Note that Chess Shadow skips over all pieces which cannot make legal moves in any given position. In the initial starting position, for example, it only cycles through the pawns and the two Knights as possible pieces for you to move. Similarly, if you are in check and there happens to be only one legal move, that move will be the only one displayed. *The **NEXT PIECE** function can, therefore, be used as a wonderful tutorial tool for less experienced players.*

4. As soon as you enter your move into the computer, Chess Shadow will start thinking about its next move. Note that at the beginning of a game, the reply is usually instantaneous on Levels 1 through 6, because the computer is playing moves which are stored in its opening library (see Section 3.6). When the computer stops playing from its book opening

library and starts thinking on its own, the display shows $\text{E H I N K L R} _ _$ with the two upper dashes flashing to indicate that Chess Shadow is thinking for the side playing from the top of the board. Whenever the computer is playing from the bottom of the board, the display shows $\text{E H I N K L R} _ _$ with the bottom dashes flashing. *To watch the computer's thought process as it considers which move to make, use **INFO**, as described in Section 3.8.*

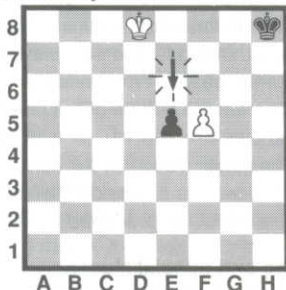
1.3 Capturing and Special Moves

Captures are made automatically on the LCD board. The display shows the capturing piece, with a colon between the *from* and *to* squares of the move (e.g., ♗ b4 : c3).

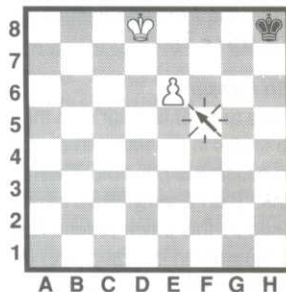
Capturing *En Passant*

Many beginners are not familiar with this rule, introduced to chess in the fifteenth century. Capturing *en passant* is possible when a pawn is on its fifth rank. If an enemy pawn crosses a square attacked by this pawn (because of its ability to move two squares on its first move) the pawn may act as if the enemy pawn had only moved one

square, and capture it *en passant*. This can only be done on the very next move.



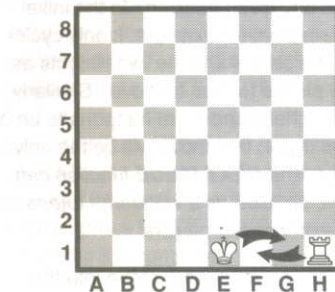
In the above position, Black tried to avoid the capture of his pawn by advancing it two squares from e7 to e5.



White can capture the pawn *en passant* by moving his pawn from f5 to e6. The computer automatically removes the captured pawn from the LCD chessboard.

Castling

The computer automatically recognizes castling maneuvers and moves the Rook after the King's move is chosen. King-side castling is displayed as ♔-♖ in the LCD information line, and Queen-side castling is displayed as ♚-♜.

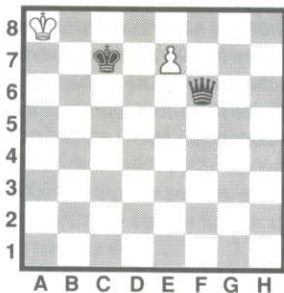


Castling King-Side: Press **NEXT PIECE** or **LAST PIECE** until the LCD information line shows ♔ E 1, with the King symbol (♔) flashing on the LCD chessboard. Now, press **NEXT MOVE**, and note that the information line shows ♔ ♖-♖ and the King and Rook are intermittently flashing on the board. Press **MAKE MOVE** to enter your castling move into the computer, with the King automatically moving from e1 to g1, and the Rook from h1 to f1.

Pawn Promotion

When the computer promotes a pawn by moving it to the 8th rank, it flashes the promoted piece in the display to indicate its choice.

When you move a pawn from the 7th to the 8th rank for a pawn promotion, pressing **NEXT MOVE** repeatedly cycles through the promotion choices (Queen, Rook, Bishop, and Knight). When the desired piece is displayed, press **MAKE MOVE** to select that piece and enter the move into the computer. For an idea of why an *underpromotion* might sometimes be warranted, consider the following position.



In the previous diagram, it would be fatal for White to promote his pawn to a Queen. If he did so, Black could immediately deliver mate by moving his Queen to a6. White must instead promote to a Knight, which attacks both the Black King and Queen at the same time (this is known as a "Knight fork"). To promote to a Knight, after selecting the 7th rank pawn with **NEXT PIECE** or **LAST PIECE**, press **NEXT MOVE** repeatedly until the promotion piece of your choice is displayed. Then press **MAKE MOVE** to select that piece for promotion.

1.4 How the Computer Moves

When the computer makes a move, it sounds a double beep and the display shows the piece it wants to move alternately in its current and new locations (the *from* and *to* squares), while at the same time the coordinates of the move are displayed on the LCD information line, along with the symbol for that piece (e.g., ♖ E7E5). In a check situation, the computer beeps once more after the move has been made, and the symbol for check is added to the display (e.g., ♖ E7E5+).

1.5 Illegal Moves

Since Kasparov Chess Shadow only presents move options for pieces which can move legally, an illegal move can never be made.

1.6 Taking Back Moves

Chess Shadow allows you to take back up to six ply in any position (a ply is a move for either side). You may, therefore, take back up to three moves for both sides.

When you press **TAKE BACK**, the display shows ♠♠, along with the affected piece and the move that has been taken back (e.g., ♠♠ ♖E2F3). If you reach the limit of six ply and continue to press **TAKE BACK**, the display shows ♠♠ ♠RkE to indicate that no more moves can be taken back.

1.7 Check, Mate and Draw

When a King is in check, you hear a beep and the check sign (+) appears in the display. If a game ends in checkmate, you hear an end-of-game signal, and the display shows the mating piece and

the mating move, followed by ♠, the symbol which indicates the end of the game (e.g., ♖E2G2 ♠).

Chess Shadow recognizes the following draw situations. In each case, the computer shows the specific draw symbol and the drawing move.

<u>DRAW</u>	<u>DISPLAY</u>
Draw by Stalemate	♠ ♠7F7
<i>Occurs when the side waiting to move is not in check, but has no legal moves.</i>	
Draw by Three-Fold Repetition (consecutive)	♠ ♠7F7
<i>Occurs when the same board position has occurred three times in the game, and the same side is on the move. Note: Chess Shadow will only recognize three-fold repetition if the moves are made consecutively.</i>	

1.8 Starting a New Game

To begin a new game at any time, press **NEW GAME**. You hear the new game beep, and the computer automatically sets the pieces up for a new game, using the currently set level.

IMPORTANT: Pressing **NEW GAME** clears the current game, so be very careful not to press this key by mistake.

1.9 Turning the Computer Off

To turn the computer off, push the **STOP-GO** switch to **STOP**.

Note: If you push the switch to **STOP** *while the computer is thinking*, when you switch to **GO** to continue the game, Chess Shadow will *restart* its search for that move. Therefore, when using a level where the computer may search for a long time (e.g., the Infinite Level, Problem Search Level, or Puzzle Level), it is inadvisable to push the switch to **STOP** during the search, since Chess Shadow will restart the search from scratch when you switch it back to **GO**.













In order to conserve battery power, we recommend that you switch to **STOP** whenever you interrupt your chess game for more than a few minutes. If you are using fresh alkaline batteries, the computer retains the current position (and game) for up to two years.


















1.10 LCD Contrast Switch

The LCD Contrast Switch is used to choose the amount of contrast desired in the LCD display, which often depends upon your viewing angle.

When the computer's batteries are low, the LCD display becomes difficult to read. When this occurs and the display cannot be adjusted with the LCD Contrast Switch, you will need to replace the computer's batteries. See Section 4.1 for a description of battery replacement.

1.11 SUMMARY OF THE LCD DISPLAYS

<i>LCD CHESSBOARD PIECE SYMBOLS</i>		
KING (White/Black)		
QUEEN (White/Black)		
ROOK (White/Black)		
BISHOP (White/Black)		
KNIGHT (White/Black)		
PAWN (White/Black)		

<i>LCD INFORMATION LINE SYMBOLS</i>		
KING (White/Black)		
QUEEN (White/Black)		
ROOK (White/Black)		
BISHOP (White/Black)		
KNIGHT (White/Black)		
PAWN (White/Black)		
Level Mode		
Draw by Stalemate		
Draw by 3-Fold Repetition		
Check		
Game Ended		

2. LEVELS OF SKILL

Kasparov Chess Shadow has a total of 16 different levels of skill. They include levels for casual play, game analysis, problem solving, fun (handicap) levels for beginners, and a special puzzle level. When you set your desired level, keep in mind that when the computer has more time to think about its moves, it becomes stronger and plays better—just like a human chess player!







2.1 Setting a Playing Level

Press **LEVEL** to select your desired playing level. The computer beeps when **LEVEL** is pressed, and also shows the current level on the LCD display. Press **LEVEL** repeatedly to go through all 16 of Chess Shadow's levels. To cycle through the levels quickly, simply press and hold **LEVEL**. Your playing level is automatically set to the last level shown in the display.

If you turn the computer on and then press **NEW GAME** and **LEVEL**, Chess Shadow automatically defaults to Level 3. However, if you turn the


computer off in the middle of a game, or if you set another level and then press **NEW GAME**, Chess Shadow keeps your currently selected level in effect. You may change the playing level at the beginning or any time during a game.

2.2 Levels for Casual Play

<u>LEVEL</u>	<u>AVERAGE TIME</u>	<u>DISPLAY</u>
Level 1	1 second per move	 1
Level 2	3 seconds per move	 2
Level 3	5 seconds per move	 3
Level 4	10 seconds per move <i>(Medium)</i>	 4
Level 5	1 minute per move <i>(Smart)</i>	 5
Level 6	2 minutes per move <i>(Difficult)</i>	 6

These times are averaged over a large number of moves. In the opening and the endgame, the computer tends to play faster, but in tactically complicated middlegame positions, Chess Shadow may take considerably longer on individual moves.

2.3 Infinite Level


To choose the Infinite Level, press **LEVEL** until the display shows **Inf n** . Press **MAKE MOVE**, and the computer starts thinking. Chess Shadow continues thinking indefinitely, until you interrupt it by pressing **MAKE MOVE**. It then makes the move it currently considers best.

You may use this level to have the computer analyze complicated positions for many hours or even days. Use **INFO** to watch the LCD display as Kasparov Chess Shadow considers different moves in the position (see Section 3.8).

Note: On the Infinite Level, the computer may come back with a move if it runs out of memory. This will typically be after hours or days, but may occur faster in very simple positions.

2.4 Problem Search Level

If you are playing a game and you come upon a position where you think there might be a mate and you would like to have Chess Shadow help you find it, set the computer on the Problem Search

Level by pressing **LEVEL** until the display shows **Pr ob t** . On this level, the computer searches for a forced mate and only plays a move if it actually sees a mate. If it cannot find a mate after it has reached its search depth level, the computer beeps to indicate this and the information line display goes blank. You may continue with your game as usual, after switching to another level.

Note: If you would like to interrupt the computer's thought process on this level, press **MAKE MOVE**. The computer sounds an error beep to inform you that its search was interrupted and it had not found a mate up to that point. The information line display goes blank, and you can now simply make your next move after switching to another level.

2.5 Fun Levels

Seven unique and special "Fun Levels" have been included in this chess computer, especially for beginning and/or very young players. These levels allow those who might otherwise never win a game of chess to actually come up on the winning side for a change! They have been provided for both

entertainment and relaxation, as well as for their tutorial value. On the Fun Levels, Kasparov Chess Shadow is much more "human" than most other chess computers — it actually gives everyone a chance to win, in a world where chess machines are typically relentless, unforgiving, and often very difficult to beat. Even though the general consensus seems to be that "computers never make mistakes", on the Fun Levels (and for your benefit), this computer actually does!

For these reasons, even a beginner should soon be able to consistently win games against this computer on its Fun Levels. This should serve to spark more interest in the game of chess in youngsters, and will also make chess computers seem less intimidating to those players.

Various handicaps are built into the different levels, with each level demonstrating different and quite specific types of common mistakes that beginning chess players often make. Chess books often advise beginners of certain rules which should be followed — warning not to give away material, not

to bring the Queen out too early, and advising development of pieces before starting an attack. Yet players see their opponents breaking these very rules, and often getting away with it! The Fun Levels provide a way of practicing punishment of these typical mistakes (which the computer willingly makes on some of these levels) — thereby enabling the beginner to strengthen his game against the human opponents he is likely to face.

A big problem for many beginners is that they try to immediately press for a win, without realizing that they must first gain the advantage before they can force a win of the game. Playing against the Fun Levels teaches beginners to make straightforward developing moves in the early part of the game, to gain the advantage when the opponent makes a mistake, and then finally go for the win. With the lower Fun Levels, especially, the computer will start making mistakes very early in the game!

Even after a player has mastered all of the Fun Levels, these levels can still be used as a valuable chess training tool. As an example, a game can be

started on a Fun Level, and, as soon as the computer makes an obviously undesirable move, the player can switch to a normal game level and try to convert this advantage to a win, now playing against the stiffer opposition of a higher level.

Fun Level 1 is the weakest level, and from there on they get progressively stronger. On Fun Levels 1 through 5, the computer does not even use an opening library. All of the Fun Levels play at 2 seconds a move except Levels 6 and 7, which may move immediately if they see a check or a mate.

The following sections describe a little more about each of the Fun Levels. We hope that you find them all to be both entertaining and educational!

Fun Level 1 (Display: Händi ♚ 1)

On Fun Level 1, the value of material is set such that the computer will not only “hang” pieces (leave pieces unguarded), but it will also often devise plans to actually **try** to lose material. Watching the computer throw away its Queen would not even be uncommon on this level! *This is the easiest of all the Fun Levels.*

Fun Level 2 (Display: Händi ♚ 2)

On Fun Level 2, the computer plays “pure” positional chess — so much so, that it does not even take the material value of pieces into consideration at all! As on Fun Level 1, here the computer may also give away a Queen quite willingly! This level can be very instructive and educational for the beginner who wants to train himself to relentlessly take advantage of another beginner’s tendency to hang material.

Fun Level 3 (Display: Händi ♚ 3)

This level is very similar to Fun Level 2, but it will not *consistently* give away material. It randomly considers the material worth of the pieces part of the time, and therefore it acts much more like a beginning human opponent who may have frequent lapses, whereby he hangs pieces. On this level, the computer may still, however, give away as much as a Queen on one move.

Fun Level 4 (Display: Händi ♚ 4)

On Fun Level 4, the computer may occasionally give away material, but only as much as a Rook on one move. This level is excellent for continuing to

teach the beginner to recognize when his opponent hangs a piece — and to take full advantage by taking that piece! On both this level and Fun Level 3, it pays to stay alert!

Fun Level 5 (Display: H3nd, ♞ 5)

Fun Level 5 is the first of the handicap levels which does not actually give away material. It plays like a beginner who has won some games and has just discovered the power of the Queen. As such, on this level, the computer likes to make the typical beginner's mistake of playing its Queen out very early in the opening in order to get her into the action as quickly as possible. This situation lets the player recognize such mistakes, and allows him the opportunity to take full advantage of the situation in order to gain the upper hand and eventually beat his opponent.

Fun Level 6 (Display: H3nd, ♞ 6)

This is the first of these levels to use a prepared opening book. On Fun Level 6, the computer will secure a fairly even position in the opening, even against experienced players. Then, however, it will occasionally hang pieces. One might say that Fun

Level 6 simulates the beginner who has learned some openings, knows how to develop his position before charging out with his Queen, but who still occasionally has lapses where he leaves pieces unguarded. On this level, check threats are ignored, and the computer is also vulnerable to one-move mating threats.

Fun Level 7 (Display: H3nd, ♞ 7)

Fun Level 7, which also uses a prepared opening book, is the *strongest of the Fun Levels*. It will never hang a piece, but it is still very vulnerable to check and checkmate threats. This level is similar to the beginner who has learned that the game of chess is usually won or lost over material — and who concentrates so much on this that he can have a lapse where he will occasionally forget to defend his King!

2.6 Puzzle Level

The Puzzle Level (displayed as PZZL ♞) is for solving the "mate or a large win of material" types of problems found in newspaper columns and beginning chess books and other books which test your tactical abilities. On this level, the computer

looks for the shortest forced win of two pawns or more, and displays the solution if it finds one. If it reaches its search depth limit *without* finding a solution, it beeps and the information line display goes blank. You may then continue with your game as usual, after selecting another level.

3. ADDITIONAL FEATURES

All the features we have explained so far are enough to provide you hours of pleasure and entertainment with your Kasparov Chess Shadow. You have learned how to play games against the computer, how to correct your mistakes, and how to adjust the level of playing skill to match your own individual needs. There are, however, other things your chess computer can do which make it even more fun to use. Some of those features are dealt with in this section.

3.1 Changing Sides with the Computer

You may, at any time, change sides with the

computer simply by pressing **MAKE MOVE** when it is your turn (instead of making your own move). This forces the computer to make the next move for your side. You may change sides as often as you wish during a game.

Note: As described in Section 3.3, pressing **MAKE MOVE** at the very beginning of a new game causes the computer to change sides with you and make the first move for White, playing from the top of the board.

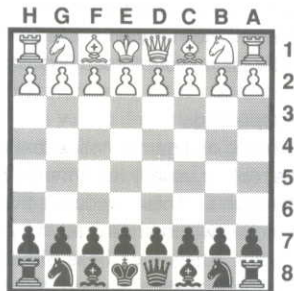
3.2 Computer Plays Against Itself

If you would like to see the computer play a game of chess against itself, simply press **MAKE MOVE** repeatedly. Watch as Kasparov Chess Shadow plays moves for both sides of the board, one after the other.

3.3 Playing Black from the Bottom of the Board

You might also want to try playing with the Black pieces and letting Chess Shadow play White. To accomplish this, press **NEW GAME**, and then press **MAKE MOVE**. The LCD chessboard will

reverse sides, and the pieces are now set up as shown below. The computer automatically makes the first move for White from the top of the board.



Board set-up with Black playing from the bottom of the board.

Note: When you are playing Black from the bottom of the board, the board coordinates are, of course, also reversed.

3.4 Interrupting the Computer's Thought Process

If you feel that the computer is taking too long to make a move, press **MAKE MOVE** to interrupt its

thought process and force it to play the best move it has found so far. This can be extremely useful on the higher and more advanced levels, especially on the Infinite Level, where Chess Shadow thinks indefinitely unless you stop it.

Note: On the Problem Search and Puzzle Levels, pressing **MAKE MOVE** does not cause Chess Shadow to make a move. Instead, the computer sounds an error beep and blanks the display to inform you that it was interrupted before it had found a solution or a mate. At this point, you may continue the game as usual, after switching to another level.

3.5 Non-Auto Mode (Playing Against Another Person)

Non-Auto Mode allows you to use the computer as a referee for a game between two people. Press **NON-AUTO**, and the display shows $\square \square \square \square$. Now, simply choose the piece you want to move with **NEXT PIECE** or **LAST PIECE**, display the move you want to make with **NEXT MOVE** or **LAST MOVE**, and then press **MAKE MOVE**.

Instead of starting to think, Kasparov Chess Shadow simply waits for another move to be entered for the other side in exactly the same manner. As in a normal game of chess against the computer, Chess Shadow displays and allows only legal moves.

If either side needs help, you may press **MAKE MOVE** and allow the computer to suggest the next move. If you don't like the computer's move, you can always take it back. After you take the move back, you will still be in **NON-AUTO** mode.

Note: Pressing **NON-AUTO** once more returns you to normal game mode, with you playing against the computer (the display shows **RULE** to confirm this). At this point, either select and make a move of your choice, or press **MAKE MOVE** to have the computer make the next move.

Non-Auto Mode can also be a valuable study aid, in that you can use this mode to practice different openings. To accomplish this, press **NON-AUTO**, and then simply enter an opening of your choice by

making the moves for both sides. After you have played through the first few moves in this mode and reached the desired opening position, press **NON-AUTO** once more to return to normal game play. Then, you may continue your game against the computer, using your forced opening!

3.6 Book Openings

At the beginning of a game, notice that the computer's reply is usually instantaneous on Levels 1 through 6. This is because the computer is playing moves which are stored in its *book opening library*. Kasparov Chess Shadow's book opening library consists of around 200 opening moves from grandmaster play. If the current board position is in the computer's book, Chess Shadow plays one of the normal responses to that position from its collection of moves. It does not, therefore, have to think about that particular move.

3.7 Sound

If the computer's beeps are distracting you or others during a game, you may turn off the sound by pressing **SOUND**. The LCD display shows

SOUND OFF. Pressing **SOUND** again turns it back on (the display reads **SOUND ON**).

3.8 Info Mode: Watching the Computer Think

In a normal chess game, you would never ask your opponent what move he was thinking about. Playing against Kasparov Chess Shadow, however, allows you to do just that! In fact, you can actually watch as this chess computer considers different moves in any given position. The Info display changes as Chess Shadow decides which is the best move to make.

When you are playing a game against the computer, the display normally shows the word **THINK** just to let you know at a glance that the computer is playing from the top of the board and is currently thinking of a move. If you want to watch Chess Shadow's thought process, press **INFO**. The display shows **INFO ON**. Now, simply make your move as usual, but note that while the computer is thinking, it displays the move it currently considers best. As an example, it may show **INFO ♖d5d5**, with the "-" flashing if it

is playing from the top of the board, or a "-" flashing if it is playing from the bottom of the board (e.g., **INFO ♗E7G5**). If Chess Shadow changes its mind about the move it wants to make, the display changes appropriately, until it finally beeps and makes the move it has decided upon.

Once you have turned Info Mode on, it remains on automatically every time the computer makes a move. To turn it off, simply press **INFO** again at any time, and the display shows **INFO OFF**. Make your next move, and note that the display has returned to showing **THINK** or **THINK** while the computer thinks.

Note: **INFO** can be toggled on or off at any time, even while the computer is thinking.

3.9 Turbo Mode: Faster Play for More Advanced Users

For the player who has become very familiar with the unit and wants to spare himself from having to push so many buttons to make moves, a special Turbo Mode has been included, which allows you

to very quickly scan all legal moves (in either a clockwise or counter-clockwise direction).

- Press and hold **NEXT MOVE** first and then simultaneously press and hold **LAST MOVE**, and Chess Shadow will quickly cycle through all the legal moves of each piece in a clockwise direction, from the upper left of the board to the lower right.
- Press and hold **LAST MOVE** first and then simultaneously press and hold **NEXT MOVE**, and Chess Shadow will quickly cycle through all the legal moves of each piece in a counter-clockwise direction, from the lower right of the board to the upper left.

In both cases, the display quickly shows you the squares to which all pieces can move. It skips over those pieces which cannot make legal moves in that particular position. When the move you want to make is displayed, simply release the keys and that move remains in the display. Then press **MAKE MOVE** to enter that move into the computer. If you skip over the move you want to

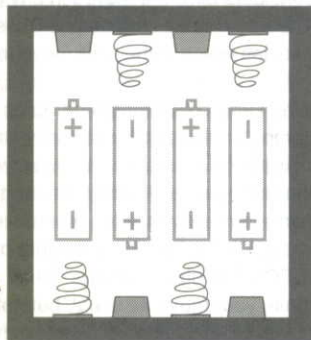
make, use **NEXT PIECE** or **LAST PIECE** and **NEXT MOVE** or **LAST MOVE** to get back to the desired move, and then press **MAKE MOVE**.

4. TECHNICAL DETAILS

4.1 Batteries

To install the batteries:

1. Push the **STOP-GO** switch to **STOP**. Locate the battery compartment on the bottom of the unit, and take off the cover.
2. Insert four AAA size batteries, observing the polarity (+ and -) marked on the inside of the battery compartment.



3. Replace the battery compartment cover.
4. Turn the unit over, and push the **STOP-GO** switch to **GO** to turn the computer on. You hear a double beep, and the LCD chessboard appears. The computer is now ready for a game of chess.

When the batteries are low, the LCD display becomes difficult to read. When this occurs and the display cannot be adjusted by the LCD Contrast Switch, you need to replace the batteries.

To replace low batteries:

1. Be sure to have a new set of batteries on hand before removing the old ones.
2. Turn the computer off by switching to **STOP**.
3. Take off the battery compartment cover, and replace the batteries.

4.2 The ACL Key

If the computer fails to respond after you have inserted a new set of batteries, your unit may have locked up due to static discharge. In this event, simply locate the **ACL** key on the bottom of the set. Use a paper clip or any other sharp object to press and hold in the **ACL** key for several seconds. This resets and reinitializes the computer.

Note: Pressing the **ACL** key resets the computer back to all its initial default settings (normal game mode with pieces in their initial starting positions, Playing Level 3 set, sound on, etc.).

4.3 Care and Maintenance

Your Kasparov Chess Shadow is a precision electronic device, and should not be subjected to rough handling or exposed to extreme temperatures or moisture.

Do not use chemical agents to clean the set, as these may damage the plastic.

4.4 Technical Specifications

Processor Speed:	2 MHz
Program Memory:	7740 bytes ROM (internal)
RAM Memory:	176 bytes (internal)
Keys:	11
Slider Switches:	2
LCD Display:	50mm chessboard, Info line
Current Requirements:	18mA
Battery Requirements:	4 AAA cells (AM4/RO3) for over 100 hours of operation
Dimensions:	205 x 100 x 32mm
Weight:	275g
Playing Strength:	For beginners and casual players.

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

RECOMMENDED READING

Playing against a Kasparov chess computer is an ideal way to learn the skills of chess and improve your game. There are many good books written on chess, and the following are some we recommend:

CHESS OPENINGS (BCO)

by Garry Kasparov & Raymond D. Keene
Batsford Books

LEARN FROM THE GRAND MASTERS

by Raymond D. Keene
Batsford Books

OPENING REPERTOIRE FOR WHITE

by Raymond D. Keene
Batsford Books

PUBLISHER:

*B. T. Batsford Ltd.
4 Fitzhardinge Street
London W1H 0AH
United Kingdom*

TROUBLESHOOTING GUIDE

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
1. The computer does not work with batteries.	<i>Batteries not inserted properly.</i>	See instructions for battery installation in Section 4.1.
	<i>Power reset problem.</i>	Press ACL key (see details in Section 4.2).
2. The computer keeps beeping, does not play moves.	<i>Batteries weak or bad.</i>	Replace batteries (see details in Section 4.1). If computer still continues to beep, it should be returned to a Service Center.
3. The computer behaves erratically or freezes in the middle of a game.	<i>Power or reset problem, static discharge or power disturbance.</i>	Take out batteries, press ACL key (see Section 4.2). Reinstall batteries, and switch on again.

(Continued...)

TROUBLESHOOTING GUIDE (continued)

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
4. The computer seems to be cheating or making illegal moves.	<p><i>The computer has made a special move, such as:</i></p> <ul style="list-style-type: none">• <i>En Passant</i>• <i>King- or Queen-side Castling</i>• <i>Pawn promotion or underpromotion</i>	Make sure you are familiar with chess rules. Check the current board position in the LCD display; then take back a move and check the previous board position. This shows you exactly what the computer has done.
5. The computer will not play a move.	<p><i>Non-Auto Mode is on.</i></p>	Press NON-AUTO to get back to normal game mode to play a game against the computer.
	<p><i>You may be on a level which causes the computer to think for a long time (Infinite Level, Problem Search Level, or Puzzle Level).</i></p>	To interrupt the computer's thought process on any of these levels, press MAKE MOVE .

TROUBLESHOOTING GUIDE (continued)

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
6. The computer is silent.	<i>The sound is off (see details in Section 3.7).</i>	Press SOUND to turn the sound back on again.
7. The computer makes instant or irrational moves.	<i>The computer may be set on one of the Fun Levels, where it deliberately makes common chess mistakes so that the beginner may study them and learn from them.</i>	Press LEVEL to check which level is currently selected. If the display shows HAND , with a number after it, you are on one of the Fun (Handicap) Levels. Press LEVEL to change to a different playing level.
8. The LCD display is difficult to read.	<i>LCD contrast not adjusted correctly, or batteries are too weak and need to be replaced.</i>	Adjust the LCD Contrast Switch to suit your viewing angle. Replace batteries with fresh ones if the display is still hard to read.

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