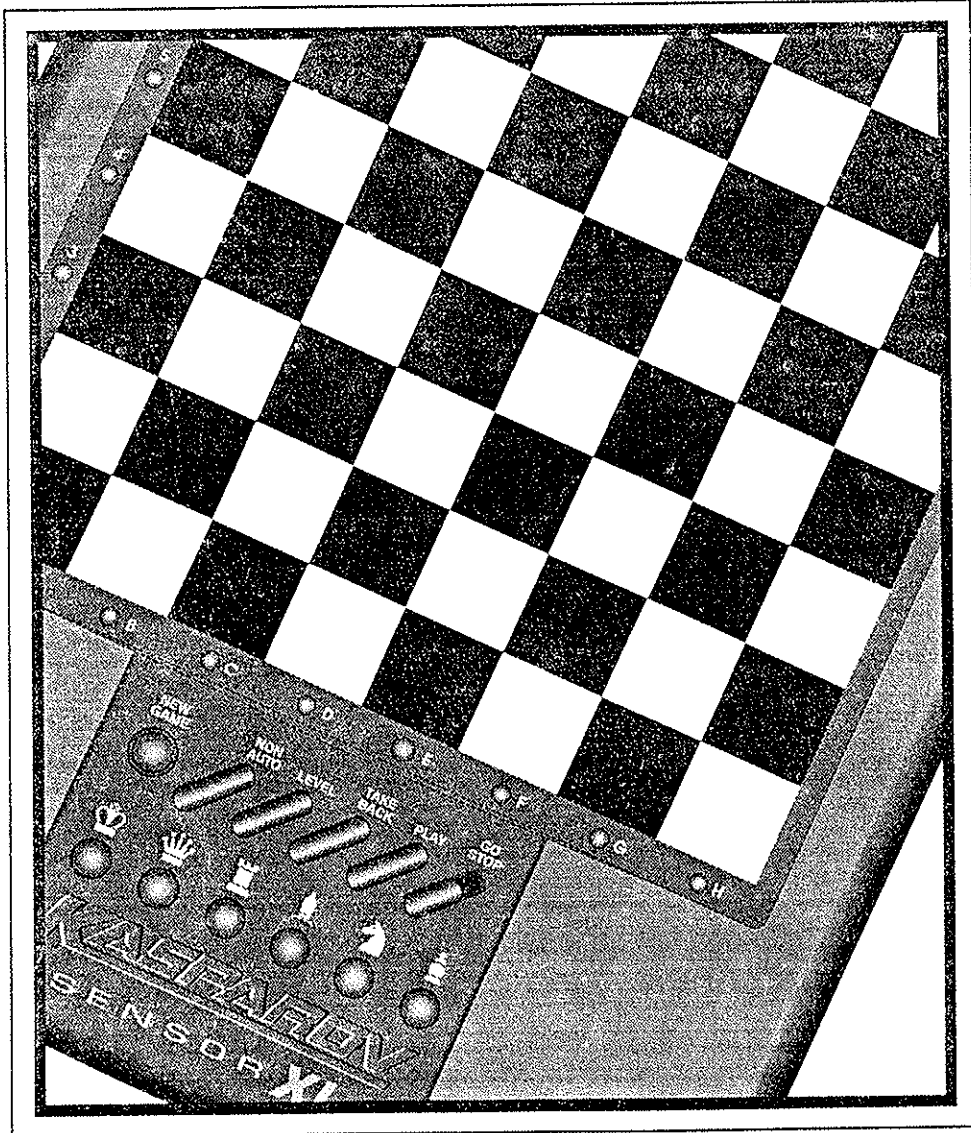


Saitek™



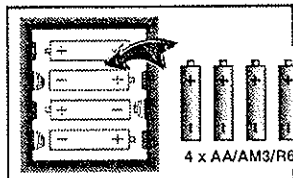
KASPAROV **SENSOR XL**

THIS MANUAL IS ENCLOSED WITH THE SAMPLE CHESS GAME ONLY
AND MAY CONTAIN ERRORS WHICH WILL BE RECTIFIED AT A LATER STAGE

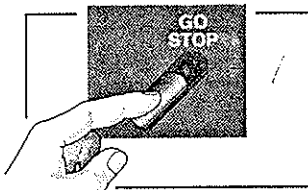
QUICK START

To play a game right away, without reading the entire manual first, simply follow these Quick Start steps!

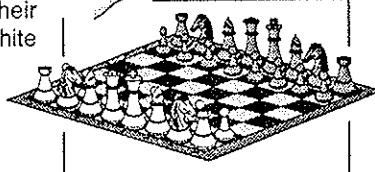
- 1 Insert 4 "AA" (Type AM3/R6) batteries into the computer, making sure to observe the correct polarity.



- 2 Switch to GO to turn the computer on. If the computer does not respond, press into the hole marked ACL in the base of the unit, as described in Section 1.1.



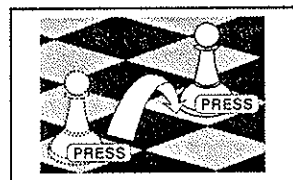
- 3 Set up the pieces in their initial position, with the White pieces closest to you.



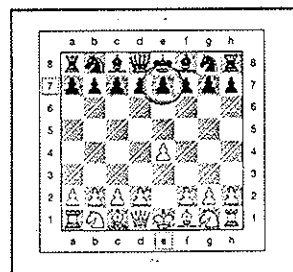
- 4 Press NEW GAME to reset the computer.



- 5 Enter moves by executing them on the board, pressing the pieces down gently on the from and to squares for each move.



- 6 When the computer makes its move, two board lights come on, pointing to the row and column of the piece to be moved. Lightly press the computer's piece down onto the indicated from and to squares to complete the computer's move.



Make your next move as described above. Switch to STOP when you want to turn the computer off. Enjoy your game!

A message from...
GARRY KASPAROV
WORLD CHAMPION

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 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!

Garry Kasparov

***KASPAROV* SENSOR XL**

INSTRUCTION MANUAL

ENGLISH

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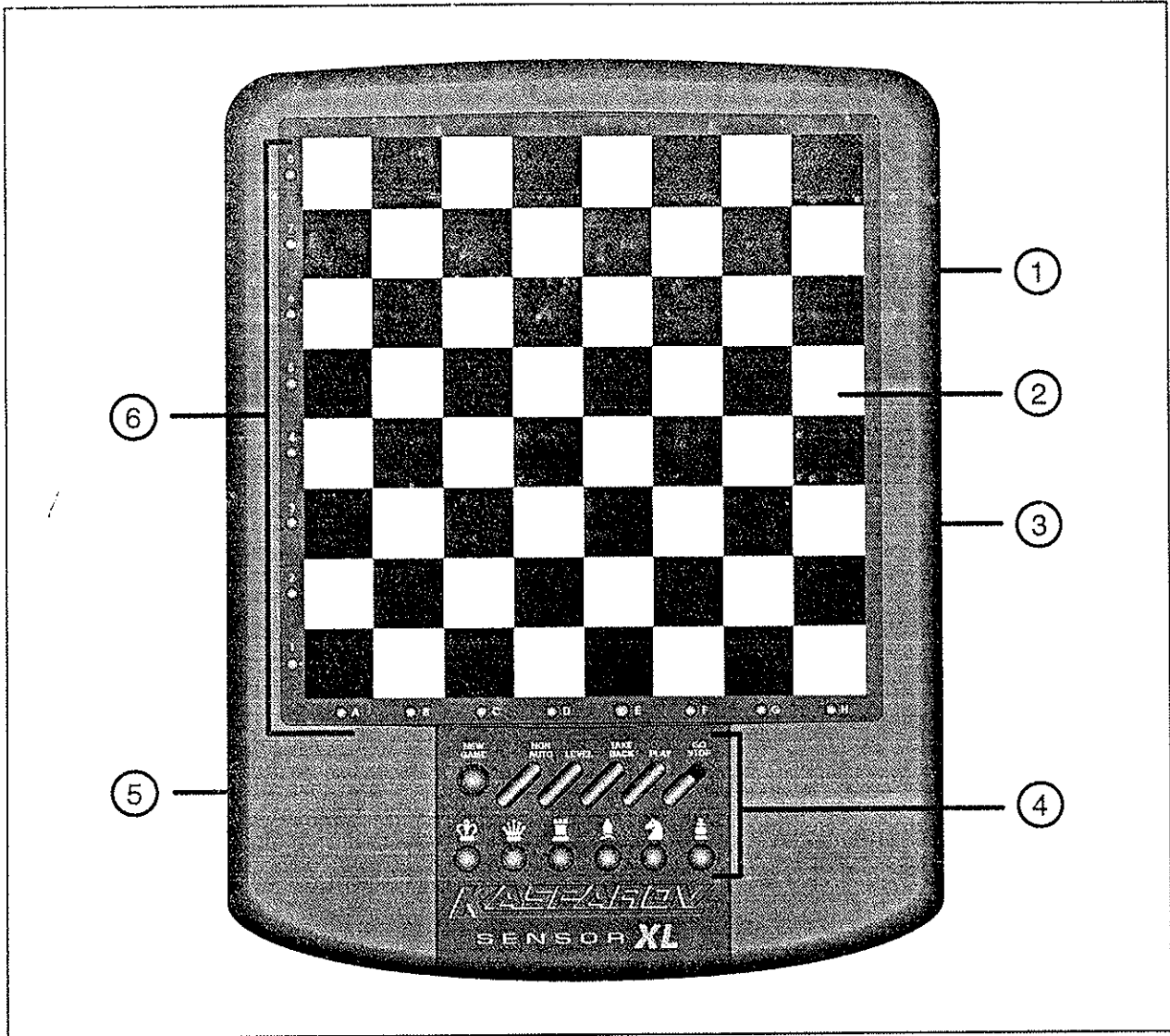
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TROUBLESHOOTING GUIDE

CHESS RULES



KEYS AND FEATURES

1. **PIECE STORAGE AREA:** Handy piece storage compartment is located in base of unit.
2. **SENSORY CHESSBOARD:** Each square contains a sensor that registers piece movement.
3. **BATTERY COMPARTMENT:** In base of unit. Uses four "AA" (Type AM3/R6) batteries.
4. **GAME KEYS**
 - a. **NEW GAME KEY:** Press to reset the computer for a new game.
 - b. **NON AUTO KEY:** Press to enter Non Auto Mode, which allows moves to be entered manually.
 - c. **LEVEL KEY:** Press to enter Level Mode.
 - d. **TAKE BACK KEY:** Press to take back one half-move (a move for either side). You may take back up to six half-moves (three moves per side).
 - e. **PLAY KEY:** Press to change sides with the computer; press while the computer is thinking to force it to move.
 - f. **GO/STOP SWITCH:** Switches the computer on and off. The computer retains the current position

- in memory when turned off.
- g. **PIECE SYMBOL KEYS:** Used to verify piece positions. Also used to promote pawns.
5. **ACL (Reset):** In base of unit. Used to eliminate static discharge after inserting new batteries.
6. **BOARD LIGHTS:** Used to show game moves, select playing levels, and verify piece positions.

TECHNICAL SPECIFICATIONS:

ROM Memory:	7740x8 (internal)
RAM Memory:	176x8 (internal)
System Clock Frequency:	1.7 MHz \pm 15%
Game Keys:	11
Power Control:	Slide switch
LED Lamps:	16
Sound:	Piezo-electric buzzer
Batteries:	4 AA cells (AM3/R6)
Battery Life (alkaline):	>600 hours in operation >18 months in stop mode

INTRODUCTION

Congratulations on your purchase of this unique Kasparov Chess Computer! You will soon find out that your new chess partner offers an exciting variety of features and a powerful chess program. The Extended Playing Range of 64 different playing levels will allow you to experiment and learn more about chess and how computers play chess! And the sensory board makes play so easy, natural, and so much fun!

Just Look At These Special Features!

- Sensory board for automatic piece recognition—simply press your piece to make your move!
- Extended Playing Range includes 64 levels of play for learning, variety and experimentation—including Beginner, Practice, and Fun Levels; Quiet and Aggressive Game Levels; Tactical, Fixed Depth, and Normal Play Levels; Mate and Combination Finder Levels; and an Infinite Level!
- 152-move library includes all major openings.
- Play Black from the bottom for a change of pace!
- Unsure of the position? Verify pieces at any time.
- Change your mind about a move? Take back up to six half-moves (three moves per side)!
- Play against another person with the computer acting as referee and keeping track of the time!
- Solves mate problems (up to mate in 4 moves).
- Current game is retained in memory when off!

The Chess Rules

Your new Kasparov Chess Computer knows the rules of chess, including castling, pawn promotions, and en passant. It also recognizes draws (with the exception of extended three-fold repetition, 50-move rule, and insufficient material). If you are not familiar with the game, turn to the back of this manual for an overview of the rules. Additional information may be found in your local library, which is sure to have books on the subject.

1. GETTING STARTED: THE BASICS

1 First, Install the Batteries

Consult the Quick Start section at the front of this manual for the correct type and number of batteries required to operate your computer. Use fresh alkaline batteries for longer battery life (over 600 hours!).

Make sure that the computer is off, then insert the batteries as shown in the Quick Start. Switch to **GO** to turn the computer on, and a beep should signal that the game is ready to play. If the computer fails to respond (static discharge may cause it to lock up), use a paper clip or other sharp object to press into the hole marked **ACL** in the base of the unit for at least one second. This effectively resets the computer.

To conserve battery power, switch off when you interrupt your game for more than a few minutes!

2 Ready to Play? Here's How to Move

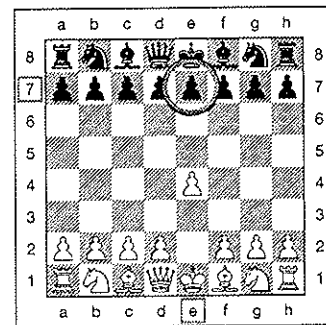
- Follow these steps to start a game:
- Switch to **GO** to turn the computer on.
 - Press **NEW GAME**, and set up the chess pieces in their starting positions, with the White pieces nearest to you (refer to the Chess Rules at the back of this

- manual if you are unsure of the piece positions).
- To make a move, lightly press down on the piece you want to move until you hear a beep. The sensory board recognizes the piece automatically, and the coordinate lights for that piece light up.
- Take the piece and lightly press it down on the desired destination square. A second beep sounds, and the computer then starts thinking.

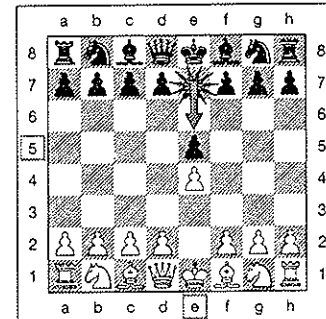
At the beginning of a game, the computer's reply is usually instantaneous on many of the levels, because it is playing moves which are stored in its opening book library (for details, see Section 2.12).

3 The Computer Makes its Move

When the computer moves, it beeps and turns on two board lights indicating the horizontal row and vertical column of the piece it wants to move. Press this piece down gently until you hear a beep. The computer then uses board lights to show you where the piece should go. Move the piece to the indicated square and press the piece down to complete the computer's move.



Here, the computer wants to move its pawn from e7. First, press down on the e7 pawn.



The lights indicate the pawn should move to e5. Press the pawn down on e5 to complete the computer's move.

4 Change Your Mind? Use Take Back!

Whenever it is your turn to move, you may press **TAKE BACK** to take back a move. The board lights indicate the **to** square of the move to be taken back. Press the piece down on the square, and the computer shows you where that piece came **from**. Press the piece down on the **from** square to complete the move take-back. To retract more moves, simply repeat this same procedure.

You may take back up to six half-moves (or three moves for each side) in any position.

5 Game Over? Start A New Game Anytime
Whenever you finish a game (or if you decide to abort your current game) you may reset the computer to start another game simply by pressing **NEW GAME**. The new game sound signifies that the computer is ready for another game, using the currently set level.

IMPORTANT: Pressing **NEW GAME** clears the current game from the computer's memory—be very careful not to press this key by mistake!

6 Too Easy or Too Hard? Change Levels!
When the computer is first turned on, it is set to Level H3 (five seconds a move). However, you may choose any of the 64 levels described in Section 3!

Press **LEVEL**, and the board lights indicate the currently set level. To change the playing level, press a board square to activate your desired level, using the chart in Section 3 as a guide. Press **LEVEL** again to enter your level selection into the computer.

2. ADDITIONAL FEATURES

2.1 Indication of the Side to Move

When the computer plays Black, it flashes the **8** light while it is thinking. After it has moved, the **1** light comes on steadily to show that it is now White's turn to move. Similarly, if the computer plays White, the **1** light flashes during its turn, and the **8** light comes on steadily after it has moved to show that Black is to move next. You can, therefore, always tell at a glance whether the computer is thinking, and which side is to move!

2.2 Capturing and Special Moves

To capture, press down on the piece you want to move, take the captured piece off the board, and press your piece down on the square of the captured piece.

En Passant

In an en passant capture, the computer uses two board lights to remind you to remove the captured pawn. You must press down on the captured pawn before removing it from the board.

Castling

Your chess computer automatically recognizes castling maneuvers after the King is moved. After you have pressed the King down on its **from** and **to** squares, the computer uses the board lights to remind you to move the Rook. Press down on the Rook's **from** and **to** squares to finish the move.

When taking back a castling maneuver, the computer only indicates the take-back of the King's move, and leaves it up to you to put the Rook back on its original square.

Pawn Promotion

When you promote a pawn, first press your pawn down on its **from** square, as usual. To promote to a Queen, simply press down on the **to** square, and the computer will automatically change your pawn to a Queen.

To *underpromote* (to a Rook, Bishop, or Knight), first press your pawn down on its **from** square. Next, before pressing down on the **to** square, press the

corresponding Piece Symbol key for your desired promotion piece to enter that choice into the computer. Finally, press down on the **to** square on the eighth rank. The computer recognizes your new piece immediately, and begins thinking about its next move.

The computer can also promote and underpromote. If it promotes to a Queen, it makes its move as usual. When it underpromotes, it flashes the lights for its **to** square after you have moved its piece to that square. Use the Piece Symbol keys to find out which piece it has chosen for underpromotion. Remember to change the piece on the board!

2.3 Illegal Moves/Wrong Moves

Your chess computer will never accept an illegal move. If you attempt such a move, the computer sounds a low double beep, and the board lights indicate the square the piece came **from**. Since the computer will not allow you to move to an illegal square, it will completely disregard that square and wait for a legal entry. Either move that same piece to another square, or press the piece back down on its **from** square and move a different piece.

If you do not move the computer's piece correctly, you will also hear an error beep. This indicates that you are trying to move the wrong piece, or you are moving the computer's piece to the wrong square.

If you press down on a piece, but you decide not to make that move, simply press the piece down on that same square again to cancel the input. Now make another move of your choice. If you change your mind after entering your whole move, you must take the move back as described in Section 1.4.

2.4 Check, Mate and Draw

When a King is in check, the computer sounds a double beep and turns on the **A** and **B** board lights, highlighting **CHECK**. If a game ends in checkmate, the computer beeps and lights **A** and **B** for **CHECK**, along with **G** and **H** for **MATE**.

In the case of a draw, the computer will light the **D** and **E** board lights to highlight **DRAW** when the drawing move is made. The computer recognizes the following draw situations:

- *Draw by Stalemate: Occurs when the side to move is not in check, but has no legal moves.*
- *Draw by Three-Fold Repetition (consecutive only): Occurs when the same board position has occurred three times in the game, and the same side is on the move.*

2.5 Interrupting the Computer's Search

To interrupt the computer while it is thinking, press **PLAY**. This forces the computer to play the best move it has found so far. This feature can be very useful on the higher levels, especially on the Infinite Level, where the computer thinks indefinitely unless you stop it.

*On the Mate Finder Level, pressing **PLAY** does not cause the computer to make a move. Instead, after a short time the computer sounds an error beep to indicate that it was interrupted before it found a mate. To continue your game, switch to another playing level.*

2.6 Changing Sides with the Computer

You may change sides with the computer at any time by pressing **PLAY** when it is your turn to move.

This causes the computer to make the next move for your side. You may change sides as often as you wish!

2.7 The Computer Plays Against Itself

To watch the computer play a game against itself, press **PLAY** for every move. Study its playing strategies to learn more about chess!

2.8 Get Hints from the Computer!

If you need help with a move, you can have the computer show you what it would do in your position! Press **PLAY** when it is your turn, and the computer will make the next move for you. To keep this move as your own, press **PLAY** again to have the computer make its own move; then make your next move to continue the game. If you do not want to use its move as your own, simply take it back and make another move.

2.9 Verify Mode

If you should knock over the chess pieces or if you think the board position is incorrect, you can have the computer verify all of the piece locations for you!

On your turn, press one of the Piece Symbol keys. The computer uses the board lights to show you where the first piece of that type is located on the board. Steadily lit board lights indicate a White piece, and flashing board light indicate a Black piece. Press the same Piece Symbol key again to see the location of the next piece of that same type. All the White pieces are shown first, then Black pieces. When there are no more pieces of that type, you will hear a distinctive double beep and only the 1 light will remain on.

Repeat the above procedure using the other Piece Symbol keys, verifying the entire board if desired. To return to normal play, simply make your next move.

TRY OUT VERIFY MODE FOR YOURSELF!

PRESS	BOARD LIGHTS ON
NEW GAME	1 (new game, White to move)
♙ key	B,1 (1st square occupied by White Knight)
♘ key	G,1 (2nd square occupied by White Knight)
♞ key	B,8 flashing (1st square occupied by Black Knight)
♟ key	G,8 flashing (2nd square occupied by Black Knight)
♚ key	1 (no more Knights on the board)

To continue verifying, press another Piece Key; otherwise, make a move to continue your game.

2.10 Non Auto Mode

Normally, the computer automatically answers with a countermove whenever you enter a move. When you press **NON AUTO**, however, you can enter any number of moves one by one, without allowing the computer to answer. This feature can be used to enter a series of moves for both sides or to replay a game to a certain position. Turning Non Auto on also allows you to play against another person, with the computer acting as referee and checking the legality of all moves!

To exit Non Auto Mode, press **NON AUTO** again.

When playing against another person, if either side needs help from the computer, press **PLAY** and the computer will make the next move. If you don't like the move the computer makes, take it back. Whether you take the move back or accept it as your own, you will remain in Non Auto Mode, and can continue your game.

SPECIAL USES FOR NON AUTO MODE!

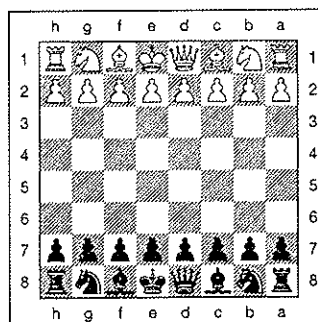
- Play through games you find in chess books. Press **PLAY** to see what the computer would do in any particular position!
- Study opening book lines by entering them manually. Then exit Non Auto Mode and play against the computer, using your forced opening.
- Keep records of your own chess games. When a game is over, replay to certain positions to see how other moves or different strategies might have affected the outcome—watch and learn!
- Play chess against a friend, with the computer checking all moves for legality.

2.11 Playing Black From the Bottom

You may want to depart from the usual standard and play with the Black pieces from the bottom of the board. To do this, first set up the board with the Black pieces closest to you, as shown in the following diagram. Notice, in particular, that the Kings and Queens are positioned differently in this set-up.

Press **NEW GAME** and then **PLAY**, and the computer will automatically reverse sides, playing the first move for White from the top of the board.

When you play Black from the bottom, the color indicator lights are also switched (i.e., the 1 light now indicates Black, and the 8 light now indicates White).



Board set-up with Black at the bottom

2.12 Openings Library

At the beginning of a game, the computer's reply is often instantaneous on many levels, because your chess computer is playing moves which are stored in its *openings library* (or *opening book library*). This library consists of 152 opening moves, and includes all major openings and many positions from grandmaster play. If the current board position is in its openings library, the computer plays a response to that position from its collection of moves, instead of thinking about the move.

Note that the computer uses its openings library on all levels except A1-A8 and B1-B8 (the Beginner/Fun Levels and the special problem solving levels).

2.13 Game Memory

You may interrupt a game at any time by switching to **STOP**. Play is then suspended, and the computer "remembers" the current position for up to 18 months (with fresh alkaline batteries). When you switch back on again, the computer is ready to resume your game!

HAVING PROBLEMS? SOME HINTS & TIPS:

- **Is it really your turn to move?** Check the color indicator, as described in Section 2.1. If the B board light is flashing, the computer is currently thinking about its move for Black.
- **Did you execute the computer's last move incorrectly?** If you hear an error beep when entering the computer's move, check the board to make sure you are pressing on the correct square. Pressing down on the indicated square will complete the computer's move.
- **Does the computer merely beep and keep indicating your "from" square when you try to move?** You are attempting to enter an illegal move. Either move the piece to another square, or press the indicated from square again to erase the move, and make a different move. Trust the computer—it knows the rules of chess and will not allow an illegal move!
- **Are you unsure of the board position? Have some pieces been moved inadvertently?** Use Verify Mode to check the piece positions. For details, see Section 2.9.
- **Is your King in check?** If your King is in check, you must move it out of check before you can make any other move (see the Rules).
- **Computer won't make a move?** The Non Auto option may be turned on—this option must be turned off for the computer to respond with its moves automatically (see Section 2.10).

3. LEVELS OF SKILL

Your Kasparov Chess Computer has a unique Extended Playing Range of 64 different playing levels, including levels for casual play, mate finder and problem solving levels, aggressive and passive levels, and several different types of levels especially for beginners. When you set the level, keep in mind that when the computer has more time to think about its moves, it gets stronger and plays better—just like a human chess player!

Setting a Playing Level

Press **LEVEL**, and the computer lights the board square corresponding to the currently set level. When the computer is first turned on, it is set on Level H3 (5 seconds per move). As indicated in the chart, each of the 64 board squares corresponds to one playing level. Press **LEVEL**, then press a square to activate a level, using the chart as a guide. When you press down on the desired square, the computer beeps and the board lights turn on to indicate that square. Press **LEVEL** to enter your selection into the computer.

For those levels which have Average Response Times listed, note that the times are averaged over a large number of moves. In the opening and endgame, the computer tends to play faster, but in complicated middlegame positions, it may take longer to move.

3.1 Beginner Levels (A1-A8)

BEGINNER LEVELS	AVERAGE TIME PER MOVE
Square A1	1 second
Square A2	2 seconds
Square A3	3 seconds

Square A4	4 seconds
Square A5	5 seconds
Square A6	6 seconds
Square A7	7 seconds
Square A8	8 seconds

The Beginner Levels are meant specifically for novice players. On these levels, the computer restricts its search so that it deliberately plays weaker and gives the beginning player a chance to beat the computer!

3.2 Fun Levels (B1-B5)

FUN LEVELS	AVERAGE TIME PER MOVE
Square B1	1 second
Square B2	2 seconds
Square B3	3 seconds
Square B4	4 seconds
Square B5	5 seconds

These unique "Fun Levels" are meant especially for beginners and young players—these levels allow those who might otherwise never win a game of chess to come up on the winning side for a change! On the Fun Levels, your Kasparov Chess Computer is much more "human" than most chess computers—it gives everyone a chance to win, in a world where chess machines are typically relentless and often quite difficult to beat. Although the general consensus seems to be that computers never make mistakes, on the Fun Levels, this computer actually does!

Various handicaps are built into the Fun Levels, demonstrating common mistakes made by beginners. Chess books often advise of basic rules—warning not to give away material, not to bring the Queen out too early, and advising the development of pieces before starting an attack. Yet players see their opponents breaking these rules and getting away with it! The Fun Levels provide a way of practicing the punishment of these typical mistakes, thus enabling the beginner to strengthen his game against the human opponents he is likely to face.

Even after a player has mastered the Fun Levels, they can still be a valuable training tool. A game can be started on a Fun Level, for example, and, when the computer makes a bad move, the player can switch to a normal level and try to convert his advantage to a win, playing against the stiffer opposition of a higher level.

Level B1 is the weakest level. On this level, the value of material is set so that the computer will not only "hang" pieces (leave pieces unguarded), but will also actually try to lose material. Watching the computer throw away its Queen would not even be uncommon on this level! Levels B2, B3, and B4 are similar to B1, in that they also give away material, but they do not do it as consistently. They progressively start to consider the material worth of pieces more and more, and Level B4 only occasionally gives pieces away. On Fun Level B5, the computer does not actually give away material—here, it plays more like a beginner who has learned the basics of the game. On this level, the computer makes mistakes such as bringing out its Queen too early, leaving its pieces unguarded, and opening itself up to threats of check and/or checkmate. Try all the Fun Levels, and try to learn from the computer's mistakes!

3.3 Infinite Level (B6)

INFINITE LEVEL	TIME PER MOVE
Square B6	No time limit

On the Infinite Level, the computer searches indefinitely, until it finds a forced mate or until you stop the search by pressing **PLAY**. If the search is halted, the computer makes the move it currently thinks is best. Try experimenting with the Infinite Level—have your computer analyze complicated board positions for hours or even days!

3.4 Combination Finder Level (B7)

COMBINATION FINDER LEVEL **PURPOSE**

Square B7 Solves chess puzzles

The Combination Finder Level is used for solving "mate or a large win of material" problems. Here, the computer looks for the shortest forced win of two pawns or more. In order to come up with a solution, the computer must see a win of enough material to be two pawns better than even, in addition to two pawns better than the current position. If it finds such a solution, it will

beep and indicate its move.

If the computer reaches its search depth limit without finding a solution, it beeps and its previously flashing color indicator turns on steadily. To continue play, change levels—then either press **PLAY** to have the computer move or make a move of your own.

3.5 Mate Finder Level (B8)

MATE FINDER LEVEL **PURPOSE**

Square B8 Solves mate problems

Selecting this level activates a special mate finder program. If you have a position where there may be a mate and you want the computer to find it, set the computer on this level. The computer will then search for a forced mate, and will only play a move if it finds a mate. It can solve mates in up to four moves.

If there is no mate present or if the computer cannot find a mate, it sounds a beep and the previously

SELECT YOUR PLAYING LEVELS FROM THE 64 BOARD SQUARES!

	A	B	C	D	E	F	G	H	
8	Beginner Level 8 8 sec/move	Mate Finder Level	Practice Level 8 3 min/move	Tactical Level 8 3 min/move	Fixed Depth Level 8 Search depth 8 ply	Quiet, Closed Game Level 8 3 min/move	Aggressive Game Level 8 3 min/move	Normal Play Level 8 3 min/move	8
7	Beginner Level 7 7 sec/move	Combination Finder Level	Practice Level 7 2 min/move	Tactical Level 7 2 min/move	Fixed Depth Level 7 Search depth 7 ply	Quiet, Closed Game Level 7 2 min/move	Aggressive Game Level 7 2 min/move	Normal Play Level 7 2 min/move	7
6	Beginner Level 6 6 sec/move	Infinite Level No time limit	Practice Level 6 1 min/move	Tactical Level 6 1 min/move	Fixed Depth Level 6 Search depth 6 ply	Quiet, Closed Game Level 6 1 min/move	Aggressive Game Level 6 1 min/move	Normal Play Level 6 1 min/move	6
5	Beginner Level 5 5 sec/move	Fun Level 5 5 sec/move	Practice Level 5 30 sec/move	Tactical Level 5 30 sec/move	Fixed Depth Level 5 Search depth 5 ply	Quiet, Closed Game Level 5 30 sec/move	Aggressive Game Level 5 30 sec/move	Normal Play Level 5 30 sec/move	5
4	Beginner Level 4 4 sec/move	Fun Level 4 4 sec/move	Practice Level 4 10 sec/move	Tactical Level 4 10 sec/move	Fixed Depth Level 4 Search depth 4 ply	Quiet, Closed Game Level 4 10 sec/move	Aggressive Game Level 4 10 sec/move	Normal Play Level 4 10 sec/move	4
3	Beginner Level 3 3 sec/move	Fun Level 3 3 sec/move	Practice Level 3 5 sec/move	Tactical Level 3 5 sec/move	Fixed Depth Level 3 Search depth 3 ply	Quiet, Closed Game Level 3 5 sec/move	Aggressive Game Level 3 5 sec/move	Normal Play Level 3 5 sec/move	3
2	Beginner Level 2 2 sec/move	Fun Level 2 2 sec/move	Practice Level 2 2 sec/move	Tactical Level 2 2 sec/move	Fixed Depth Level 2 Search depth 2 ply	Quiet, Closed Game Level 2 2 sec/move	Aggressive Game Level 2 2 sec/move	Normal Play Level 2 2 sec/move	2
1	Beginner Level 1 1 sec/move	Fun Level 1 1 sec/move	Practice Level 1 1 sec/move	Tactical Level 1 1 sec/move	Fixed Depth Level 1 Search depth 1 ply	Quiet, Closed Game Level 1 1 sec/move	Aggressive Game Level 1 1 sec/move	Normal Play Level 1 1 sec/move	1
	A	B	C	D	E	F	G	H	
	BEGINNER LEVELS	FUN/ PROBLEM SOLVING	PRACTICE LEVELS	TACTICAL LEVELS	FIXED DEPTH SEARCH LEVELS	QUIET, CLOSED GAME LEVELS	AGGRESSIVE GAME LEVELS	NORMAL PLAYING LEVELS	

flashing color indicator turns on steadily. You may continue play, if desired, by simply changing levels.

3.6 Practice Levels (C1-C8)

PRACTICE LEVELS	AVERAGE TIME PER MOVE
Square C1	1 second
Square C2	2 seconds
Square C3	5 seconds
Square C4	10 seconds
Square C5	30 seconds
Square C6	1 minute
Square C7	2 minutes
Square C8	3 minutes

The Practice Levels offer you a great chance to sharpen your chessplaying skills! On these levels, the computer will play for captures and checks as much as possible. The program may intentionally overlook traps in order to encourage you to play for traps and threats. You will also notice the computer positioning its pieces so that they may easily be attacked.

3.7 Tactical Levels (D1-D8)

TACTICAL LEVELS	AVERAGE TIME PER MOVE
Square D1	1 second
Square D2	2 seconds
Square D3	5 seconds
Square D4	10 seconds
Square D5	30 seconds
Square D6	1 minute
Square D7	2 minutes
Square D8	3 minutes

Although the Tactical Levels have the same search times as the Normal Playing Levels, the computer plays differently here because it employs a different search method. On the Normal Playing Levels, the computer uses a Selective Search algorithm. This method allows the computer to see combinations that would otherwise take much longer to compute. On the Tactical Levels, however, the computer switches to a powerful Brute Force Search algorithm. This helps to minimize the risk of an occasional oversight.

3.8 Fixed Depth Levels (E1-E8)

FIXED DEPTH LEVELS	SEARCH DEPTH
Square E1	1 ply
Square E2	2 ply
Square E3	3 ply
Square E4	4 ply
Square E5	5 ply
Square E6	6 ply
Square E7	7 ply
Square E8	8 ply

On the Fixed Depth Levels, the computer's search depth is limited to certain number of *ply*. A ply is a half-move, or a move for either side. As an example, on Level E1, the computer only searches to a depth of one ply, and thus only looks ahead one move. Therefore, on this level, it will often overlook a mate. This results in much weaker play, giving beginners and average players a better chance of beating the computer. These levels start out easy and get progressively more difficult—as you conquer each level, go on to the next!

3.9 Quiet, Closed Game Levels (F1-F8)

QUIET, CLOSED GAME LEVELS	AVERAGE TIME PER MOVE
Square F1	1 second

Square F2	2 seconds
Square F3	5 seconds
Square F4	10 seconds
Square F5	30 seconds
Square F6	1 minute
Square F7	2 minutes
Square F8	3 minutes

On these eight playing levels, the computer gives preference to a quiet, passive style of play. Here, you will see the computer exchanging pieces as much as possible, in an effort to avoid complications and simplify the board position. With this type of play, the program also avoids attacks and keeps positions closed whenever possible.

3.10 Aggressive Game Levels (G1-G8)

AGGRESSIVE GAME LEVELS	AVERAGE TIME PER MOVE
Square G1	1 second
Square G2	2 seconds
Square G3	5 seconds
Square G4	10 seconds
Square G5	30 seconds
Square G6	1 minute
Square G7	2 minutes
Square G8	3 minutes

In direct contrast to the levels described previously in Section 3.9, on Levels G1-G8, the computer is much more active and plays more aggressively. It will try to open up positions by exchanging or sacrificing pawns, and it will actively avoid piece exchanges to keep board positions as complicated as possible! On these playing levels, the computer also likes checks and direct attacks on your pieces. Be prepared for anything!

3.11 Normal Playing Levels (H1-H8)

NORMAL PLAYING LEVELS	AVERAGE TIME PER MOVE
Square H1	1 second
Square H2	2 seconds
Square H3	5 seconds
Square H4	10 seconds
Square H5	30 seconds
Square H6	1 minute
Square H7	2 minutes
Square H8	3 minutes

The Normal Playing Levels are also this computer's strongest and most challenging levels! Whenever you choose one of these levels, you are basically selecting an average response time for the computer. On these levels, the computer uses a Selective Search algorithm, allowing it to quickly come up with move combinations which would otherwise take much longer to find.

When you are playing on any of these levels, remember that the longer the computer has to think about its moves, the better it will play!

TIPS ON CHOOSING A PLAYING LEVEL:

• **Are you a beginning player?** Start out with the Fun Levels, the Beginner Levels, or the lower Fixed Depth Levels. These levels all restrict the computer's search depth, resulting in weaker play, and giving you the chance to learn about the game and perhaps even win!

• **Are you an intermediate or more advanced chess player?** Try the Normal Levels or the

higher Fixed Depth Levels. The Normal Levels range from easy all the way up to a more difficult three-minute response time on Level H8. The Fixed Depth Levels allow you to set your desired search depth—after you beat the computer on one level, go on to the next!

- **Learn by watching the computer!** Study the different styles of play based on the **type of search** (Tactical vs. Normal Levels), and the **type of play** (Quiet vs. Aggressive Levels)!
- **Want to practice your offense?** Try out the Practice Levels, where the computer will very conveniently and obligingly position its pieces so that they may be easily attacked!
- **Want to experiment?** Use the Combination Finder Level or the Mate Finder Level to solve problems up to mate in four—try searching from a position in one of your own games!

4. TECHNICAL DETAILS

4.1 The ACL Function

Computers sometimes “lock up” due to static discharge or other electrical disturbances. If this occurs, take out the batteries and use a pin or another sharp object to press into the hole marked **ACL** in the base of the unit for at least one second. This will reset the computer and clear its memory.

4.2 Care and Maintenance

Your Kasparov Chess Computer 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. Weak batteries should be replaced promptly, since they can leak and damage the computer.

Use alkaline or zinc batteries only.



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

TROUBLESHOOTING GUIDE

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
1. The computer does not react correctly, behaves erratically, or “freezes” during a game.	<i>Batteries not inserted properly.</i>	See the Quick Start section for battery information.
	<i>Batteries weak or bad.</i>	Replace the batteries (see Quick Start).
	<i>Static discharge or an electrical disturbance has caused the computer to lock up.</i>	Press into the hole marked ACL , as described in Section 4.1.
2. The computer will not play a move.	<i>Non Auto Mode is in effect.</i>	The computer only plays automatic responses to moves if Non Auto Mode is off (see Section 2.10).
	<i>You may be on a level which causes the computer to think for a long time (e.g., Infinite, Mate Finder, or Combination Finder Levels).</i>	You may interrupt the computer’s thought process and force it to make a move, if desired, by pressing PLAY .
3. The computer will not accept moves or keypresses, and sounds an error beep.	<i>Is it your turn? (Check the color indicator in the display) Is your King in check? Will your move put your King into check? Are you trying to castle incorrectly? Did you move the Rook first when castling?</i>	Make sure you are familiar with the chess rules. Use the piece keys to verify the board position (see Section 2.9), use TAKE BACK to reconstruct the last move.
	<i>The computer is still thinking (8 or 1 light flashing).</i>	To interrupt the computer’s thinking, press PLAY .
	<i>You have not entered the computer’s last move correctly.</i>	Check the board lights, and press the indicated square to complete the computer’s move.
4. The computer seems to be making illegal moves.	<i>The computer has made a special move, such as an en passant capture, a castling maneuver, or a pawn promotion or underpromotion.</i>	Review the chess rules. Verify the board position as described in Section 2.9; use TAKE BACK to reconstruct the last move.
	<i>Your board position is not correct.</i>	Verify the board position (see Section 2.9).
	<i>Batteries are running out.</i>	Replace the batteries.
5. The computer makes instant or irrational moves.	<i>The computer may be set on one of the lowest Beginner, Fixed Depth, or Fun Levels, where it moves very quickly and plays weaker than normal because its search depth is limited.</i>	Press LEVEL to check which level is currently selected (see Section 3).
6. Board light is out.	<i>Defective component or contact.</i>	Consult your Kasparov Distribution Center.

