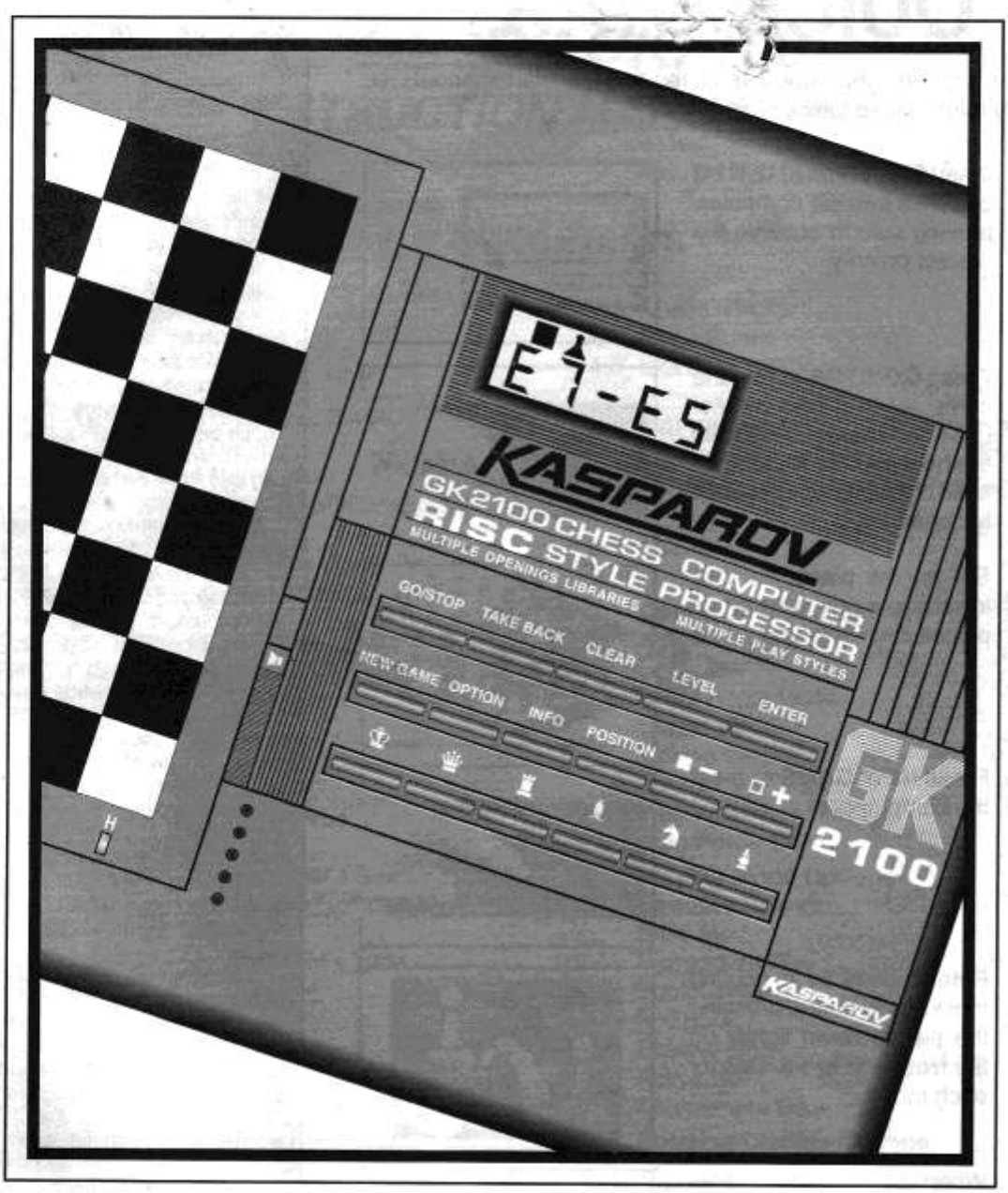
Saitek

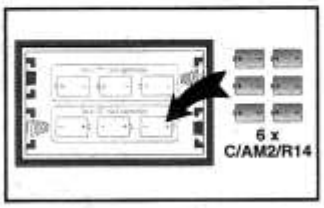



# KASPAROV
# GK 2100

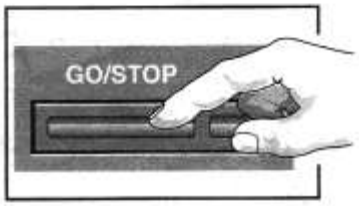
# QUICK START

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

**1** Insert 6 "C" (Type AM2/R14) batteries into the computer, making sure to observe the correct polarity.

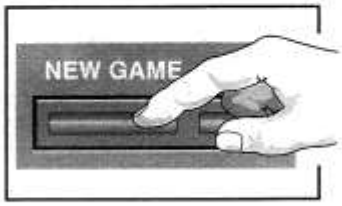



**2** Press **GO/STOP** to turn the computer on. If the computer does not respond, press into the hole marked **ACL** in the base of the unit, as described in Section 1.1.

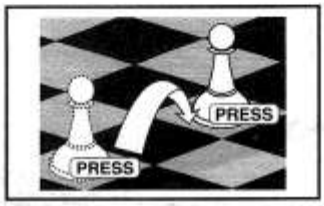



**3** Set up the pieces in their initial position, with the White pieces closest to you.

**4** Press **NEW GAME** to reset the computer.




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




**6** When the computer makes its move, it shows the move in the display, and two board lights come on to point to the row and column of the piece to be moved. Lightly press the computer's piece down on the indicated **from** and **to** squares to complete the computer's move.

Make your next move as described above. Press **GO/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!*

Kasparov

*Garry Kasparov*

# KASPAROV GK2100
# INSTRUCTION MANUAL

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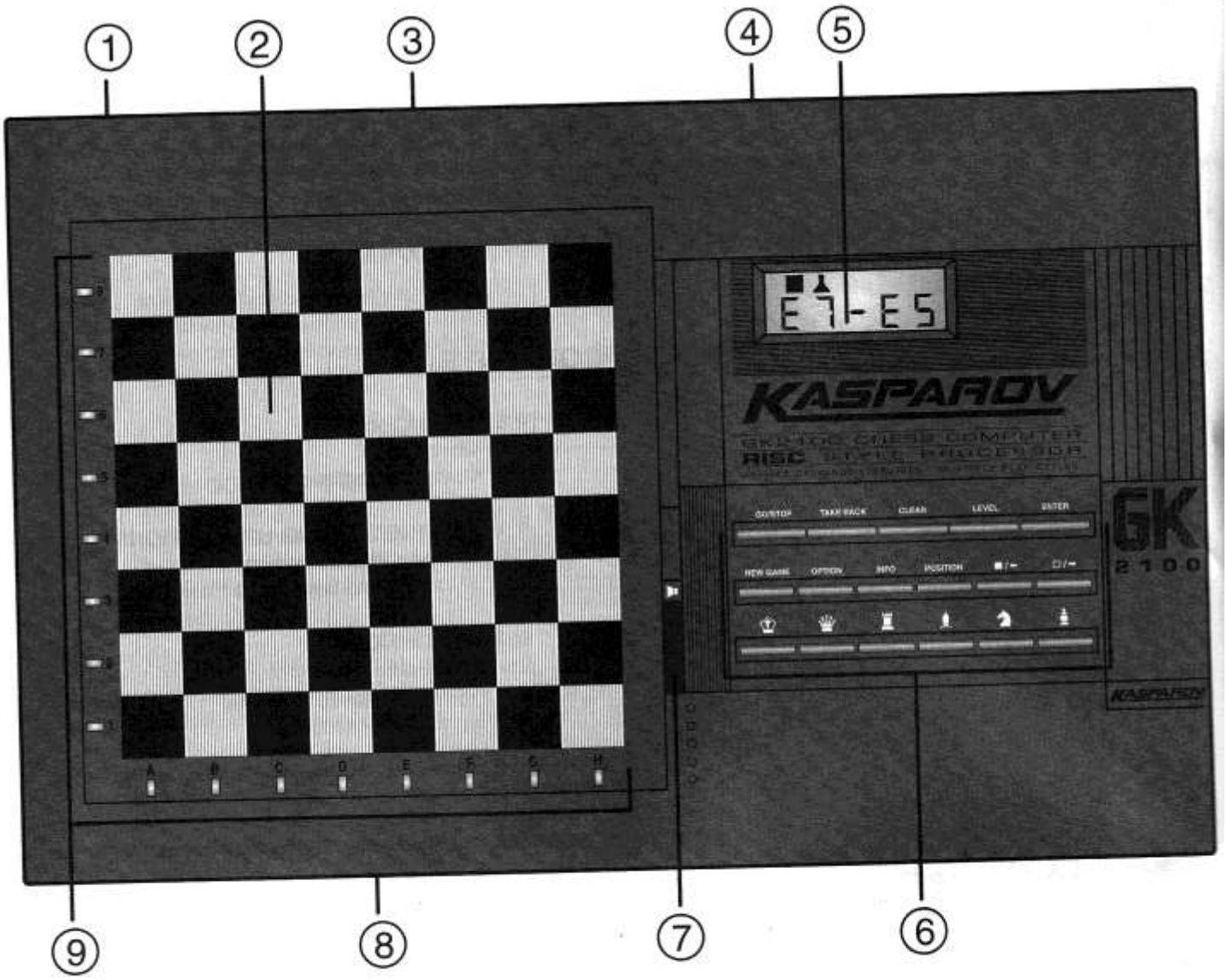


## KEYS AND FEATURES

(1) **BATTERY COMPARTMENT:** In base of unit. Uses six "C" (Type AM2/R14) batteries. Always keep fresh batteries in the unit, even when using a mains adapter, so that game memory will be preserved.

(2) **SENSOR CHESSBOARD:** Each square contains a sensor that registers piece movement.

(3) **PIECE STORAGE COMPARTMENT:** Handy piece storage compartment is located in base of unit.

(4) **MAINS ADAPTER SOCKET:** Socket for the optional Saitek mains adapter.

(5) **LCD DISPLAY WINDOW:** Used to show moves and move information during a game. Also used for level selection, piece verification, position set-up, option selection, rotating display, and other game information.

(6) **GAME KEYS**

a. **GO/STOP KEY:** Press to turn the computer on/off. When off, computer retains position in memory.

b. **TAKE BACK KEY:** Press to take back one half-move (a move for either side). You may take back up to 50 half-moves (i.e., 25 moves for each side).

c. **CLEAR KEY:** Press to exit Option Mode, Verify Mode, and Position Mode. Press to exit Level Mode without changing the level (unless you have used the board squares to change the level, in which case **CLEAR** acts like **ENTER** and enters the new level).

d. **LEVEL KEY:** Press to enter Level Mode.

e. **ENTER KEY:** Press to change sides with the computer; press while the computer is thinking to force it to move. Also used to clear board in Position Mode, to enable/disable options in Option and Info Modes, and to exit Level Mode after changing levels.

f. **NEW GAME KEY:** Press to reset for a new game. Pressing **ENTER** and **CLEAR** simultaneously also starts a new game.

g. **OPTION KEY:** Press to enter Option Mode.

h. **INFO KEY:** Used to enter Info Mode (to display game information and watch the computer think).

i. **POSITION KEY:** Press to enter Position Mode.

j. **WHITE & BLACK/SETTING KEYS (□− and ■+):** Used to change levels in Level Mode, and to cycle through options in Option Mode and Info Mode. Also used to select the color in Position Mode.

k. **PIECE SYMBOL KEYS (♔, ♕, ♖, ♗, ♘, ♙):** Used to verify/set up positions. Also used to promote pawns.

(7) **VOLUME CONTROL SWITCH:** When switch is in the lower position (as shown here), the volume is set to low. Slide switch up to set volume to high.

(8) **ACL (Reset):** In base of unit. Used to eliminate static discharge after inserting new batteries.

(9) **BOARD LIGHTS:** Used to show game moves, take back moves, and verify/set up board positions.

# INTRODUCTION

Congratulations on your purchase of the Kasparov GK2100, a computer which offers an exciting variety of unique features and a very powerful chess program. GK2100 is also extremely easy to operate, registering all moves automatically on its built-in sensor board!

***Just Look At All these Special Features!***

- *64 different levels of playing skill, including Training, Tournament, Speed Chess, Problem Solving, and even Fun Levels for beginners!*
- *Sensor board for easy move input.*
- *Large, clear display and 16 bright board lights.*
- *Chess Clocks with count down feature and unique "ticking-clock" sound option!*
- *Computer thinks on your time for stronger play!*
- *Advanced, high-speed selective search!*
- *User-programmable rotating display option.*
- *Watch the computer's thought process in great detail—see position evaluation, search depth, principal variation, current move, number of nodes being searched per second, and more!*
- *Move suggestions are offered on request.*
- *Large opening book library, with user-selectable opening book options!*
- *Built-in Automatic Transposition Manager handles opening book transpositions with ease.*
- *Plays White from the top of the board.*
- *Verify and set up chess positions and problems!*
- *Take back 50 half-moves (25 moves per side).*
- *Play against another person with the computer acting as referee and keeping track of the time.*
- *User-selectable playing modes!*
- *Knows all chess rules, including castling, pawn promotion, en passant, and draws (stalemate, three-fold repetition, and the 50-move rule).*
- *Great problem-solver—up to mate in 8 moves!*
- *Automatic power down with memory retention.*

### The Chess Rules

Kasparov GK2100 knows all the rules of chess, including castling, pawn promotions, en passant, and various draws. If you are not familiar with the game, turn to the back of the 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

Your computer runs on six "C" (Type AM2/R14) batteries. Use alkaline batteries for longer battery life (up to 120 hours). Make sure the computer is off, then insert the batteries as shown at the front of the manual. Press **GO/STOP** to turn the computer on. A beep signals that the game is ready to play. If the computer should fail to respond (static discharge may cause it to lock up), use a paper clip or another sharp object to press into the hole marked **ACL** in the base of the unit for at least one second. This resets the computer.

To conserve battery power, switch off when you interrupt your game for more than a few minutes. You may also set the Auto Power Down option (see Section 6.1), and the computer will turn itself off automatically if there are no keypresses or moves made for 15 minutes.

If you would rather not power your unit with batteries, you may purchase an optional Saitek mains adapter. Please use only the adapter specified for use with this computer. The use of any other adapter will invalidate the unit's warranty.

***IMPORTANT:*** *To ensure that the computer's memory contents are not lost, keep good batteries in your GK2100 even when you are using an adapter. If batteries are not installed, memory data is lost when the adapter is unplugged.*

## 2 Ready to Play? Here's How to Move

Follow these steps to start a game:

a. Press **GO/STOP** to turn the computer on.
b. Press **NEW GAME**, and set up the chess pieces in their starting positions, with the White pieces nearest to you (see the Chess Rules at the back of this manual if you are unsure of the piece positions).
c. To make a move, lightly press down on the piece you want to move until you hear a beep. The sensor board registers your move, and the coordinate lights for that piece light up. The display also indicates the color, the piece, and the square that was pressed.
d. Take the piece and lightly press it down on the square to which you are moving. A second beep sounds and the computer immediately 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 2.7).*

## 3 The Computer Makes its Move

When the computer moves, it beeps and shows its move in the display. It also turns on two board lights indicating the horizontal row and vertical column of the piece it wants to move. Press this piece down gently on the square until you hear a beep. The computer then uses the 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.

*The display shows the color, the piece, and the move.*

*Here, the computer wants to move its pawn from E7. First, press down on the E7 pawn.*

*The board lights and display window 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 display window shows the move to be taken back, and the **to** square of that move is also indicated with the board lights. Press the indicated piece down on the square, and GK2100 shows you where that piece came **from**. Press the piece down on the **from** square to complete the take-back. Repeat this procedure to retract more moves.

You may take back up to 50 half-moves in any position. You may, therefore, take back up to 25 moves for each side.

*After taking back a capture, the computer reminds you to put the captured piece back on the board—the piece and its square are displayed, and the board lights for that square are on. Put the indicated piece back on the board and press down on that square to complete the take-back.*

## 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. Note that pressing **CLEAR** and **ENTER** simultaneously also resets the computer for a new game.

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

## 6 Too Easy or Too Hard? Change the Level!

When the computer is first turned on, it is set to Level 4 (five seconds a move). However, you may choose any of the 64 levels described in Section 3. *Change the levels by using either of these two methods:*

a. Press **LEVEL**, and the computer displays the current playing level. Change levels one at a time using the ■✚ and □− keys. As a shortcut, press **LEVEL** repeatedly to skip over eight levels at a time. Press **ENTER** to enter your level selection into the computer.

b. Press **LEVEL**, then press a board square to activate a level, using the table in Section 3 as a guide. Press **ENTER** to enter your level selection into the computer.

# 2. MORE BASIC FEATURES

### 2.1 Indication of the Side to Move

When the computer plays Black, it flashes a black square in the display while it is thinking. After it has moved, a white square is displayed steadily to show that it is now White's turn to move. This feature allows you to tell at a glance whether or not the computer is currently 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. Captures are displayed as in G6*H5.

### 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

The computer automatically recognizes castling maneuvers after the King is moved. After you have pressed the King down on its **from** and **to** squares, GK2100 uses the board lights to remind you to move the Rook. Press down on the Rook's indicated **from** and **to** squares to finish the move. Kingside castling is displayed as 0-0, and Queenside castling as 0-0-0.

### Pawn Promotion

When you promote a pawn, first press your pawn down on its **from** square, as usual. To promote to a Queen, press down on the **to** square, and then press the Queen Piece Symbol key. The computer will change your pawn to a Queen.

To *underpromote* (to a Rook, Bishop, or Knight), follow the same basic procedure. First, press your pawn down on its **from** square, then press down on the **to** square. Next, press the corresponding Piece Symbol key for your desired promotion piece to enter that choice into the computer. The computer recognizes your new piece immediately, and begins thinking about its next move.

The computer can also promote and underpromote. When it promotes, the display shows both the pawn and the promoted piece. Remember to change the piece on the board after a pawn promotion.

### 2.3 Illegal Moves/Wrong Moves

Kasparov GK2100 never accepts illegal moves. If you attempt such a move, the computer sounds a low double beep, and the board lights and display 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 execute a computer move correctly, you also hear an error beep and see an error message. This indicates that you are trying to move the wrong piece, or you are moving the computer's piece to the wrong square. If the computer wants to move its pawn from d7-d5, for example, and you press down on d7,

then d6, the display shows Er:d5 briefly, pointing out your error. The display then returns to showing the move again (d7-d5), and the computer expects you to press down on d5 to complete its move.

If you press down on a piece and the **from** square appears in the display, but you decide not to make that move, simply press 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.

### 2.4 Check, Mate and Draw

When a King is in check, the computer first displays the move as usual. After the move is made, CHECK (Check) flashes in the display for a few seconds, along with the checking move. The display then reverts back to showing the clock.

If the computer discovers a forced mate against its opponent, it first displays the move as usual. After the move has been made on the board, the computer flashes a mate announcement along with the move for several seconds (e.g., ♔ in:2 for a mate in 2 moves). The display then goes back to showing the clock.

When a game ends in checkmate, the computer displays the move as usual, and then flashes MATE, along with the mating move, for a brief time after the move has been made. The display then reverts back to showing the clock.

Kasparov GK2100 recognizes draws by stalemate, three-fold repetition, and the 50-move rule. If you are not familiar with these draws, please refer to the Chess Rules section at the back of this manual. After a draw has occurred, the display shows End for stalemate, End:3 for three-fold repetition, and End:50 for a draw by the 50-move rule.

### 2.5 Terminating the Computer's Search

To interrupt the computer while it is thinking, press **ENTER**. 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 Problem Solving Levels, pressing **ENTER** does not cause the computer to make a move. Instead, after a short time the computer sounds an error beep and displays ----- 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 simply by pressing **ENTER** 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 during a game.

### 2.7 Library Openings

At the beginning of a game, the computer's reply is usually instantaneous on many levels, because GK2100 is playing moves which are stored in its *book opening library*. The computer's opening library consists of many positions from grandmaster play. If the current board position is in its opening book, the computer plays a response to that position from its collection of moves, instead of thinking about the move.

Your computer can also handle opening book transpositions, with its built-in Automatic Transposition Manager. A transposition occurs when a position reached by a certain set of moves can also be reached when those same moves occur in a different order.

*GK2100 has a unique user-selectable book feature, which lets you choose from various types of opening books, or even turn the book off, if desired. For details, see Section 6.2.*

### 2.8 Thinking on the Opponent's Time

As you play, you may notice that the computer sometimes replies to your moves instantaneously, even in the middle of games played on the higher levels. This is because the computer thinks on your time, using the time you are contemplating your next move to think ahead and plan its strategies. It tries to anticipate the move you are likely to make, and then calculates its responses for that particular move while you are still thinking. If it has guessed right, there is no reason for it to keep on calculating—it immediately plays the move it has already found!

*You may turn this feature off by choosing the Easy Mode option, as described in Section 6.2.*

### 2.9 Game Memory

You may interrupt a game at any time by pressing **GO/STOP**. Play is then suspended, and the computer "remembers" the current position for up to one year (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 symbol in the display. If you see □ or ■ flashing, it is the computer's turn, and Kasparov GK2100 is currently thinking about its move.
- ***Did you execute the computer's last move incorrectly?*** If the display shows an error message, Er:d5 for example, press the indicated square (d5, in this case) to correct the problem and complete the computer's move.
- ***Does the computer merely beep and keep displaying 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—GK2100 knows all the rules 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 5.1.
- ***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 Auto Answer option may be turned off—this option must be turned ON for the computer to respond with its moves automatically (see Section 6.1).

## 3. LEVELS OF SKILL

Your GK2100 chess computer has 64 different playing levels, including levels for casual play, tournament levels, speed chess and problem solving levels, and even levels especially for beginners. When you set the playing 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

There are two methods of setting the playing level. You can choose levels by using the game keys or the board squares. Whichever method you use, you must always press **LEVEL** first to enter Level Mode. Note that changing a level always resets the chess clocks.

To select a level using the game keys, first press **LEVEL**, and the computer displays the current playing level. When the computer is first turned on, it is set on Level 4 (5 seconds a move), and the display shows L 0:05. Change the levels one at a time by using the ■✚ and □− keys. As a shortcut, press **LEVEL** repeatedly to skip over 8 levels at a time. When the display shows the desired level, press **ENTER** to enter your selection into the computer and exit Level Mode.

*If you are using the keys to verify the level but you do not wish to change levels, simply press **CLEAR** to exit Level Mode. This allows you to exit Level Mode without changing the level or clock settings.*

Another method of changing levels is to use the board squares. As indicated in the following chart, each of the 64 squares corresponds to one 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 and the level shows in the display, press

**SELECT YOUR PLAYING LEVELS FROM THE 64 BOARD SQUARES**

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 8 | 30 seconds per move [L 0:30] | 15 minutes per move [L15:00] | 40 moves in 3:00 [3:00:40] | 90 minutes per game [1:30:99] | Infinite Level [9:99:99] | Mate in 8 [∓ in: 8] | Search Depth 8 ply [PLY: 8] | Search Depth 16 ply [PLY: 16] |
| 7 | 20 seconds per move [L 0:20] | 10 minutes per move [L10:00] | 50 moves in 2:00 [2:00:50] | 60 minutes per game [1:00:99] | Fun Level #7 [Fun: 7] | Mate in 7 [∓ in: 7] | Search Depth 7 ply [PLY: 7] | Search Depth 15 ply [PLY:15] |
| 6 | 15 seconds per move [L 0:15] | 5 minutes per move [L 5:00] | 45 moves in 2:30 [2:30:45] | 45 minutes per game [0:45:99] | Fun Level #6 [Fun: 6] | Mate in 6 [∓ in: 6] | Search Depth 6 ply [PLY: 6] | Search Depth 14 ply [PLY:14] |
| 5 | 10 seconds per move [L 0:10] | 3 minutes per move [L 3:00] | 40 moves in 2:00 [2:00:40] | 30 minutes per game [0:30:99] | Fun Level #5 [Fun: 5] | Mate in 5 [∓ in: 5] | Search Depth 5 ply [PLY: 5] | Search Depth 13 ply [PLY:13] |
| 4 | 5 seconds per move [L 0:05] | 2 minutes per move [L 2:00] | 35 moves in 1:30 [1:30:35] | 20 minutes per game [0:20:99] | Fun Level #4 [Fun: 4] | Mate in 4 [∓ in: 4] | Search Depth 4 ply [PLY: 4] | Search Depth 12 ply [PLY:12] |
| 3 | 3 seconds per move [L 0:03] | 1.5 minutes per move [L 1:30] | 40 moves in 1:45 [1:45:40] | 15 minutes per game [0:15:99] | Fun Level #3 [Fun: 3] | Mate in 3 [∓ in: 3] | Search Depth 3 ply [PLY: 3] | Search Depth 11 ply [PLY:11] |
| 2 | 2 seconds per move [L 0:02] | 1 minute per move [L 1:00] | 35 moves in 1:45 [1:45:35] | 10 minutes per game [0:10:99] | Fun Level #2 [Fun: 2] | Mate in 2 [∓ in: 2] | Search Depth 2 ply [PLY: 2] | Search Depth 10 ply [PLY:10] |
| 1 | 1 second per move [L 0:01] | 45 seconds per move [L 0:45] | 40 moves in 1:30 [1:30:40] | 5 minutes per game [0:05:99] | Fun Level #1 [Fun: 1] | Mate in 1 [∓ in: 1] | Search Depth 1 ply [PLY: 1] | Search Depth 9 ply [PLY: 9] |

A B — NORMAL PLAYING LEVELS (Average Time Per Move)
C — TOURNAMENT LEVELS
D — SPEED CHESS LEVELS
E — FUN LEVELS/ INFINITE LEVEL
F — PROBLEM SOLVING LEVELS
G H — TRAINING LEVELS (Fixed Search Depth)

**ENTER** to enter your selection into the computer and exit Level Mode.

*When making your selection via the board squares, pressing **CLEAR** has the same effect as pressing **ENTER**—it enters your level into the computer.*

### 3.1 Normal Playing Levels (Squares A1-B8)

| LEVEL | TIME PER MOVE | DISPLAY |
|---|---|---|
| 1 | 1 second | L 0:01 |
| 2 | 2 seconds | L 0:02 |
| 3 | 3 seconds | L 0:03 |
| 4 | 5 seconds | L 0:05 |
| 5 | 10 seconds | L 0:10 |
| 6 | 15 seconds | L 0:15 |
| 7 | 20 seconds | L 0:20 |
| 8 | 30 seconds | L 0:30 |
| 9 | 45 seconds | L 0:45 |
| 10 | 1 minute | L 1:00 |
| 11 | 1.5 minutes | L 1:30 |
| 12 | 2 minutes | L 2:00 |
| 13 | 3 minutes | L 3:00 |
| 14 | 5 minutes | L 5:00 |
| 15 | 10 minutes | L 10:00 |
| 16 | 15 minutes | L 15:00 |

The first 16 levels are the normal playing levels. When you pick one of these levels, you are selecting an average response time for the computer.

*These 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.*

### 3.2 Tournament Levels (Squares C1-C8)

| LEVEL | MOVES | TIME | DISPLAY |
|---|---|---|---|
| 17 | 40 | 1 hour 30 min. | 1:30:40 |
| 18 | 35 | 1 hour 45 min. | 1:45:35 |
| 19 | 40 | 1 hour 45 min. | 1:45:40 |
| 20 | 35 | 1 hour 30 min. | 1:30:35 |
| 21 | 40 | 2 hours | 2:00:40 |
| 22 | 45 | 2 hours 30 min. | 2:30:45 |
| 23 | 50 | 2 hours | 2:00:50 |
| 24 | 40 | 3 hours | 3:00:40 |

The Tournament Levels require you to make a certain number of moves within a given amount of time. If a player exceeds the allotted time for a given number of moves, the computer beeps and flashes t IME (time) along with the elapsed time to show the game is over.

*If you select a Tournament Level, you may want to set the chess clocks to display countdown time instead of the elapsed time (see Section 6.1). When the game time runs out, the countdown clock automatically reverts back to the normal clock display.*

### 3.3 Speed Chess Levels (Squares D1-D8)

| LEVEL | TIME PER GAME | DISPLAY |
|---|---|---|
| 25 | 5 minutes | 0:05:99 |
| 26 | 10 minutes | 0:10:99 |
| 27 | 15 minutes | 0:15:99 |
| 28 | 20 minutes | 0:20:99 |
| 29 | 30 minutes | 0:30:99 |
| 30 | 45 minutes | 0:45:99 |
| 31 | 60 minutes | 1:00:99 |
| 32 | 90 minutes | 1:30:99 |

On the Speed Chess Levels (also called "Sudden Death" Levels), you set the total time for the whole game. If the game time is exceeded, the computer beeps and flashes t IME (along with the elapsed time) to indicate that the game is over.

*If you select a Speed Chess Level, you may want to set the chess clocks to display countdown time instead of the elapsed time (see Section 6.1). When the game time runs out, the countdown clock automatically reverts back to the normal clock display.*

### 3.4 Fun Levels (Squares E1-E7)

| LEVELS | DISPLAYS |
|---|---|
| 33-39 | Fun: 1 - Fun: 7 |

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 GK2100 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 33 (Fun: 1) 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 34, 35, and 36 are similar to 33, 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 36 only occasionally gives pieces away. On Fun Levels 37 through 39, the computer does not actually give away material—here, GK2100 plays more like a beginner who has learned the basics of the game, and the levels get progressively smarter when it comes to material. On these levels, 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. Therefore, although Levels 37 through 39 may really be "smarter" than Levels 33 through 36, they are still very much "fun" levels, giving beginners a chance to win!

### 3.5 Infinite Level (Square E8)

| LEVEL | TIME | DISPLAY |
|---|---|---|
| 40 | Infinite | 9:99:99 |

On the Infinite Level, the computer searches indefinitely, until it finds a forced mate or until you stop

the search by pressing **ENTER**. If the search is halted, the computer makes the move it currently thinks is best.

You can use the Infinite Level to have the computer analyze complicated positions for hours or even days!

### 3.6 Problem Solving Levels (Squares F1-F8)

| LEVEL | PROBLEM | DISPLAY |
|---|---|---|
| 41 | Mate in 1 | ∓ in: 1 |
| 42 | Mate in 2 | ∓ in: 2 |
| 43 | Mate in 3 | ∓ in: 3 |
| 44 | Mate in 4 | ∓ in: 4 |
| 45 | Mate in 5 | ∓ in: 5 |
| 46 | Mate in 6 | ∓ in: 6 |
| 47 | Mate in 7 | ∓ in: 7 |
| 48 | Mate in 8 | ∓ in: 8 |

Selecting one of these levels 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 one of the Problem Solving Levels. Kasparov GK2100 will search for the shortest possible solution to mate problems, and can solve mates in up to 8 moves. Mates in 1 to 5 are usually found relatively quickly, whereas solutions taking 6 to 8 moves may take quite some time.

If there is no mate present or if the computer cannot find a mate, it beeps and displays - - - - -. You may continue play, if desired, by simply changing levels.

### 3.7 Training Levels (Squares G1-H8)

| LEVEL | DISPLAY | LEVEL | DISPLAY |
|---|---|---|---|
| 49 | PLY: 1 | 57 | PLY: 9 |
| 50 | PLY: 2 | 58 | PLY: 10 |
| 51 | PLY: 3 | 59 | PLY: 11 |
| 52 | PLY: 4 | 60 | PLY: 12 |
| 53 | PLY: 5 | 61 | PLY: 13 |
| 54 | PLY: 6 | 62 | PLY: 14 |
| 55 | PLY: 7 | 63 | PLY: 15 |
| 56 | PLY: 8 | 64 | PLY: 16 |

On each of the Training Levels, the computer's search depth is limited to a certain number of moves, as shown above. As you cycle through the levels, the computer displays PLY: for each level, along with a number designating the search depth. A *ply* is a half-move (a move for either side). As an example, on Level 49, the computer searches to a depth of 1 ply (PLY: 1), 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 a chance to win!

***TIPS ON CHOOSING A PLAYING LEVEL:***

- ***Are you a beginning player?*** Start out with the Fun Levels or lower Training Levels. These levels restrict the computer's search depth, resulting in weaker play, and giving you the chance to learn about the game and perhaps even win! For even more of a shot at winning, combine one of these levels with the Easy Mode option, so that the computer cannot think on your time! See Section 6.2 for details.
- ***Are you an intermediate or advanced chess player?*** Try the Normal or Tournament Levels, or the higher Training Levels. The Normal Levels range from easy all the way up to a difficult 15-minute response time on Level 16. The Training Levels allow you to set your desired search depth—as you conquer each level, go on to the next one! The Tournament Levels are usually the most challenging.
- ***Want to experiment?*** Try the Speed Chess Levels for fast and exciting games. Or use the Problem Solving Levels to solve problems up to mate in 8—search from a position in one of your games, or set up an actual mate problem!

## 4. GAME INFORMATION

In a normal game of chess, you would never ask your opponent what move he was considering, nor would you ask his evaluation of the current position. Playing against Kasparov GK2100, however, allows you to do just that! In fact, this chess computer gives you a wealth of information about its thought process—it shows you the move it is currently considering, the continuation it expects after that, its evaluation of the current position, its search depth, and more. Studying this information will help you learn more about chess!

### Using Info Mode

You may access this information at any time by using GK2100's Info Mode. If you do this while the computer is thinking, you will see the displays change as the computer considers various moves and searches deeper. Some of the displays may change even if you access Info Mode during your turn—because the computer never stops thinking, even during your move!

Game information is divided into four groups, and pressing **INFO** cycles from one group to another. The arrow keys can be used to cycle through the information within each of the groups, as described below.

After familiarizing yourself with Info Mode, refer to Section 6.3 for a description of the user-programmable Rotating Display feature. Selecting this feature makes the computer automatically cycle through all the game information described below in one-second intervals every time it thinks about its move—you can actually watch the computer "think out loud"!

*There may be instances when some of the game information is not available. In such a case, the display window will show - - - - -.*

### 4.1 Principal Variation

Pressing **INFO** the first time shows you the first move of the principal variation (the line of predicted play). This first move is the move the computer is currently considering making. Use the ■✚ and □− keys to see the rest of the moves. The variation will be shown to a maximum depth of 6 ply, or 6 half-moves.

***FOR PRINCIPAL VARIATION INFORMATION:***

| PRESS | DISPLAY |
|---|---|
| **INFO**(x1) | 1st move of principal variation |
| ■✚ key | 2nd move of principal variation |
| ■✚ key | 3rd move of principal variation |
| ■✚ key | 4th move of principal variation |
| ■✚ key | 5th move of principal variation |
| ■✚ key | 6th move of principal variation |

### 4.2 Search Information

Pressing **INFO** the second time gives information on the computer's search. Use the ■✚ and □− keys to cycle through this information, as shown below.

***FOR SEARCH INFORMATION:***

| *PRESS* | *DISPLAY* |
|---|---|
| **INFO**(x2) | Computer's evaluation of the current position (number is based on a pawn being worth 1.0 points; positive number indicates White is ahead) |
| ■✚ key | Two numbers: Current search depth (number of half-moves the computer is looking ahead); **and** number of moves examined so far |
| ■✚ key | Current move under consideration |
| ■✚ key | Number of positions (nodes) computer is currently examining every second |

### 4.3 Chess Clocks

Pressing **INFO** a third time gives you access to the chess clocks. Use the ■✚ and □− keys to cycle through five different clock displays, as shown below.

The chess clocks keep track of the time for both sides. The clocks stop whenever you take back a move, change the playing level, select options, verify or set up a position, or press **GO/STOP** to turn the unit off. In each of these cases, however, the times are retained in memory, and the clocks resume as soon as play is continued. Whenever **NEW GAME** is pressed, the chess clocks are always reset to 0:00:00.

***FOR CHESS CLOCK INFORMATION:***

| *PRESS* | *DISPLAY* |
|---|---|
| **INFO**(x3) | Elapsed time since the last move was executed on the board |
| ■✚ key | Elapsed time for White |
| ■✚ key | Elapsed time for Black<br>During the above two displays, Piece Symbols will turn on one by one (♙, ♘, ♗, ♖, ♕, ♔) to indicate that time is counting up. |
| ■✚ key | Remaining time for White* |
| ■✚ key | Remaining time for Black*<br>During the above two displays, Piece Symbols will turn on one by one (♔, ♕, ♖, ♗, ♘, ♙) to indicate that time is counting down.<br>**Speed Chess/Tournament Levels only. On other levels, the display will show -----.* |

### 4.4 Move Count

Pressing **INFO** the fourth time shows the number of White moves played in the game so far. At this point, you may use the ■✚ and □− keys to cycle through the last moves of the current game (up to 50 half-moves).

***FOR MOVE COUNT INFORMATION:***

| *PRESS* | *DISPLAY* |
|---|---|
| **INFO**(x4) | Number of White moves played so far |
| ■✚/□− | Moves of current game |

### 4.5 Move Suggestions

The computer will give you a move suggestion if you would like advice on any particular move. Press **INFO** when it is your turn to move, and the computer will display its suggested move.

***FOR A MOVE SUGGESTION:***

| *PRESS* | *DISPLAY* |
|---|---|
| **INFO**(on your turn) | Suggested move |

***SUMMARY OF INFO MODE DISPLAYS***

- **PRESS INFO:** 1st move of principal variation
  - **Press ■✚:** 2nd move of principal variation
  - **Press ■✚:** 3rd move of principal variation
  - **Press ■✚:** 4th move of principal variation
  - **Press ■✚:** 5th move of principal variation
  - **Press ■✚:** 6th move of principal variation
- **PRESS INFO:** Computer's evaluation of position
  - **Press ■✚:** Search depth & moves examined
  - **Press ■✚:** Move currently being considered
  - **Press ■✚:** Nodes examined per second
- **PRESS INFO:** Time since last move was made
  - **Press ■✚:** Elapsed time for White
  - **Press ■✚:** Elapsed time for Black
  - **Press ■✚:** Remaining time for White*
  - **Press ■✚:** Remaining time for Black*

  **Speed Chess/Tournament Levels only*
- **PRESS INFO:** Number of White moves played
  - **Press ■✚/□−:** Moves of current game
- **PRESS INFO:** Move suggestion (on your turn)

## 5. VERIFYING/SETTING UP POSITIONS

### 5.1 Verifying Board Positions

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

***TRY OUT VERIFY MODE!***

| *PRESS* | *DISPLAY* |
|---|---|
| **NEW GAME** | □, 0:00:00 *(new game, White to move)* |
| ♘ key | □, ♘, b1 *(1st square occupied by White Knight)* |
| ♘ key | □, ♘, G1 *(2nd square occupied by White Knight)* |
| ♘ key | ■, ♘, b8 *(1st square occupied by Black Knight)* |
| ♘ key | ■, ♘, G8 *(2nd square occupied by Black Knight)* |
| ♘ key | ♘ *(no more Knights on the board)* |
| **CLEAR** | *Exit Verify Mode* |

When it is your turn, press one of the Piece Symbol keys (♔, ♕, ♖, ♗, ♘, or ♙). The computer uses the board lights and display window to show you where the first piece of that type is located on the board. The board lights indicate the square, and the display shows the piece symbol, the color indicator, and the square designation. 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, the board lights go out and only the piece symbol remains in the display.

Repeat the above procedure using the other Piece Symbol keys, verifying the entire board if desired. Press **CLEAR** to return to normal game play.

### 5.2 Changing and Setting Up Positions

Kasparov GK2100 lets you easily set up special board positions to play from or problems you would like

the computer to solve for you.

***TRY OUT POSITION MODE!***

| *PRESS* | *DISPLAY* |
|---|---|
| **NEW GAME** | □, 0:00:00 *(new game, White to move)* |
| **POSITION** | -POS- *(enter Position Mode)* |
| **Square D2** | □, ♟ and -d2 *(remove White pawn from D2)* |
| **Square D4** | □, ♟ and +d4 *(move White pawn to D4)* |
| **■+** | ■, ♟ *(choose color: Black)* |
| **Square D8** | ■, ♛ and -d8 *(remove Black Queen from D8)* |
| **Square H5** | ■, ♛ and +H5 *(add Black Queen to H5)* |
| **□−** | □, ♛ *(choose color for side to move next: White)* |
| **CLEAR** | □, 0:00:00 *(exit Position Mode, White to move)* |

Press **POSITION** to enter Position Mode, and the display shows -POS-. You may change or set up a board position at any time during a game, whenever it is your turn to move. After you have set up your desired position, always press **CLEAR** to exit Position Mode.

- **To remove a piece from the board,** press the piece down gently on its square and remove the piece. Notice that the display indicates the piece type and color, and a minus sign along with the location for that square.
- **To move a piece from one square to another,** press the piece down on its original square, pick it up, and then press it down on the new square. As you do this, the display will show a minus sign for the first square, and a plus for the second.
- **To add a piece to the board,** first press the Piece Symbol key for that piece (♔, ♕, ♖, ♗, ♘, or ♙). Make sure the color symbol in the display window shows the correct color for the piece you wish to add. If not, press the ■+ or □− key to change the color. When the display shows the correct piece type and color, place that piece on the desired square and press down gently. To add another piece of the same type, simply press down on another square. To add a different piece, press a different Piece Symbol key and follow the same steps as above.
- **To clear the board,** press **ENTER** while in Position Mode. The display shows [ ]. Press **ENTER** again to confirm that you want to clear the board. Then add pieces as described above. *Note: This feature can come in very handy if you want to set up a special position which contains only a few pieces, where it would be much easier to start out with an empty board.*
- **Once you have changed the board position as described above,** make sure that the color indicator in the display is showing the correct color of the side to move. Change the color if necessary by pressing the ■+ or □− key.
- **Press CLEAR to exit Position Mode.**

*You may set up any legal position. The computer will not permit you to set up an illegal position, such as one where there are more than the prescribed number of pieces for a normal game, or one where a King is in check and is not to move.*

***CAUTION:** All previous moves in the current game will be erased from the computer's memory if you make changes to the position during a game.*

# 6. GAME OPTIONS

In addition to all the features described so far, GK2100 offers you many other game options. These options are user-selectable anytime during the game.

### Selecting Game Options

The computer's game options are divided into 3 groups: Operation Mode, Playing Mode, and Rotating Display Mode. Pressing **OPTION** cycles from one group to another. Each group contains 8 different options, and the ■+ and □− keys are used to cycle through the options within each of the groups. For each option, a plus in the display indicates the displayed option is ON, and a minus means the option is OFF. Press **ENTER** to turn each option on or off as it is displayed. After you have made all your option selections, press **CLEAR** to return to normal game play.

When the computer is first powered on or when new batteries are inserted, certain default options are set. Options which are automatically on at the first startup are shown on the chart with a plus, and options which are off are shown with a minus. Whenever **NEW GAME** is pressed, most of your selected options are carried over to your next game. The only two which go back to their default state when you start a new game are Auto Answer and Play White from the Top.

## 6.1 Operation Mode Options

These eight options affect how you operate your computer. **Press OPTION once to select this group,** and then use the ■+ and □− keys to select the options. Press **ENTER** to turn options on (+) or off (–).

### Auto Answer Mode

Normally, the computer automatically answers with a countermove whenever you enter a move. If you turn Auto Answer off by choosing -Auto, however, you can enter any number of moves one by one, without letting the computer 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 Auto Answer off also allows you to play against another person, with the computer acting as referee and checking the legality of all moves.

*When playing against another person, if either side needs help from the computer, press **INFO** to see a suggested move. If you want to know what the computer would do in a certain position, press **ENTER** and GK2100 will make the next move. After it has made the move, Auto Answer will remain turned off, and you can continue your game.*

***TRY TURNING AUTO ANSWER OFF!***

- Play through master games. Press **ENTER** to get the computer's analysis of any position.
- Replay to a certain position for further study.
- Study book lines by entering them manually.
- Play against a friend, with GK2100 checking all moves for legality and keeping track of time.

### Sound

This option allows you to turn off the sound that accompanies each keypress by choosing -Snd. You will still hear beeps when the computer makes its move or when an illegal move or keypress is attempted.

*The Volume Control Switch sets the beeper volume to low (small speaker symbol) or high (large speaker).*

## OVERVIEW OF THE GAME OPTIONS*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ROTATING DISPLAY OPTIONS | Principal Variation 1st ply [–RD: 1] | Principal Variation 2nd ply [–RD: 2] | Principal Variation 3rd ply [–RD: 3] | Principal Variation 4th ply [–RD: 4] | Position Evaluation [–RD: E] | Search Depth/Moves Examined [–RD: D] | Nodes Searched per Second [–RD: N] | Time per Move [–RD: T] |
| PLAYING MODE OPTIONS | Selective Search [+SEL] | Easy Mode [–EASY] | Randomize Play [–RAND] | Book On/Off [+BOOK] | Full Book [–BK:FL] | Passive Book [–BK:PA] | Active Book [–BK:AT] | Tournament Book [–BK:TN] |
| OPERATION MODE OPTIONS | Auto Answer Mode [+AUTO] | Sound [+SND] | Silent Reply Mode [–SIL] | Coach Mode [–CO:CH] | Ticking Clock [–TIC] | Countdown Clock [–C:DN] | Play White From Top [–TOP] | Auto Power Down [–APD] |

*option on = +, option off = – (defaults are shown)*

**Silent Reply Mode**

Normally, the computer will beep when it has found its move. Turning on Silent Mode by selecting +SIL allows for completely silent operation of the game.

**Coach Mode**

Selecting +Coach activates GK2100's special Coach Mode, which encourages beginners to improve their skills and understanding of the game. When this mode is enabled, the computer warns you when it thinks you have committed a blunder (except on the Fun Levels). It does this by sounding a double warning beep and flashing the move it intends to make. At this point, you can either enter the computer's move, or take back your own move and make another one.

When Coach Mode is activated, the computer will also warn you when you are in danger of losing a piece. If one of your pieces is being threatened by a lesser valued piece, for example, GK2100 sounds a double warning beep and flashes the lights of the threatened piece for a few seconds. To continue the game, either make your next move without pressing **TAKE BACK**, or take back your last move and make another one.

**Ticking Clock**

When you turn on the unique Ticking Clock option by choosing +tic, you activate a ticking sound that makes the computer's chess clock sound like a real chess clock! Create the atmosphere of an actual championship tournament in your very own living room!

**Countdown Clock**

Activate this option by selecting +c:dn. Now the computer displays the countdown time instead of the elapsed time. Note that this option is only available when using Tournament or Sudden Death levels.

**Play White from the Top**

You may want to depart from the usual standard and have the computer play the White pieces from the top of the board. Turn this option on by choosing +toP at the beginning of a new game. 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.

*Board set-up with White at the top*

**Auto Power Down**

The Auto Power Down option is a battery-saving feature. When this option is turned on by selecting +APd, the computer will automatically turn itself off after 15 minutes if there are no keypresses or moves made during that time. To continue the game where you left off, press **GO/STOP** to turn the computer back on.

*The computer will not turn itself off while it is thinking about a move.*

**6.2 Playing Mode Options**

These 8 options affect how the computer selects its moves. **Press OPTION twice to choose this group**, and then use the ■+ and □– keys to select the options. Press **ENTER** to turn options on (+) or off (–).

**Selective Search**

Kasparov GK2100 normally uses a selective search algorithm. This allows the computer to see combinations that would otherwise take much longer to compute. Turning this option off by choosing -SEL makes the program switch to a brute force algorithm. This minimizes the risk of an occasional oversight.

**Easy Mode**

Turn on Easy Mode by displaying +EASY if you want to prevent the computer from thinking on your

time. This effectively weakens all playing levels without affecting the computer's time controls. Normally, as described in Section 2.8, the computer thinks on your time, using the time you are contemplating your next move to think ahead and plan its strategies. This feature is part of what makes your chess computer such a tough opponent. By using Easy Mode to make all the levels weaker, you are thus given the option of having many more levels to choose from.

**Randomize Play**

Turn on +rAnd for greater variety of play. Instead of choosing the single best move, the computer will choose one of the best moves to play by consulting its built-in Randomizer.

**Book On/Off**

Activate this option to lock out the computer's opening book completely. When you turn the book off by choosing -boo, the computer is forced to take time and think of its moves from the very beginning of the game, rather than using book moves.

**Full Book**

Turning on the Full Book option with +bk:FL gives the computer the freedom to choose any move from its opening book, so you will see a greater variety of book lines being played.

*With this option on, the computer may make some questionable moves. This is because its opening book must contain responses to certain lines of play (even questionable lines) in case they are played. While the computer would not make these moves on its own, it must know how to respond to them in the best manner. When you turn on the complete book, the computer could potentially play one of these moves.*

**Passive Book**

Choosing +bk:Pa forces the computer to give preference to passive openings and closed positions when deciding which opening to play. For details on book openings, see Section 2.7.

**Active Book**

When this option is turned on by picking +bk:at, the computer gives preference to active lines and gambits when it is deciding which opening line to play.

**Tournament Book**

When you select +bk:tn to turn the Tournament Book option on, the computer is forced to always select the best possible line of play in any opening position. While this results in the best play, it also narrows down the computer's choice of moves by limiting its available book lines.

**6.3 Rotating Display Options**

Normally, the computer's display window shows the time for the player to move. However, the computer can also display other information, as described in Section 4 (Info Mode). The Rotating Display feature works hand-in-hand with Info Mode, since it allows you to choose which of the info displays you want to see, and then cycles your choices in one-second increments. You may turn on any or all of the Rotating Display options, as desired.

If you find that the display information is changing too quickly when it cycles, press **INFO** to freeze the display. Successive presses of **INFO** and the arrow keys will then cycle you through all the different displays manually, as described in Section 4. To start the display rotation again, press **OPTION** and then **CLEAR**. In any event, when the computer starts thinking about its next move, the display automatically starts rotating again.

***IMPORTANT:*** *The rotating display feature is only activated while the computer is thinking.*

**To set the Rotating Display, first press OPTION three times to select this group of options**. Then use the ■+ and □− keys to select the options you want to rotate. Press **ENTER** to turn options on (+) or off (–).

***TURN ON THE ROTATING DISPLAY OPTIONS AND WATCH THE COMPUTER THINK!***

| | |
|---|---|
| **Principal line – 1st move** | +rd:1 |
| **Principal line – 2nd move** | +rd:2 |
| **Principal line – 3rd move** | +rd:3 |
| **Principal line – 4th move** | +rd:4 |
| **Evaluation of position** | +rd:E |
| **Search depth/move count** | +rd:d |
| **Nodes per second** | +rd:n |
| **Time taken per move** | +rd:t |

# 7. TECHNICAL DETAILS

**7.1 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 resets the computer and clears its memory.

**7.2 Care and Maintenance**

Your GK2100 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.

**7.3 Technical Specifications**

| | |
|---|---|
| Processor Speed: | 10 MHz |
| Program Memory: | 32768 bytes ROM |
| RAM Memory: | 1024 bytes |
| Keys: | 17 |
| LED Lamps: | 16 |
| LCD Display: | 48-segment LCD |
| Sound: | Piezo-electric buzzer |
| Current: | 20mA maximum |
| Batteries: | 6 C cells (AM2/R14) |
| Battery Life: | 120 hours (new alkalines) |
| Mains Adapter (optional): | 9V DC at 300mA |
| Dimensions: | 419 x 283 x 37mm |
| Weight: | 1.3kg |

*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. | *Batteries not inserted properly.* | See instructions for installing batteries in Section 1. |
| | *Batteries weak or bad.* | Replace the batteries (see Section 1). |
| | *Static discharge or an electrical disturbance has caused the computer to lock up.* | Press into the hole marked **ACL**, as described in Section 7.1. |
| 2. LCD display is difficult to read. | *Weak batteries.* | Replace the batteries (see Section 1). |
| 3. The computer will not play a move. | *Auto Answer option is turned off.* | The computer only plays automatic responses to your moves if the Auto Answer option is on (see Section 6.1). |
| | *You may be on a level which causes the computer to think for a long time (e.g., Infinite or Problem Solving Levels).* | You may interrupt the computer's thought process and force it to make a move, if desired, by pressing **ENTER**. |
| 4. The computer will not accept your move. | *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?* | Make sure you are familiar with the chess rules. Use the piece keys to verify the board position (see Section 5.1), use **TAKE BACK** to reconstruct the last move. |
| 5. An error message is displayed when a square is pressed. | *The computer is thinking (its color is flashing in the display).* | To interrupt the computer's thinking, press **ENTER**. |
| | *You have not entered the computer's last move correctly.* | Press the indicated square to complete the computer's move and erase the error message. |
| 6. The computer seems to be making illegal moves. | *The computer has made a special move, such as en passant, castling, or pawn promotion/underpromotion.* | Review the chess rules. Verify the board position as described in Section 5.1, use **TAKE BACK** to reconstruct the last move. |
| | *Your board position is not correct (pieces have been moved).* | Verify the board position (see Section 5.1). |
| | *Batteries are running out.* | Replace the batteries. |
| 7. The computer makes instant or irrational moves. | *The computer may be set on one of the lowest Training Levels or Fun Levels, where it moves very quickly and plays more weakly than normal because its search depth is limited.* | Press **LEVEL** to check which level is currently selected (see Section 3). |
| 8. Board light is out. | *Defective component or contact.* | Consult your Kasparov Distribution Center. |
| 9. Computer does not work with adapter. | *Wrong adapter type, incorrect voltage rating, or defective adapter.* | Check with your dealer. Use only the Saitek recommended mains adapter. |