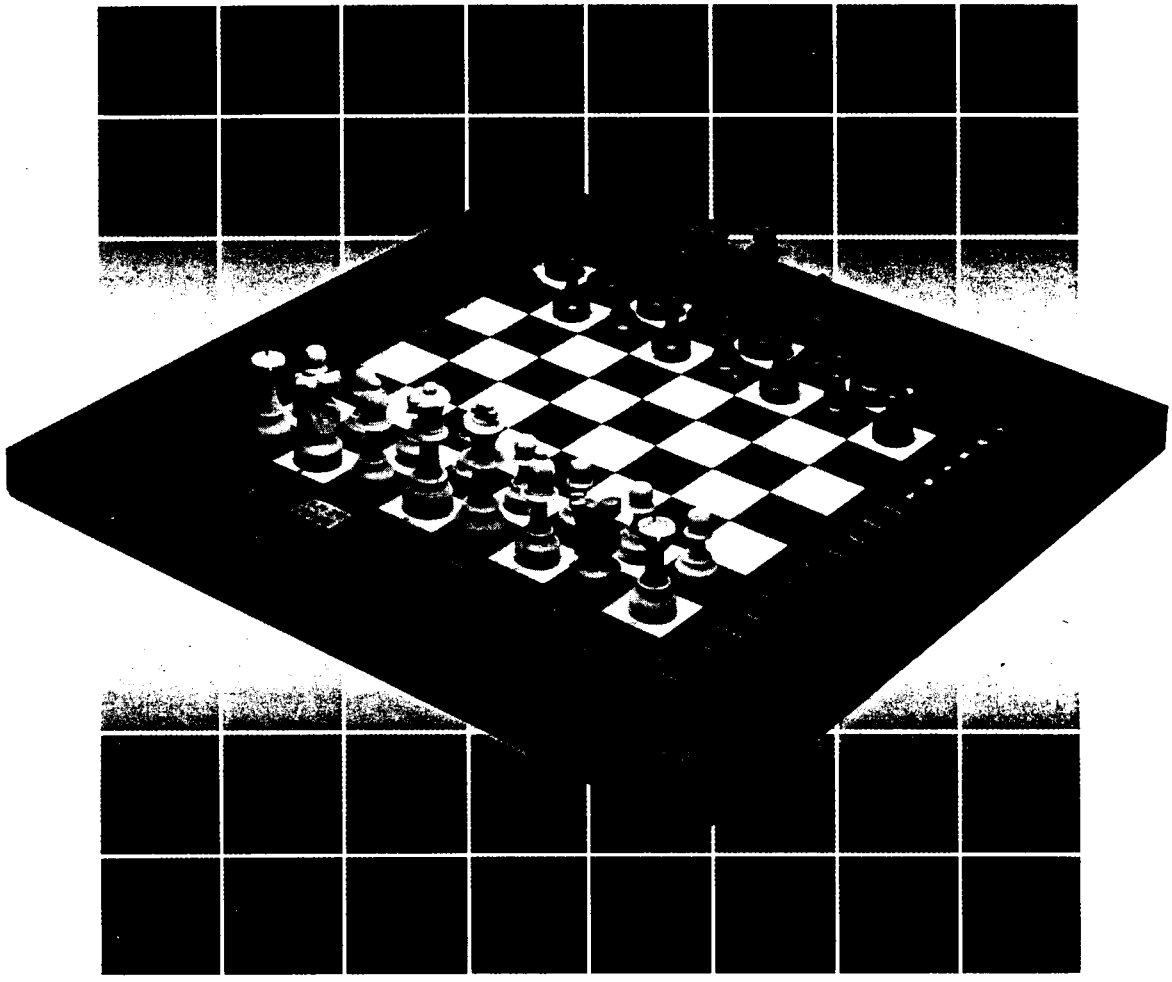
STRATOS™



OWNER'S MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
GEBRUIKSAANWIJZING

Swiss-led
Precision

KASPAROV™
CHESS COMPUTER

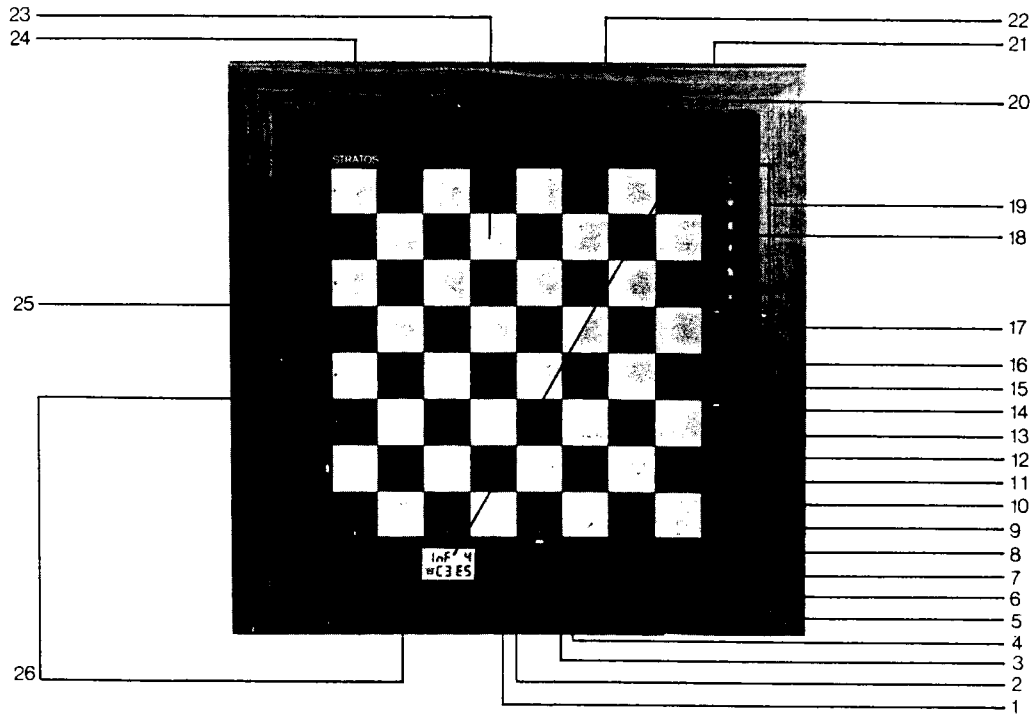
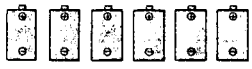


Fig. 1



AM2/C/R14

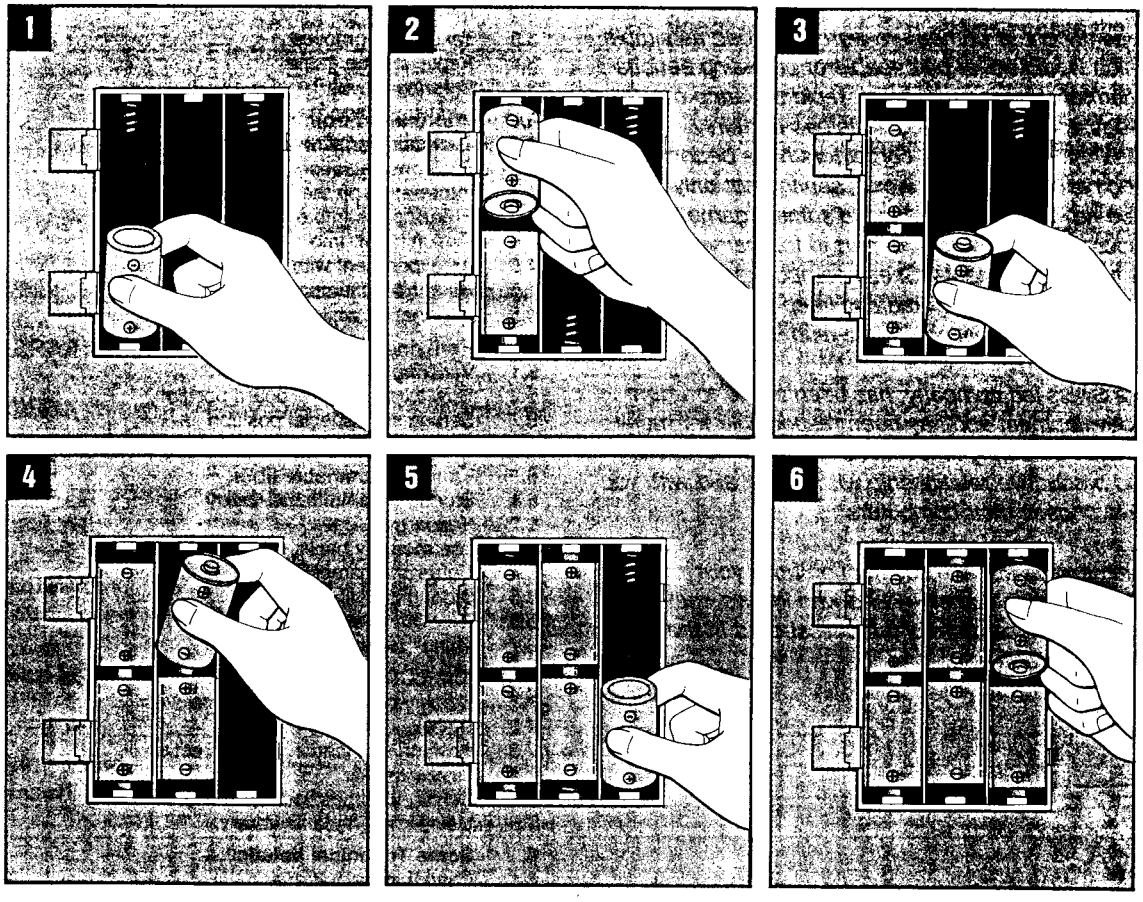


Fig. 2

Kasparov Stratos

Owner's manual

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

Until recently chess computers were regarded as simple toys which would never be capable of providing serious opposition for the enthusiast. The rapid advance of technology and programming skills has 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, a Swiss-led company, has been at the forefront of this development and has been responsible for many of the most interesting innovations. 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

Index

Introduction

1. Getting started
1.1 Batteries
1.2 How you move your pieces
1.3 How the computer moves
1.4 Illegal moves
1.5 Check, Mate, and Draw
1.6 New game
1.7 The chess clocks
1.8 Sound
1.9 Switching the computer off

2. Levels of skill
2.1 Setting a level
2.2 Levels for casual play
2.3 Tournament levels
2.4 Special levels
2.5 Modern tournament levels
2.6 Novice levels
2.7 Other Levels
2.8 Thinking in the opponent's time
2.9 LCD display of levels

3. More features
3.1 Changing sides
3.2 Interrupting the thought process
3.3 Taking back moves
3.4 Replaying the game
3.5 Entering moves

4. Information from the computer
4.1 The main variation
4.2 Position evaluation
4.3 Information on the LCD
4.4 Freezing the Info display
4.5 Switching off Info
4.6 An experiment with Info
4.7 Hints from the computer
4.8 Information while solving problems

5. Verifying and setting up positions
5.1 Verifying board position
5.2 How to change the board position
5.3 Setting up a special position
5.4 Chess problems

6. The programmable library
6.1 Storing a game in the library
6.2 Kasparov Games
6.3 The memory banks
6.4 Retrieving games
6.5 Storing active openings
6.6 Deleting games
6.7 Things to remember

7. The LCD display
7.1 Display during a normal game
7.2 Display in Analysis mode
7.3 Position verification and correction
7.4 Levels of skill
7.5 Setting up a position
7.6 User-Programmable library

8. Some Technical details
8.1 Changing the batteries
8.2 The mains adapter
8.3 The ACL key
8.4 Care and maintenance
8.5 Technical specifications
8.6 Troubleshooting guide

Keys, Lights and Features

KEYS

1. **GO** — Press to switch the computer on. Play is resumed at the point where the STOP key was pressed
2. **STOP** — Press to turn off the computer. The current position is saved in memory
3. **SOUND** — Press to turn sound off or on
4. **NEW GAME** — Press to reset the initial position for a new game and return to Normal mode
5. **+, −** — Used to increment or decrement level setting, Info display, library slots. Also used together with **ANALYSIS** to play forwards or backwards, and together with **FUNCTION** to store or delete games from the library.
6. **TAB/COLOR** — Change color (during position verification or entry) or change column (in level or library mode).
7. **FUNCTION** — "2nd Function" key. Pressing this key alters the meaning of the next keypress
8. **PLAY** — Execute next move. Pressing this key when it is your turn causes the computer to play the next move for you, pressing it when the computer is thinking interrupts the thought process. Computer returns to Normal mode.
9. **INFO** — Press to see the main variation and evaluation
10. **LIBRARY** — Enter library mode (to store or retrieve games)
11. **LEVEL** — Enter level mode (to select level of skill)
12. **SET UP** — Enter set up mode (to change or enter positions)
13. **ANALYSIS** — Enter analysis mode (to take back, replay or enter moves)
14. **NORMAL** — Return from special mode (analysis, set up, level, library) to normal play
18. **Piece keys** — Used to choose promoted pieces, verify board position and set up new positions
23. **Chessboard sensor** — Each square has a sensor that registers piece movement (i.e. when you press a piece down on a square)

LIGHTS

14. **MODE** — Indicates which mode the computer is in: Green = normal play, yellow = analysis, red = set up, yellow flashing = level, red flashing = library, green flashing = verification
15. **END** — End of game (with check = checkmate)
16. **CHECK** — King in check
17. **WHITE/BLACK** — Side to move. When the computer is thinking the appropriate color light flashes
19. **Piece lights** — These are used when the computer promotes a pawn, during takeback (to help you replace pieces), position verification and setup (green for white pieces, red for black pieces), and in info mode to display depth of search (yellow). In library mode they indicate which "bank" you are in.
20. **LCD display** — Gives you a variety of information during all phases of the game
26. **Board lights** — The computer uses the triple-color board lights to indicate game moves (green), take back moves (red), or show you which move it is considering (yellow). They are also used to verify the board position, set the level of skill and display library slots.

FEATURES

21. ROM cover (in base of set)
22. ACL key (in base of set)
24. Battery compartment (in base of set)
25. Socket for mains adapter (optional)

Introduction

Your Kasparov Stratos is an advanced chess computer that automatically registers the moves you make on its built-in sensor chessboard. It has triple-coloured LEDs that make it especially easy to operate, and a special LCD display that gives you a variety of information during the game. The computer can take back any number of moves, replay games, announce mate, and display its thought processes. It has 64 different levels of skill and in addition a unique user-programmable library that allows you to store games, positions and openings in its permanent memory. These features make your Kasparov Stratos one of the most versatile chess computers available.

The built-in openings book contains an extensive selection of solid, popular lines that any master might very well be playing in modern international tournaments and with Garry Kasparov's latest ideas, especially as Black, where the Grünfeld Defense, the Meran Defense, and the Scheveningen Variation of the Sicilian Defense are major weapons. These are aggressive full-scale openings programmed with many variations, and it is difficult to catch the computer in offbeat lines.

Before you start playing with the computer please read at least chapter 1 of this manual. It will teach you the basics: how to make moves, correct errors, and generally understand all the things that might occur during a game. This is enough to give you countless hours of pleasure with the computer.

Chapter 2 deals with the levels of skill and how to change them, and chapter 3 with some very useful features built into the computer. Chapter 4 tells you all about the information you can get from the computer, and chapter 5 about how to verify and set up chess positions. Chapter 6 is devoted entirely to the most advanced feature, the user-programmable library.

We hope that you will have a lot of fun with your Kasparov chess computer and that it will contribute to your enjoyment of this magnificent game.

Important note: This computer has been programmed to play chess with you. It knows all the rules of the game, including castling, en passant, underpromotion, stalemate and draw by threefold repetition or the 50 move rule. Sometimes the computer may appear to be playing irregularly when in fact it is obeying these rules. In case you are not very familiar with the game we have included a copy of the Rules of Chess. If you need additional information your local library is sure to have several books on the subject.

1. Getting started

1.1 Batteries

Your Kasparov chess computer runs on six AM2, R14 or "C" size batteries (you can also use a mains adaptor which your dealer will provide as an option). Open the battery compartment and insert the batteries as shown in Fig. 2. After installing batteries or an adapter, press **PLAY** and **GO** simultaneously to switch on. The computer will conduct a quick self-test of all electronic components, after which it is ready to play chess against you.

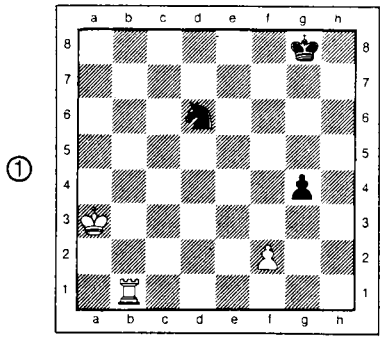
Note: If the computer fails to respond — static discharge can sometimes cause it to lock up — use a paper clip or any other sharp object to press and hold the ACL switch located at the bottom of the set for 1 second to reset the computer.

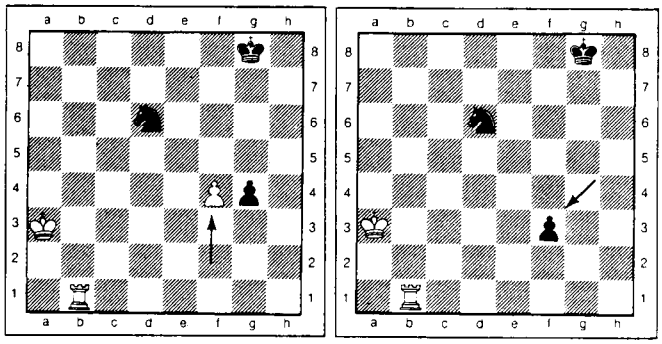
1.2 How you move your pieces

Once you have inserted the batteries you are ready for a first game of chess against the computer. Set up the pieces in the opening position with the white pieces nearest to you. Press **NEW GAME** (you should always do this at the beginning of a game). To make a move first press down on the piece you wish to move. You will hear a short beep. Place the piece on its destination square and press down again. You will hear a second beep and the BLACK light will begin to flash. This means that the computer has accepted your move and has started to compute a reply for Black.

Note: At the beginning of a game the reply will usually be instantaneous on any level because the computer is playing moves that are stored in its "opening book".

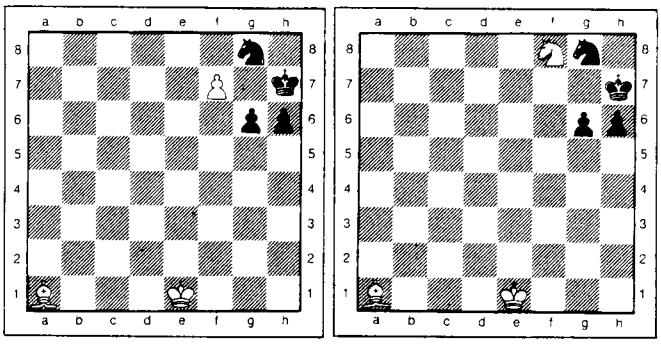
To make a capture you only have to key in the move of the capturing piece. In case of an **en passant** capture the computer will remind you to remove the captured pawn (press it down before removing it). When castling always key in the king's move first. The computer will remind you to move the rook.





En passant

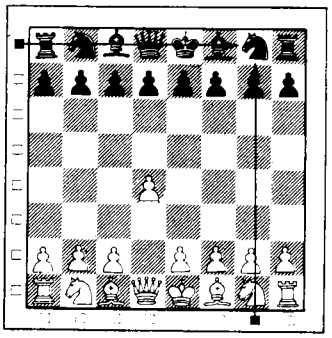
When a pawn promotes it is automatically changed into a queen. If you wish to "underpromote", do so in the following manner: First press down the pawn (which must be on the 7th rank) and remove it from the board. Now press a piece key (rook, bishop or knight) to tell the computer which piece you choose, and finally press the piece you have chosen on the promotion square. (When the computer promotes a pawn it will always tell you which piece it chooses by turning on one of the piece lights during the move).



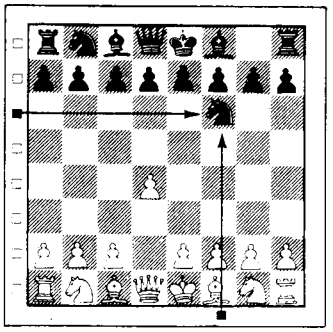
Underpromotion

1.3 How the computer moves

Whenever the computer wants to make a move, it sounds a high double beep and turns on two lights on the side of the chessboard (the "board lights"). These lights indicate the horizontal row and vertical column of the piece it wishes to move. Press this piece down on its square. The computer will now show you where the piece must go. Move the piece to the square indicated and press it down to complete the move.



The computer wants to move this piece. Press it down.



This is where the piece must go. Place it on the square and press it down.

Note that the move is also shown in the LCD display. The board lights are green when you are playing a normal game. We will see later that they turn red when you are taking back moves and yellow when the computer is giving you an insight into its thought process.

1.4 Illegal moves

If you attempt to make an illegal move, the computer will not accept your move. Instead it will keep flashing the square you have just moved. Press it down and the board lights will tell you where the piece came from. Replace it on the square indicated and press down to cancel the move.

If you do not execute a computer move correctly it will sound a low error beep to indicate that you are trying to move the wrong piece (or are moving it to the wrong square). Watch the board lights carefully and move the piece correctly.

1.5 Check, Mate, and Draw

When the computers puts your king into check, the CHECK light will come on. If a game ends in checkmate the END light will come on as well and in the LCD display you will see "# End". You will also hear the characteristic end-of-game signal (high-high-high-low). The WHITE or BLACK lights tells you which side has been checkmated.

The computer may announce a forced mate many moves before it actually occurs. You will hear the end-of-game signal and one of the piece lights 1 to 6 will turn on (yellow), telling you how many moves there are to mate. If the computer is announcing a mate in more than six moves, then it will flash light number 6. The mate announcement will also appear in the LCD display (e.g. "a2-a1, M in 3").

If a game ends in a draw then you will hear the end-of-game signal, and only the END light will be turned on, and in the LCD display the draw sign (" = ") will appear. The computer knows three kinds of draws:

draw by stalemate — the side to move is not in check and has no legal moves;

draw by threefold repetition — a position has occurred three times in the game;

draw by the fifty-move-rule — there has been no capture or pawn advance during the last fifty moves.

1.6 New game

To start a new game simply press **NEW GAME** You will hear the new-game signal (low-high-low-high). You can interrupt a game at any stage by pressing **NEW GAME** — so be careful not to press it by mistake.

1.7 The chess clocks

In a normal game you will always see two clocks in the LCD display. These keep track of the time each side has used up in the game. Initially minutes and seconds are displayed, after 60 minutes the display changes to hours and minutes (with a flashing colon).

Both clocks are reset to "00:00" and white's clock is started when you press **NEW GAME**. When White plays his first move his clock is stopped and Black's clock started. The clocks also keep track of the time when two humans are playing against each other (as described in section 3.5). If you interrupt a game with **STOP** (see section 1.9) both clocks are stopped until the game is resumed with **GO**.

1.8 Sound

If the computer's "beeps" are distracting you or others during a game, you may turn off the sound by pressing **SOUND**. Pressing the key again will turn it back on (you will hear a double beep to confirm this). You must watch the indicator lights and press pieces and keys carefully when playing without sound.

1.9 Switching the computer off

To turn the computer off just press the key marked **STOP**. This is a so-called "soft switch" which you may use at any time, even when the computer is thinking. If you press **GO** and **NORMAL** the computer will come back to life and continue to play (even the clock times are held in memory). You should use **STOP** whenever you interrupt a game for more than a few minutes, as this will conserve battery power.

If you are using fresh batteries the computer will retain the current position (and game) for up to two years.

2. Levels of skill

Your Kasparov chess computer has a total of 64 different levels of skill. They include levels for casual play, tournaments, speed chess, analysis, problem solving and eight special junior levels for beginners. Remember that just like a human being the computer becomes stronger when it has more time to think about its moves.

2.1 Setting a level

When you first switch on the computer, level A1 is automatically set. You may verify this by pressing **LEVEL**. The **MODE** light will begin to flash yellow, indicating that you are in level mode, and two board lights (red) will point to the square A1, which is the level currently set. You will also see the level in the LCD display.

Levels "B,E,F and G" have secondary time controls. These can be displayed on the LCD by pressing **FUNCTION** and **INFO**. Press **FUNCTION** and **INFO** to return to primary time controls.

To change the level press the key marked **+**. The board lights will now point to the square A2. Keep pressing **+** and you will see that all squares from A1 to H8 are successively indicated. The **—** key reverses the direction.

There is one more key to help you change levels. Try pressing **TAB/COLOR** in level mode. This moves the level setting across between the columns (e.g. from A1 to B1). Using **+**, **—** and **TAB/COLOR** you can reach any level very quickly.

You may change the level at the beginning or at any time during a game. Once you have reached the level you want, press **NORMAL** to return to normal play (the MODE light turns green). The new level setting remains unchanged even if you press **NEW GAME**.

2.2 Levels for casual play

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

A1	1 second per move
A2	2 seconds per move
A3	5 seconds per move
A4	15 seconds per move
A5	30 seconds per move
A6	1 minute per move
A7	2 minutes per move
A8	3 minutes per move

The above times are averaged over a large number of moves. In the opening and in the endgame the computer will tend to play faster, but in tactically complicated middle game positions it may take considerably longer on individual moves.

2.3 Tournament levels

Levels B1 to B5 are for tournament play. In these levels the computer will play a certain number of moves in a given amount of time, attempting to meet the so-called "time controls" at certain points in the game. This is exactly what happens in human tournaments. At the time control the arbiter checks to see whether both players have completed the required number of moves.

If one of them hasn't, he loses the game.

Level	Description	Primary time control, Secondary time control
B1	Club tournaments	1st 30 moves in 30 minutes, then 30 moves in 30 minutes
B2	International standard	1st 40 moves in 2 hours, then 20 moves per hour
B3	Grandmaster tournaments	1st 40 moves in 2.5 hours, then 16 moves per hour
B4	Fast tournaments	1st 45 moves in 1.5 hours, then 15 moves in 30 minutes
B5	U.S. Open	1st 50 moves in 2.5 hours, then 20 moves per hour

Take Level B2 as an example: the computer will finish the first 40 moves in 2 hours (primary time control) and then play the following 20 moves within 1 hour (secondary time control). All further moves are played at a rate of 20 moves per hour. In accordance with tournament regulations any time remaining at the primary time control is carried forward to the second phase of the game. If, for instance, the computer has made the first 40 moves on Level B2 in just one hour, it has a total of two hours for its next 20 moves. The remaining time at each time control is accumulated until the end of the game.

Your chess computer built in clocks are running for either Black or White unless you press **STOP**. Press **STOP** if you plan to leave the board for any length of time. Otherwise under tournament conditions it may play irrationally or instantaneously.

2.4 Special levels

The B-column has three more levels:

Level	Description
B6	10 seconds per move — a special form of speed chess in which both players must make each move in exactly 10 seconds.
B7	Analysis Level — The computer will go on thinking until you interrupt it (by pressing **PLAY**). You can use this level to have the computer analyse complicated positions for many hours or even days.
B8	Problem solving level (up to mate in 10)

On level B8 the computer searches for a forced mate and will only play a move when it actually finds one. If it does, then it will announce mate and play the key move. You can try to defend for the other side, but the computer will checkmate against any defence.

If the computer does not play a move on level B8, then it means that the problem has no solution (check that you have entered the position correctly), or that it is too long. Theoretically the computer can find mates in up to 10 moves, but solving mates in six or more moves can take very long — hours, or even days.

In section 5.4 of this manual you will find an example for solving a chess problem with the computer.

2.5 Modern tournament levels

A tournament form that is rapidly gaining popularity is one which requires each player to make all his moves in a certain amount of time. This is independent of how many moves are played in the game. If one side runs out of time without checkmating his opponent then he loses the game ("sudden death", as these tournaments are sometimes referred to). The game may be terminated if it is a technical draw (e.g. if there is insufficient material for mate) or if both players agree to a draw.

In levels C1 to C8 the computer will try to complete all the moves of the game in the time specified below. If it is a very long game you will notice that the computer will keep increasing its speed in an attempt to stay within the time allocation.

C1	5 minutes for the entire game (Blitz chess)
C2	7 minutes for the entire game
C3	10 minutes for the entire game
C4	15 minutes for the entire game
C5	20 minutes for the entire game
C6	30 minutes for the entire game
C7	60 minutes for the entire game
C8	90 minutes for the entire game

2.6 Novice levels

If you are a beginner or a very casual player you may find that the computer is far too strong for you on any of the levels described above. It can be very discouraging to get beaten every single time without ever having a chance to try out simple tactical plans. Especially children can lose interest in the game if there is no element of success.

To meet this problem your Kasparov chess computer has eight special novice levels. On the levels D1 to D8 it plays almost instantaneously on each move. With its power thus tamed, even a beginner should be able to win occasionally. Level D1 is the easiest, and the playing strength of the computer increases gradually up to level D8.

2.7 Other Levels

There are a number of time controls that have become popular in Europe and North America. You are sure to find your favorite amongst the levels E1 to G8.

Level	First time control	Second time control
E1	20 Moves in 30 Min.	Rest in 30 Min.
E2	20 Moves in 30 Min.	20 Moves in 30 Min.
E3	20 Moves in 40 Min.	20 Moves in 40 Min.
E4	25 Moves in 60 Min.	25 Moves in 60 Min.
E5	30 Moves in 45 Min.	30 Moves in 45 Min.
E6	30 Moves in 60 Min.	Rest in 30 Min.
E7	30 Moves in 60 Min.	30 Moves in 60 Min.
E8	30 Moves in 70 Min.	30 Moves in 70 Min.
F1	30 Moves in 75 Min.	30 Moves in 75 Min.
F2	30 Moves in 80 Min.	30 Moves in 80 Min.
F3	30 Moves in 90 Min.	10 Moves in 30 Min.
F4	30 Moves in 100 Min.	30 Moves in 100 Min.
F5	35 Moves in 90 Min.	Rest in 15 Min.
F6	40 Moves in 40 Min.	20 Moves in 20 Min.
F7	40 Moves in 60 Min.	20 Moves in 30 Min.
F8	40 Moves in 80 Min.	20 Moves in 40 Min.
G1	40 Moves in 90 Min.	20 Moves in 45 Min.
G2	40 Moves in 100 Min.	20 Moves in 50 Min.
G3	40 Moves in 105 Min.	Rest in 15 Min.
G4	45 Moves in 120 Min.	23 Moves in 60 Min.
G5	50 Moves in 90 Min.	25 Moves in 45 Min.
G6	50 Moves in 100 Min.	25 Moves in 50 Min.
G7	50 Moves in 120 Min.	25 Moves in 60 Min.
G8	60 Moves in 60 Min.	30 Moves in 30 Min.

H1 to H8 are "experimental" levels in which the computer will search to a fixed depth. In level H4, for example, it will look at all continuations up to four plies (a "ply" is a move for each side), and in level H8 up to a depth of eight plies.

2.8 Thinking in the opponent's time

You may have noticed that the computer will sometimes reply to your move instantaneously, even in the middle of a game played on one of the higher levels. This is because the computer was thinking in your time! In all but the novice levels, the computer will try to anticipate the move you are likely to make and to calculate its responses for this move while you are thinking. If it has guessed right there is no reason to go on calculating — so it plays the move it has found immediately.

2.9 LCD display of levels

Perhaps you have noticed that while setting a level the computer will give you information on the LCD display. It will tell you, for instance, how many moves are to be made in what amount of time (e.g. "LE 30, 01:00" is thirty moves are to be played in 60 minutes), or you will see a display like "LE Probl" (for Problem) or "LE Handi" (for Handicap).

3. More features

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

3.1 Changing sides

Would you like to play a game as Black for a change? Just set up the board with the black pieces at the bottom, closest to you. Remember that the black queen must be on a black square and the white queen on a white one. Now press **NEW GAME** and **PLAY**. The computer will make the first move for White, playing down from top of the board. Or press **NEW GAME** and **TAB/COLOR** to swap sides only: you must enter white's first more, playing down the board.

Pressing **PLAY** always causes the computer to play the next move. You can change sides with the computer at any time during the game simply by pressing this key instead of making a move. You can do this as often as you like — even press **PLAY** after every move, forcing the computer to play the entire game against itself!

3.2 Interrupting the thought process

The **PLAY** key has another important use: If the computer is spending too long on a move, you can press it to interrupt the thought process. This is very useful on the higher levels, especially analysis level B7, where the computer "thinks forever". Pressing **PLAY** while the computer is thinking always causes it to stop thinking and play the best move it has found so far.

Note: There is one exception to this rule. On level B8 (problem solving), pressing **PLAY** will not cause the computer to play a move. It will only sound a double beep to inform you that it had not found a forced mate when it was interrupted.

3.3 Taking back moves

Normally you are not allowed to take back moves in a serious game of chess. However, if you have committed an unnecessary blunder or when you are analysing a position, it is very handy if you are able to retract one or more moves.

Your Kasparov chess computer has a very elegant take back function. Try the following experiment: Play about a dozen moves in a normal game. Then, after the computer has made a move, retract this move on the board (more precisely: press down the piece that has just moved and then press it down on the square from which it came). The board lights will immediately turn red to indicate that you are in the process of retracting moves and the computer will offer to take back the second-last move. It will show you which piece was moved and, if you press it down, where it came from.

You can take back as many moves as you like, even to the very beginning of the game (you will get a high-low beep when there are no more moves to take back). When you retract a capture move the computer will remind you to replace the captured piece by flashing the proper square (the piece lights will tell you which piece must go on that square). If you wish to resume normal play at any stage during move retraction, (press **PLAY** if it's the computer's turn) ignoring the red lights. You can also press **NORMAL** to terminate take back.

There is another way to retract moves. First press **ANALYSIS**. The MODE light turns yellow, indicating that you are in the special "analysis mode" (which we will discuss in detail in the next two chapters). If you now press the key marked — the computer will help you to retract moves exactly as described above. Press **NORMAL** to leave analysis mode and return to normal play (the MODE light turns green).

3.4 Replaying the game

After you have taken back some moves you can play them forwards again. To do so press **ANALYSIS** and then the key marked +. The computer will show you which moves were made and you can play through all the moves you retracted. A double beep will tell you when you have reached the last move of the game. To return to normal play, press **NORMAL**.

Note that while you are replaying moves the board lights are yellow. The rule is yellow for forwards and red for backwards (and of course green for normal moves during a game). Try pressing + and — successively in analysis mode.

You can use analysis mode to replay an entire game. Set up the initial position and press **NEW GAME**, **ANALYSIS** and +. The computer will play through the last game with you, move by move. If you want to stop at any stage (e.g. to try a better continuation), just press **NORMAL**. The MODE light turns green and you can play on from the current board position against the computer.

3.5 Entering moves

Analysis mode has one more important use. It allows you to enter moves or force the computer to play a certain continuation. Say you want to try an opening the computer refuses to play of its accord. Press **NEW GAME** and **ANALYSIS**, and then start entering moves for both sides. You will notice that the computer does not try to find countermoves but just keeps track of the moves you play on the board, making sure that all of them are legal. The LCD will show the move number and the move made. Once you have reached the position you want, press **NORMAL** and play on as usual against the computer.

You can use this feature to enter entire games — e.g. the games from the World Championship Match — and store them in the computer's permanent library (see chapter 6 of this manual). It is also useful when you are playing a game against a friend and want the computer to act as referee and adviser. Just switch to analysis mode and play the game on the sensor board. The computer will monitor the game, making sure that nobody cheats. If either side needs help, you can always press **PLAY** and allow the computer to suggest the next move, then **ANALYSIS** to resume as before.

4. Information from the computer

Would you like to know what your electronic chess partner is doing while it is computing a move? Well, your Kasparov chess computer will gladly tell you, giving you a wealth of information on its "thought process". It will show you which move it is presently considering, what continuation it expects after that, its evaluation of the position and the depth of its search. This is not just of passing interest — it can help you to learn more about the game.

4.1 The main variation

Try pressing **INFO** while the computer is thinking. It will use the board lights to tell you which move it is considering (the FROM square is turned on for two seconds and the TO square for one second). After that it will show you what it expects you to play on your next move, what it intends to play after that, etc. This is known as the "main variation", the best sequence of moves the computer has found for both sides.

Note that while the computer is showing you the main variation it uses yellow board lights. This means that the moves indicated are not yet final — when it has actually decided to make a move you will hear a double beep and the board lights will turn green. Note, too, that the yellow lights on the right (control panel 1 — 6) advance with every move. In this way you are always able to tell how deep you are seeing the main variation. Depths over 6 are represented by a blinking 6 control panel light.

4.2 Position evaluation

After showing you all the moves it anticipates, the computer turns on one light (red) to the left of the board to indicate what it thinks of the position:

Light 8 — Winning for the player (i.e. the side playing **up** the board)
Light 7 — Substantial material advantage for the player
Light 6 — Positional advantage for the player
Light 5 — Slight general advantage for the player
Light 4 — Slight general advantage for the computer
Light 3 — Positional advantage for the computer
Light 2 — Substantial material advantage for the computer
Light 1 — Winning for the computer (i.e. the side playing **down** the board)

At the same time the control panel lamps indicate the current depth of the Full-Width Search. The Main Variation is usually at least as deep as this, although on occasion it might be a little less.

4.3 Information on the LCD

The LCD can provide you with more information than just time taken by both sides.

Press **FUNCTION** and **INFO** to see the time remaining for all levels except casual (Level A), infinite (B7) and Problem level (B8).

Press **FUNCTION** and **INFO** again to see the current depth of search and the position evaluation.

Press **FUNCTION** and **INFO** again to display the full-width depth and score.

Press **FUNCTION** and **INFO** again to display the first ply of the principal variation and score.

Press **FUNCTION** and **INFO** again to display the current time taken and the number of nodes or positions. (The display remains fixed when it is your turn to move)

Press **FUNCTION** and **INFO** again to return to normal time controls.

In the LCD display you will see the evaluation in 100ths of a pawn. Thus "Scor, + 0010" means that the computer thinks that White has an advantage equivalent to one tenth of a pawn.

4.4 Freezing the Info display

If the information supplied by the computer is coming too fast, you can always "freeze" it by pressing **+**. This will cause the computer to show you only the first move (the one it is considering). Press **+** again to see the next move. You can cycle through the information display manually at any speed you want. Pressing **—** naturally takes you back one step.

So pressing **INFO** and **+** displays only the first move of the main variation. In this state the computer will beep every time it changes its mind. And pressing **INFO** and **—** gives you an instant position evaluation. You can watch the evaluation change as the search progresses (the piece lights tell you how deep the computer is thinking).

4.5 Switching off Info

As soon as the computer has made a move the Info display is switched off. However, when the computer starts thinking again, it is restarted in the same state you left it, i.e. cycling, first move only, or evaluation. Even pressing **NEW GAME** does not change this. If you want to switch the Info display off you must press **NORMAL**.

4.6 An experiment with Info

Press **NEW GAME** and **ANALYSIS**, and then enter the following moves: 1.e2-e4 e7-e5 2.Ng1-f3 d7-d6 3.Bf1-c4 h7-h6 4.Nb1-c3 Bc8-g4. Now set the computer to level A8 and press **PLAY**, **INFO**, and **+**. You can watch how the computer keeps changing its mind until it finds a really good move (5.Nf3xe5!). You should also press **—** occasionally to see how the evaluation changes, or just **INFO** to cycle through the entire variation.

Experiment with the position to find out why the white queen may not be captured after 5.Nf3xe5. If you play 5...Bg4xd1 for Black the computer will immediately show you why it was advocating another move in its main variation.

4.7 Hints from the computer

Even after it has played a move the computer will remember the rest of the main variation and display it if you wish. Just press **INFO** when it is your turn to move. Since the first move the computer displays is the best it has found for your side, you may regard this move as a "hint" from the computer. So if at any time during a game you need advice, just press **INFO**.

Note: When the computer is playing out of its openings library and not actually computing moves, it will not be able to give you any hints. Press **PLAY** if you want the computer to make the next move for you.

4.8 Information while solving problems

On the problem solving level B8 the computer is looking only for a forced mate. Pressing **INFO** while it is thinking will not produce the normal display. Instead, the computer will use red board lights to indicate the current depth of search. If, for instance, the square A1 is displayed ("1" LED flashing, the other on steadily), this means that the computer is currently looking for a mate in one move. B2 is a mate in 10 (this is the maximum depth the computer will search)

If you press **INFO** after the computer has found (and announced) a forced mate it will show you one of the variations that lead to mate, followed by the number of moves to mate.

Note: The first move is always the key move. The others may in certain cases be a side variation.

5. Verifying and setting up positions

In this chapter you will learn two important things: how to check whether all pieces are correctly located on the board, and how to set up special positions.

5.1 Verifying board position

It may sometimes happen that you have upset the pieces on the board or for some other reason are not sure that the position is correct. In such cases you can always ask the computer to show you the proper location of each piece.

The process is very simple. Just press one of the piece keys. The computer will use the board lights (in red) to show you where that piece is located on the board. Press the same piece key again to find further pieces of the same kind. When there are none left the computer will turn off the board display. You can check other pieces by pressing the appropriate piece keys, in any order you like. To change colors press **TAB/COLOR**. Note that when the computer is showing you white pieces the piece lights are green, for black pieces they are red. As an additional help you will also see the piece type and its position in the LCD display.

To return to normal play press **NORMAL**

5.2 How to change the board position

This, too, is very easy. First press **SET UP** to put the computer into set up mode (the MODE light turns red). You can now remove or add pieces at will:

— TO remove a piece simply press it down on its current square and remove it from the board.

— To add a new piece first select the color (by pressing **TAB/COLOR** if necessary).
Now press the appropriate piece key and press the new piece on an empty square.

Make sure that the WHITE or BLACK lights correctly indicate the side to move next before you return to normal play by pressing **NORMAL**.

Try the following experiment: Press **NEW GAME** and **SET UP**. Now press the black queen down on its square and remove it from the board. Press **NORMAL**. The familiar new game signal (low-high-low-high) will tell you that the computer has accepted the position. It will play the game without its queen (this is known as a "queen-odds" game). Try adding a second black king to the position. When you press **NORMAL** you will hear an error beep (high-low) indicating that the computer does not accept the illegal position.

5.3 Setting up a special position

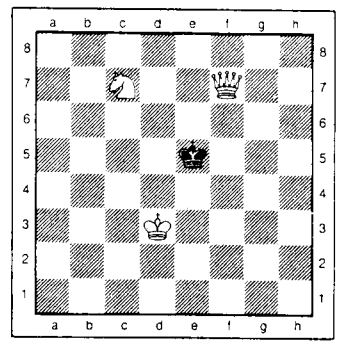
To set up a special position which contains only a few pieces,it is better to start from scratch. Press **NEW GAME**, **SET UP** and then **FUNCTION**, **NEW GAME**. This clears the board of all pieces. You can now enter the position as described above. The LCD will show the piece type that you have selected and also the position.
Example: To set up a "white to move" position with white King on E1, white Rook on A1, black King on D5, and black Rook on B2, first place the pieces on the board. Now press **NEW GAME**, **SET UP**, **FUNCTION**, **NEW GAME** to clear the board. Press **TAB/COLOR** (if necessary) to turn the WHITE light on. Press the King key and then press the white King down on its square. Press the Rook key and then the white Rook on its square. Now press **TAB/COLOR** (BLACK light on) and then the black Rook on its square. Press the King key and then the black King on its square. Press **TAB/COLOR** (WHITE light on = White to move) and **NORMAL** to return to normal Play Mode.

Note: In the above position the computer will permit castling. If you press **PLAY**, it will castle and capture the black Rook on the next move!

5.4 Chess problems

Your Kasparov chess computer has a special problem mode (level B8) in which it will solve chess problems up to mate in 10 moves.

Here's an example:



Problem by William A. Shinkman
White to play and mate in 3 moves

Enter this position as described in the last chapters (**NEW GAME**, **SET UP**, **FUNCTION**, **NEW GAME**, King key, press the white King on D3, Queen key, white Queen on F7, Knight key, white knight on C7, **TAB/COLOR**, King key, black king on E5, **TAB/COLOR**, **NORMAL**).

In this position White has an overwhelming material advantage and there is no doubt that he can easily mate the black King. But whereas in chess the ultimate aim is to checkmate the opponent, the goal in chess problems is to checkmate the opponent in a given number of moves!

The problem requires that White mate on his third move at the latest, against any defence by Black. The solution is not easy to find and, unless you are an experienced problem solver, you may not find it at all. For the computer it is trivial. Set level B8 and press **PLAY**. In just a few seconds it will show you the startling solution: 1.Nc7-a8!, the only move that leads to mate in three. You can try to defend the position for Black by entering moves as usual. The computer will continue playing the checkmating side until the game is over. Or you can just press **INFO** to obtain one of the checkmate variations (1...Ke5-d6 2.Kd3-d4 Kd6-c6 3.Qf7-d5 mate).

Chess problems such as the above are generally found in newspapers and magazines and usually adhere to certain fixed conventions. Unless otherwise stated, the problem will always require White to play and deliver mate in a certain number of moves against any defence Black may put up. The caption to the diagram may be as in our example, or it may simply say "Mate in three" or "Mate in four".

6. The programmable library

Your Kasparov chess computer has some memory features that are quite exceptional in the chess computer world. As we have seen (in section 1.9) it remembers the board position and the entire game even when you switch it off by pressing **STOP**. You can resume play exactly where you left off, weeks or even months later. But it is the built-in programmable library that make this computer truly unique.

6.1 Storing a game in the library

Let us assume you have just finished playing a fine game against the computer and think you might want to take another look at it later. Well, then store it in the computer's programmable library! First press **LIBRARY** to get into library mode. The MODE light and two board lights will flash (all in red) also the LCD will flash. The computer is offering you a memory "slot" for the game. If you have not yet stored any games, it will flash the square A5. Press **FUNCTION**, **+**. The board lights will turn steady to indicate that the computer has stored the game in slot A5. Press **NORMAL** to exit library mode. A1 to A4 contain four Kasparov games that you may like to play through.

You can store not only the games you play against the computer but also ones you input manually (see section 3.5). You can also store special openings, positions, or chess problems, including their solutions. Whatever you put into a memory slot is stored permanently and will not be lost even when you switch the computer off.

6.2 Kasparov Games

Some of you might remember when Garry Kasparov announced at the Nuremberg Toy Fair in February 1987 that some of his greatest games would become available for fun and learning in Kasparov chess computers.

Your Stratos contains his four most brilliant victories over ex-champion Anatoly Karpov in its programmable library. These games are located in memory slots a1 to a4 of the King bank. You can easily recall any of them (section 6.4) and play it through (Analysis function, section 3.4).

Your computer has another 379 empty memory slots, but should you want to re-use these slots for something else, section 6.6 tells you how to delete them — clears all the settings and the programmable library, then puts these four games back into their original slots.

Slot King-a1 — Match '85, Game 16: Karpov — Kasparov

Kasparov commented in his book on the '85 match — "I can confidently call this game my supreme creative achievement...none of my earlier creations can compare with this game as regards the grandiosity of the overall plan."

The starting 8...d5 was later found to be unsound, in fact by Karpov — this could neither add nor detract from the impressiveness of Kasparov's choice.

Slot King-a2 — Match '85, Game 24: Karpov — Kasparov

This game is the most epic game in modern (and perhaps all) World Championship play. Not only did it feature state-of-the-art opening play, consummate attack and defense engulfing the whole board, and edge-of-one's-chair tactics, but the whole title depended on the result! From 1.e4 Karpov played to win, and with 1...c5 Kasparov heartily accepted the challenge to "come out and fight." Most annotators (including Kasparov himself) felt that Kasparov might been a bit too patient with 20...Rbc8 and 22...Bg7, and that Karpov should have made his move with 23.f5!; but when he hesitated Kasparov built up with 23...Re7! and 24...Rce8!, broke with 25...f5! and 31...g5!!, and methodically put down Karpov's sacrifices on move 36. One must note that Karpov spurned the draw more than once in the game, as that would have not retained the title. On the other hand, Kasparov used this dilemma aggressively to overcome the first-move advantage.

Slot King-a3 — Match '86, Game 16: Kasparov — Karpov
One of the most impressive examples of Kasparov's skill in attacking — Karpov loses his way in a veritable whirlwind of variations. The move 31.kh2!! is the climax of confidence — it is hard to believe White isn't just falling off the board. Yet by the end of the game one feels that perhaps Kasparov actually had all this under control from the beginning.

Slot King-a4 — Match '86, Game 22: Kasparov — Karpov
This is the game that won the match and the crown. Having lost his match lead in 3 games in a row, Kasparov gets back on top in a classic example of the pursuit of the initiative. In one of his favorite openings, he converts the slightest space advantage into a seemingly unimportant over-concentrated light square situation around Karpov's King — but just as it looks as though Black is gaining counter-play, the moves 41.Nd7!! and 43.Rb4!! conjure up a mating attack from thin air.

6.3 The memory banks

When putting a game into the programmable library, you do not, of course, have to accept the memory slot the computer is offering you. Using **+**, **—** and **TAB/COLOR** (in library mode) you can choose any of the 64 squares of the chessboard to store your game. Just make sure the slot you are using is empty, i.e. that the red board lights are flashing.

The computer can store a total of 4,500 moves — which certainly adds up to a lot of games. To make it easier for you to classify and keep track of them, there are six memory "banks".

When you first pressed **LIBRARY** you may have noticed that the King light was turned on (in yellow) and the King symbol was shown in the LCD display. This meant that you were in bank 1 (or the "King's bank"). By pressing **FUNCTION** and one of the other piece keys you can switch to any of the other five banks. Each has 64 slots of its own, which adds up to six times 64 slots. However, the very last one — H8 in the pawn bank — is reserved for internal use by the computer, so that you can store games in a total of 383 slots.

You will appreciate this system when you begin storing large numbers of games and positions. You might put the games you play against the computer in the King's bank, famous games in the Queen's bank, chess problems in the Bishop's bank, etc. Or if you want to build up an extensive openings library (see section 6.5) you might store all king-pawn openings in the King's bank, queen-pawn openings in the Queen's bank, etc. It is advisable to keep a note of where you store anything, e.g. "Queen's bank, E1: First game of the 1985 World Championship Match between Kasparov and Karpov".

6.4 Retrieving games

So how do you recover a game that you have stored in the library? First press **LIBRARY** and then, if necessary, **FUNCTION** and a piece key to get into a specific memory bank. Now use **TAB/COLOR**, **+** and **—** to go to the slot you want.
The board lights should be steady to indicate that there is actually a game stored there. Press **FUNCTION** and **NEW GAME**. This loads the game into current memory and you can play through it by pressing **ANALYSIS**, **+**.

There is another way to find a game in the library. Say you remember the first few moves of a game you want to retrieve. Enter these moves in analysis mode and then press **LIBRARY**. The computer will look for the game that contains these moves and show you the bank where it is stored. Press **NORMAL** and the rest of the game is copied into current memory. You can play through it by pressing **ANALYSIS**, **+**.

If there is more than one game that matches your moves, then the computer will keep pointing to game slots each time you press **LIBRARY**. After the last game it will offer you a free slot (flashing board lights) for the moves you have entered. Press **LIBRARY** again to return to the first matching game.

The above, of course, also applies to positions and chess problems. If you set up and enter a position and then press **LIBRARY** the computer will check to see if the position is already in the library. If it is, the board lights will be steady, and you can press **NORMAL** (or **FUNCTION**, **NEW GAME**) to copy the moves into current memory. If the computer cannot find the position, then it will offer you a slot (flashing board lights) in which you may store it for future use (press **FUNCTION**, **+** to do so).

6.5 Storing active openings

As we have just seen, you press **FUNCTION**, **+** to store a normal game or sequence of moves. Pressing **FUNCTION**, **TAB/COLOR** instead also stores the game, but with an important difference: The game becomes part of the openings library of the computer! This means that the computer will play the moves of its own accord during normal games.

This function is principally used to extend the computer's built-in openings library. Try the following experiment: Enter the moves 1.e2-e3 e7-e5 2.Bf1-c4 Nb8-c6 3.Qd1-h5 Ng8-f6 4.Qh5xf7 mate and then press **LIBRARY**, **FUNCTION**, **TAB/COLOR**. If you now start a new game with the move 1.e2-e3 the computer will play the above sequence of moves, allowing you to mate it in four moves. This is a mean trick to play, but it serves to illustrate how you can store openings that become active in normal play.

6.6 Deleting games

You will probably want to delete the above "opening" as quickly as possible. Or you have filled up the computer's memory completely — that should take you quite a while! — you are unable to store any more games (you will get an error signal if you try). So you must delete some that are no longer of interest. Or perhaps you will want to "tidy up" occasionally and get rid of some of the games you have stored. To do so, go into library mode, choose the memory slot of the game you wish to delete, and then press **FUNCTION**, **—**. The board lights will start to flash, indicating that the slot is now empty.

6.7 Things to remember

Here's a short summary of the commands in Library Mode:

LIBRARY	— enter library mode (MODE light flashes red)
FUNCTION, piece key	— choose bank
TAB/COLOR, **+**, **—**	— choose memory slot

If the board lights are flashing then the slot is empty, if they are steady then there is a game in the slot.

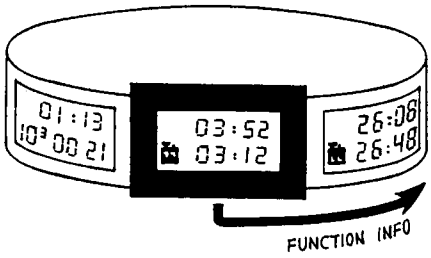
FUNCTION, **+**	— copy the current game or position into that slot.
FUNCTION, **TAB/COLOR**	— copy the current game into that slot and make it part of the computer's openings library
FUNCTION, **NEW GAME**	— make the game stored in that slot the current game
FUNCTION, **—**	— delete game stored in that slot
NORMAL	— return to normal play

If you have made some moves in a game or entered a special position:

LIBRARY	— search for a game that matches the moves or the position
NORMAL	— add the rest of the moves to the current game

7. The LCD display

Your Kasparov chess computer has a built-in LCD display that offers you a wealth of information during the game. Normally you see a small section of the available information (a "window"), but by pressing the keys **FUNCTION**, **INFO** you can always get the rest of it into the display.

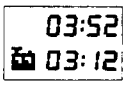


FUNCTION INFO causes the computer to cycle through the display.

In the following sections you will find a summary of the information available during all phases of the game.

7.1 Display during a normal game

When you are playing a game against the computer you normally see the time each side has used up so far, e.g.



The above display means that Black has used 3 minutes 52 seconds for all his moves so far, and that White has used 3 minutes 12 seconds. The little picture of a chess clock with the left button raised means that White's clock is running. As soon as 60 minutes are exceeded the display switches to hours and minutes, indicated by a flashing colon. Maximum time in each internal clock is 18:12:15. The clock will be reset to 0:00:00 and count over again when the maximum time is reached.

Pressing **FUNCTION**, **INFO** will display the following "windows":

1. Time left for each side. Again, if the colon is flashing the display is in hours and minutes, if it is steady it is in minutes and seconds. In certain levels (e.g. Analysis, Problem solving) this information is not applicable and the display will show "00:00".

2. The main variation: The computer shows you the continuation it expects and, in the bottom line, the depth of the move currently being displayed. At the end of the variation it displays its current evaluation of the position in 100ths of a pawn (e.g. "Scor +0200" means that it thinks that White is the equivalent of two pawns ahead).

3. Depth of search + evaluation: The top line shows you to what depth the computer has examined all possible continuations ("Fd 3" = Full-width depth search to three ply) and the bottom line the evaluation in 100ths of a pawn. Please note that the program examines certain important variations far deeper than the "Full-width depth" indicated.

4. Anticipated next move + evaluation.

5. Time spent on current move + number of positions examined (in thousands). Thus the display "01:13, 10^3 00 21" means that the computer has been thinking for 1 minute 13 seconds and has evaluated 21,000 positions in that time.

Pressing **FUNCTION**, **INFO** once more returns you to the standard window (time for both sides). You can also return to this display at any stage by pressing **NORMAL**. Once chosen any of the above windows will remain active until you change it with **FUNCTION**, **INFO** or **NORMAL**.

7.2 Display in Analysis mode

Pressing **ANALYSIS** – or + retracts or replays moves, as we saw in sections 3.3 and 3.4. If you keep pressing – or + without actually changing the board position the LCD display will show you all the moves of the entire game. Press **NORMAL** to return to the current move.

7.3 Position verification and correction

When you press a piece key to verify the board position (see section 5.1) the piece type and position is also shown in the LCD display. During the game illegal moves are also corrected with the help of the display. For instance "CLr G4" means that the piece on G4 is incorrectly located (press it down and remove it from that square), "Put G1" means that it should be placed on this square (press down lightly).

7.4 Levels of skill

When setting levels (see Chapter 2) you will find additional information on the time controls in the LCD display. For example "LE 1, 02:00" means that each player is expected to make one move in two minutes; "LE 30, 30:00" = 30 moves in 30 minutes; "LE 1, 99:99" = one move in unlimited time (Analysis!); "LE 99, 05:00" = all moves in 5 minutes ("99" = "all moves" or "unlimited time"). Here, too, a flashing colon means that the time is indicated in hours and minutes, a steady colon in minutes and seconds.

In some levels you can obtain further information on the secondary time controls by pressing **FUNCTION**, **INFO**. Whenever a second display window is available you will see an arrow in the bottom row. In the Handicap levels "Handi" is displayed, in the Problem level "Probl", and in the experimental levels with fixed depth (H1 — H8) you will see "Fı" and the depth set.

7.5 Setting up a position

When you press **SET UP** you will see "SEt" to indicate that you are in set up mode. Whenever you enter a piece (as described in sections 5.2 and 5.3) the piece type and its position on the board are indicated in the display.

7.6 User-Programmable library

All library functions (see Chapter 6) are additionally supported by the LCD display. You can always tell which "bank" and "slot" is being addressed. A flashing display indicates that the slot is empty, a steady display that there is already a game stored there.

8. Some technical details

8.1 Changing the batteries

Weak batteries should be replaced promptly as they might leak and cause damage to the computer. One set of alkaline batteries will give you about 100 hours of play. When batteries are low, a "B" will appear on the LCD display periodically. This happens several hours before the batteries actually expire, so you have ample time to remedy the situation.

If you have stored games in the user-programmable library (see chapter 6), then you should take some precautions when changing batteries. First switch the computer off by pressing **STOP**. Turn your computer over so that the letters "ACL" face you. Have a new set of batteries ready and remove the row of the two batteries furthest from you and replace them at once with a fresh pair. Then the middle row and lastly the nearest row. This should ensure that the batteries in the row nearest to you, which power the library memory, are not removed for longer than 20 seconds so that the library contents are not lost.

8.2 The mains adapter

If you use the optional mains adapter provided by your dealer then you should take the following precaution to ensure that the contents of the user-programmable library are not lost. You should always install batteries in the computer even though you are using an adapter. If you operate your computer without batteries a "B" will appear on the LCD periodically. Whenever attaching the adapter make sure that the computer is switched off. Connect the adapter first to the mains and then to the adapter socket of the computer.

8.3 The ACL key

If the computer locks up because of static discharge or some other reason, press **STOP** and then use a paper clip or some other sharp object to press the ACL key on the back of the cabinet for one second then press **PLAY** and **GO** simultaneously. This resets the computer. It also clears the memory, so that the contents of the user-programmable library are lost.

8.4 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.

8.5 Technical specifications

Microprocessor:	65CO2
Processor speed:	6 MHz
Program memory:	64 Kbytes
RAM memory:	16 Kbytes
LED lamps:	4 red, 23 triple-color
Keys:	27
LCD display:	7 segments x 8 plus 7 x 7 Dot-Matrix
Power consumption:	0.75 W
Battery requirement:	6 "C" cells (type AM2/R14)
Battery life:	100 hours (alkaline batteries)
AC adapter (optional):	9V DC at 200 mA minimum with 2.1 mm ID/ 5.5 mm OD plug
Dimensions:	390 x 390 x 33 mm
Weight:	2.6 Kg (without batteries)
Playing strength:	Less than 2% of all ohess players can be expected to beat the Stratos. With practice you could be one of them!

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

8.6 Troubleshooting guide

	SYMPTOMS	POSSIBLE CAUSES	WHAT YOU SHOULD DO
1.	The computer does not work with batteries	Batteries not inserted properly	See Fig. 2
		Power reset problem	Press ACL key (see section 8.3)
2.	A "B" appears on the LCD display	Batteries weak or bad	Replace batteries (see section 8.1)
3.	Computer does not work on adapter	Wrong adapter type, voltage rating, etc.	Check with dealer
		Defective adapter	If the computer works on batteries but not with the adapter then the latter is probably defective. Send it to the service centre.
4.	Lamps light up together, the computer behaves erratically or "freezes" in the middle of a game	Power on reset problem, static discharge or mains disturbance	Unplug adapter, take out batteries, press ACL key, check mains connection. (both adapter plugs fit snugly), reinstall batteries and switch on again. (See section 8.3)
5.	LCD clock, lamp, key or chessboard square does not work	Defective component or contact	Consult your service centre
6.	Computer cheats or makes illegal moves	It has made a special move like — En passant — Castling (king or queen side) — Pawn promotion/underpromotion	Make sure you are familiar with the chess rules (read the "Rules of Chess" manual). Use the piece keys to check the current board position (see section 5.1), then take back a move and check the previous board position. This will tell you exactly what the computer has done.
		Your board position is not correct, some pieces have been displaced	Verify the board position (see section 5.1)
7.	The computer refuses to accept a move	You are trying to make an illegal move	Is it your turn? (look at the color lamps) Is your King in check? (CHECK lamp) Is the game over (checkmate or draw)? Will your move put your King into check? Are you trying to castle incorrectly? (check the rules) Did you move the Rook first when castling?
8.	A pawn moves like a Queen (or Rook, Bishop or Knight)	The pawn has been promoted	Use the piece keys to confirm the board position. Take back moves until before the promotion and allow the computer to make the move again
9.	The King moves like a Queen	King and Queen were swapped around in the initial position	Use piece keys to confirm the identity of the pieces
10.	Computer will not reply to your moves	You are in Analysis Mode (see chapter 3)	Press **NORMAL** and then **PLAY**
		The computer is still thinking (color light flashing).	Press **PLAY** to interrupt (see section 3.2)
		Level B7 (analysis) or B8 (problem solving) is set (see section 2.4)	Verify the level
11.	The computer is silent	The sound is off (see section 1.8)	Press **SOUND** to turn it on again
12.	The computer won't store a game	The memory slot is occupied (see section 6.3)	Clear the slot (see section 6.6) or choose another slot
		The library is full	Delete unimportant games (see section 6.6)

Notes – Notizen

Notes – Notizen

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

'HOW TO GET THE MOST FROM YOUR CHESS COMPUTER'
by Julio Kaplan
R.H.M. Press

'CHESS OPENINGS (BCO)'
by Garry Kasparov & Raymond D. Keene
Batsford Books

'LEARN FROM THE GRAND MASTERS'
by Raymond D. Keene
Batsford Books

'OPENING REPERTOIRE FOR WHITE'
by Raymond D. Keene
Batsford Books

B.T. Batsford Ltd.
4 Fitzhardinge Street
London W1H OAH
United Kingdom

RHM in
U.S., Canada, Mexico
Puerto Rico
R.H.M. Press
417 Northern Blvd.
Great Neck
N.Y. 11021
United States of America

RHM in
Europe and
elsewhere
R.H.M. Europe
110 Strand
London WC2R OAA
United Kingdom

Authorized Service Centers

AUSTRIA
Kasparov Chess Computer Center
Theuretzbacher & Co.
Sonnleithnergasse 20
A-1100 Wien

AUSTRALIA
Wheelite Pty. Ltd.
16 Hertford Crescent
Wheelers Hill 3150
Melbourne

DENMARK
Finn Andersen en Gros
Hoenaesvej 42
DK-2610 Roedovre

FINLAND
Kasparov Chess Computer Center
Mantrim Oy
P.O. Box 97
SF-02211-Espoo

FRANCE
Kasparov Chess Computer Center
Transecom S.A.
Avenue des Morillons
Parc. d'Activités des Doucettes
F-95140 Garges-Les-Gonesse

GERMANY
Kasparov Chess Computer Center
Bernd Jöllenbeck GmbH
D-2730 Weertzen

HOLLAND, BELGIUM, LUXEMBOURG
Kasparov Chess Computer Center
Electronics Nederland B.V.
Tijnmuiden 15/17/19
NL-1046 AK Amsterdam
Holland

HONG KONG
Kasparov Chess Computer Center
Bondwell Trading Limited
2/F, Chung Nam Centre
414 Kwun Tong Road
Kwun Tong, Kowloon

ITALY
Kasparov Chess Computer Center
Centro Informatico Scacchi
Via Germanico 107
I-00195 Roma

JAPAN
Kasparov Chess Computer Center
Sakura Trading Co., Ltd.
2nd Floor, Toko Bldg.
3-3, Yanagibashi 1-chome
Taito-Ku
Tokyo

NEW ZEALAND
Kasparov Chess Computer Center
Commodore Computer (NZ) Limited
250 Forrest Hill Road
P.O. Box 33 - 847
Takapuna
Auckland

SINGAPORE
Kasparov Chess Computer Center
INC Enterprises (Pte) Ltd.
Raffles City
P.O. Box 684
Singapore 9117

SOUTH AFRICA
Kasparov Chess Computer Center
Television & Electrical
Distributor (Pty) Ltd.
Tedelex House
29/35 Heronmere Road
Reuven
2091 Johannesburg

SPAIN
Kasparov Chess Computer Center
Umossa
Compas de la Victoria No. 3
E-29012 Malaga

SWEDEN
Mästarting AB
Box 6002
S-172 06 Sundbyberg

SWITZERLAND
Küpfer Electronic AG
Soodstrasse 53
CH-8134 Adliswil

U.S.A.
Kasparov Chess Computer Center
SciSys Computer Inc.
Suite 108
2301, West 205th Street
Torrance, CA 90501

Service Centers are correct at the time of going to press but may change from time to time.