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INTRODUCTION

Congratulations! You are now the proud owner of one of the most unique and exciting chess computers ever! This talking computer, with its vast array of special features and interesting game options, is a real breakthrough in the field of computer chess. The human-like interaction is guaranteed to amaze you—this machine is unlike any other! Over three hours of human voice will guide you, train you, and keep you company while you learn more than you ever imagined you could about the exciting game of chess. From the friendly advice on what to do in a certain position, to the warnings when you're about to make a mistake, to the in-depth tutorials which take you by the hand and teach you as never before—with this computer by your side, chess will never be the same again!

See the "**KEYS AND FEATURES**" diagram for an itemized overview of the computer's main points!

Your computer knows and follows all the rules of chess. For those who are new to the game, we have enclosed an overview of the rules. We hope this will help you understand the game better and get a feel for the strategies involved. For more detailed information, we suggest a visit to your local library, where you are sure to find a wealth of interesting chess books!

1. GETTING STARTED: THE BASICS

1.1 Power on

Your chess computer runs on six "C" (AM2/R14) batteries. Insert the batteries as indicated in the *Quick Start* at the front of the manual, making sure to observe the correct polarity. Use fresh alkaline batteries for longer battery life!

If you would rather not power your computer with batteries, you may purchase an optional AC-DC adapter. Please use only the adapter specified in Section 8.3, as using any other adapter could damage the computer and will invalidate your warranty. Please also read the precautionary informa-

Learn about opening lines, opening rules, and so much more...

Be sure to check out Section 4 for all the Tutorial Lessons!



tion regarding adapter use in Section 8.2. When using an adapter, first plug it into a wall outlet, and then into your computer. *Important: To ensure that the computer's memory contents are not lost, keep good batteries installed in the unit even when you are using an AC-DC adapter.*

To turn the computer on, press **GO/STOP**. After a brief start-up procedure, a welcome message will greet you, signalling that the computer is ready to play! If the unit does not respond, use a paper clip or another sharp object to press down into the hole marked **ACL** in the base of the unit for at least one second. This will reset the computer.

To conserve energy and extend battery life, an Auto Power Down feature will cause the computer to turn itself off automatically if left idle for about 15 minutes.

1.2 Ready to Play? Here's How!

Follow these steps to start a game:

- Press **GO/STOP** to turn the computer on, if you haven't already done so.
- Press **YES/✓** and **NO/X** simultaneously to reset the computer for a new game of chess. You'll hear **New Game** as a confirmation! Set up the pieces in their starting positions, with the White pieces nearest to you, as shown in the *Quick Start*.
- To make a move, lightly press down on the piece you want to move until you hear the voice identify that square. The sensory board registers your move, and the light in that square turns on. The display also shows the color, the piece, and the square that was pressed.
- Take the piece and press it down on the square to which you are moving. That square will be announced, and the computer will start thinking about its move.

At the beginning of a game, the computer's reply is often instantaneous on many levels, because it is playing moves which are stored in its openings library (for details, see Section 2.8).

1.3 The Computer Makes Its Move

When the computer moves, it says **Move ready** and shows its move in the display. It also turns on the light in the square it is moving **from**. Press the indicated piece down gently on the **from** square until the square is announced and the light in the **to** square comes on. Move that piece to the **to** square and press the piece down to complete the computer's move.

Depending on the sound and coaching options currently in effect, you may also hear other game information during these early moves. The computer might identify the opening line and refer you to a tutorial for that specific opening! Or, if it thinks you need help with rules or strategies, it may offer advice, referencing related tutorials. You simply couldn't ask for a more helpful, patient, and knowledgeable chess tutor!

1.4 Change Your Mind? Take Back!

To take a move back for either side, simply retract the move on the board by moving the piece back to the square from which it came, pressing down on the squares as you go. The take-back is announced, the display shows you the move, and the board lights alternately turn on the **to** and **from** squares to guide you through the take-back. After you take back one move, the computer will indicate the next move that can be taken back. You can take back up to 64

individual moves. To resume play at any point, simply make another move on the board.

Alternatively, you may press **BACK** when it is your turn to move, and the computer will guide you through the take-back procedure as described above.

When you take back captures, castling maneuvers, or pawn promotions, the computer will remind you of pieces to be put back on the board! It uses the display, board lights, and voice to show the piece and position. Press the piece down on the indicated square to complete the take-back.

1.5 Game Over? Start a New Game

Whenever you finish a game (or if you decide to abort your current game), you may reset the computer to start a new game by pressing **YES/✓** and **NO/X** simultaneously. A **New game** message signifies that the computer is ready for another game, using the currently set level.

Caution: Resetting the computer for a new game clears your current game from the computer's memory!

1.6 Too Easy/Hard? Change Levels!

When the computer is first turned on, it is set to Playing Level 63, with an average response time of five seconds a move. However, you can choose from 100 different levels of play! For detailed descriptions of all levels and instructions on how to change levels, see Section 3.

1.7 Voice On/Off? It's Your Choice!

Your computer's informative and entertaining voice is on *Sound Level 2* by default, and the Volume Control Slider controls the volume. However, if you would rather have more voice output, or less, or if you want to turn the sound off completely, you do have those options! See Section 5.1 for a complete rundown of all your choices.

Many of the voice examples used in this manual are based on the computer's default settings. Depending on the sound and coaching options you choose in Section 5, you can have as much or as little voice interaction as you wish!

*By the way, if you don't hear what the computer says at any point, simply press **SAY AGAIN** on your turn to have the last phrase repeated. Pressing this key repeatedly may also give you other previously spoken information. Note that you can use this feature regardless of the current Sound Level—pressing **SAY AGAIN** will always repeat the phrase(s) that would have been spoken on Sound Level 4.*

2. ADDITIONAL FEATURES

2.1 Whose Turn? Check the Display!

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 Captures and Special Moves

Captures: To capture, press down lightly on the piece you want to move, take the captured piece off the board, and press your piece on the square of the captured piece. Captures are displayed as in ♖5×H5.

En Passant: In an en passant capture, the computer reminds you to remove the captured pawn and turns on the light in that square. Press down on the captured pawn before removing it from the board.

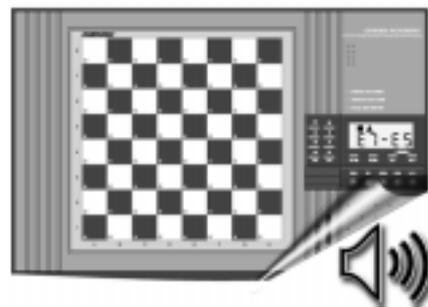
Castling: The computer automatically recognizes castling after the King is moved. After you have pressed the King down on its **from** and **to** squares, the computer reminds you to move the Rook. Press down on the Rook's indicated **from** and **to** squares to finish the castling move. A Kingside castle is displayed as ♖-♖, and a Queenside castle as ♖-♖-♖.

Pawn Promotion:

- **When you promote a pawn**, first press your pawn

SPECIAL NOTES REGARDING SOUND!

- Control the volume with the Volume Control Slider.
- The Sound Levels determine the amount of voice interaction, beeps or silence (see Section 5.1).
- The Coach Levels determine the amount of voice coaching, regardless of the Sound Level setting (see Section 5.1).
- If you don't move the computer's piece on the board soon after it has announced its move, it intermittently sounds a series of reminder beeps! You'll appreciate this feature on levels where the computer thinks for a long time—you can walk away from the game and the repeated beeps will alert you when the computer has moved! These beeps also occur at other times—whenever you hear them, check the board and display to see what the computer is expecting you to do!
- When you take a tutorial, the current Sound and Coach Levels may be changed, as required by that tutorial. These Sound and Coach Levels will remain in effect upon exiting Tutorial Mode.
- Press **SAY AGAIN** to have the last phrase repeated. Pressing this key repeatedly may also give you other previously spoken game information. No matter which Sound Level is in effect, pressing **SAY AGAIN** will always repeat the phrase(s) that you would have heard on Sound Level 4.



down on the **from** square, as usual. As soon as you press the **to** square, the computer will prompt you to select a promotion piece. It also displays the promotion square and turns on that board light. Press a Piece Symbol Key (♙, ♘, ♗, ♕, or ♔) to identify your new piece, and the pawn promotion or underpromotion is complete. The computer recognizes your new piece immediately, and begins thinking about its next move. Remember to change your piece on the board!

• **When the computer promotes a pawn**, it indicates its move as usual, but the display shows both the pawn and its intended promotion piece. Simply make its move by pressing the **from** and **to** squares as usual. Don't forget to replace the computer's pawn with its new piece.

2.3 Illegal Moves

Your computer will never accept an illegal move. If you attempt such a move, the computer will announce your mistake! If you press the wrong **to** square, you will hear **Error**, and the display and a board light will indicate the square the piece came **from**. To clear the illegal move, press the piece back down on its **from** square. If you press down on the wrong color piece, you will again hear **Error**, and the computer will simply disregard the square you pressed.

If you don't execute a computer move correctly (if you try to move its piece to the wrong square), you also get an error message and a board light identifies the square the piece should move **to**. Check the display again for the correct move. If the computer wants to move its pawn from c7 to c5, for example, and you press down on c7 and then c6, the display shows ♖c7:c6 briefly, pointing out your error. The display then returns to showing the move again (♖c7-c5), and the computer expects you to press down on Square c5 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. Then make another move of your choice. If you change your mind after entering your whole move, take the

move back as described in Section 1.4.

2.4 Check, Mate, and Draw

When a King is in check, the computer will say **Check!** After the move is made, ♔♚ flashes in the display for a few seconds, along with the checking move. The display then reverts back to showing the clock. Note that when the computer is in check, the display will revert back to normal immediately after the ♔♚ display.

If the computer discovers a forced mate against its opponent, it first displays its 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., ♜ ♖ ♘ for a mate in two moves). The display then goes back to showing the clock.

When a game ends in checkmate, **Checkmate!** is announced, and the display flashes ♚♚♚ (along with the mating move) for a brief time after the move has been made. The display then goes back to showing the clock.

The computer recognizes draws by stalemate, three-fold repetition, and the 50-move rule. The voice will announce the draw, and the display flashes ♖♚♘ (along with the drawing move) for a brief time after the move has been made. The display then goes back to showing the clock.

2.5 Need a Hint? Just Ask!

Whenever you need help, the computer is glad to oblige! Press **HINT/INFO** on your turn, and the computer will display a suggested move. Displaying this hint usually takes one to five seconds, but can sometimes take longer. To accept the hint, make that move on the board. To make a different move, disregard the hint and make a move of your own, or press **NO/X** to cancel the hint display. Note: The hint move is based on an optimum level rather than the current level.

2.6 Interrupting the Search

To interrupt the computer while it is thinking, simply press **YES/✓**. This forces the computer to play the best move it has found so far. This feature can be useful on the higher levels, where the computer can take a long time to move, and on the Infinite and Tactical Levels, where the computer keeps thinking indefinitely unless you stop it.

On the Problem Solving Levels, pressing YES/✓ does not cause the computer to make a move. Instead, the computer displays ---- to indicate that it was interrupted before it found a mate. To continue play, switch to another level.

2.7 Changing Sides

To change sides with the computer, press **YES/✓** when it is your turn—the computer will then make the next move for your side. Change sides as often as you wish!

If you want the computer to play the first move for White at the start of a game, first press **YES/✓** and **NO/X** together to reset for a new game. Then, press **YES/✓** again—and the computer will start the game with a White move!

To have the computer play chess against itself, press **YES/✓** after each move—watch as it plays for both sides of the board, one move after another. Study its strategies—you might improve your own game!

2.8 Book Openings

At the beginning of a game, the computer's reply is often instantaneous on many levels, because it is playing moves from its *openings library*. The computer's library includes most major openings and many positions from grandmaster play. If the current board position is in its library, the computer plays a response to that position from memory, instead of thinking about the move. The computer uses its openings library on all levels except the Problem Solving Levels and certain handicapped levels.

This chess computer also offers various other unique ways for you to learn more about book openings. Section 5.2 describes how to set Playing Mode Options to study individual openings. And in Section 4, you'll be delighted to find in-depth voice tutorials on many of the most popular chess openings—it's a great way to strengthen your game!

Study famous chess games in the greatest detail...

The Tutorial Lessons offer you this unique opportunity—take a look at Section 4!



2.9 Thinking on the Opponent's Time

As you play, you may notice that the computer sometimes replies to your moves immediately, 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 own strategies. It tries to anticipate the move you are likely to make, and calculates its responses for that particular move while you are still thinking. If the computer has guessed correctly, there is no reason for it to keep on calculating—it immediately plays the move it has already found!

Note that the computer does not think on the opponent's time on the Fun Levels.

2.10 Game Memory

You may interrupt a game at any time and turn the unit off by pressing **GO/STOP**. Play is then suspended, and the computer stores your current position and game (up to 64 individual moves) for up to one year. When you switch back on again, you can continue right where you left off!

Tip: If you power your unit with an AC-DC adapter, you should still keep good batteries installed, to ensure that memory contents are not lost if the unit is unplugged!

2.11 Auto Power Down

The Auto Power Down option is an energy-saving feature, causing the computer to automatically turn itself off after about 15 minutes if no keypresses or moves are made during that time. To continue where you left off, press **GO/STOP** to turn the computer back on. *Note that the computer will not turn itself off while it is thinking about a move.*

3. PLAYING LEVELS

See "PLAYING LEVELS AT A GLANCE!" for a listing of all 100 playing levels.

Your chess computer has 100 unique playing levels to choose from. These levels are divided into two basic groups:

- **60 HANDICAPPED LEVELS:** These special Fun Levels offer beginners and average players a chance to learn about chess and build their skills. On many of the Fun Levels, you'll even see the computer make mistakes on purpose—so that you can learn from it!
- **40 COMPETITION LEVELS:** These playing levels offer intermediate and more advanced players a great variety! They include levels for tournament play, casual and tactical play, problem solving, and speed chess. When you set the level, keep in mind that when the computer has more time to think about its moves, it gets stronger and plays better—just like a human chess player!

Setting a Playing Level

See "WANT TO SET A PLAYING LEVEL? HERE'S HOW!" for a detailed example of setting a level.

For a complete overview of all 100 playing levels, please refer to the Level Chart. The levels are also described individually in this section.

Press **LEVEL** to enter Level Mode, and the computer displays the currently selected level. Use the **FWD** and **BACK** keys to increase or decrease the levels by one. As a shortcut, press **LEVEL** repeatedly to skip over ten levels at a time. While changing levels, you will see the display toggle between the level number and the descriptive level display. For example, the display for Fun Level 2 will alternate between **L 2** and **Fun: 2**. When your desired level is displayed, simply press **YES/✓** to enter your level selection into the computer and exit Level Mode.

If you have pressed **LEVEL** to verify the level but do not wish to actually change levels, press **NO/X** to exit Level Mode. This returns you to normal play without changing the level or clock settings, even while the computer is thinking.

Please also note the following, in regard to setting levels:

- The level can be changed at any time during the game.
- Changing the level always resets the chess clocks.
- If you change the level while the computer is thinking, the clock is reset and the current search is aborted. If **LEVEL** is pressed while the computer is thinking but the level is not changed (that is, if **NO/X** is pressed instead of **YES/✓**), the computer will also abort its search.

HANDICAPPED LEVELS

3.1 Fun Levels

LEVEL	DESCRIPTION	ALTERNATING DISPLAY
1	Fun Level 1	L 1 Fun: 1
2	Fun Level 2	L 2 Fun: 2
3	Fun Level 3	L 3 Fun: 3
...ALL THE WAY UP TO...		
58	Fun Level 58	L 58 Fun: 58
59	Fun Level 59	L 59 Fun: 59
60	Fun Level 60	L 60 Fun: 60

These unique "Fun Levels" are strongly handicapped and meant primarily for beginners and younger players. On these levels, your computer is much more "human" than most other 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 some of these levels, this computer actually does! The Fun Levels cover a rating range from 0 to 1900 ELO points.

By the way, if you don't do so well on these levels, the computer will automatically suggest tutorials for you!

Various handicaps are built into some of these levels, demonstrating common mistakes made by beginners. You may see the computer deliberately ignore the material worth of the pieces, and ignore key concepts such as pawn structure, centrality, mobility, and King safety. It may overlook or walk into mates, develop its Queen too early, and make impulsive captures and checks. Chess books often advise of basic rules, 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!

On some of the weaker Fun Levels, the computer will not only leave pieces unguarded, but might also actually **try** to lose material. Watching the computer throw away its Queen would not even be uncommon! As the levels get higher, they give away material less consistently. They progressively start to consider the material worth of pieces more and more, and eventually only occasionally give pieces away. On the higher Fun Levels, the computer doesn't actually give away material—instead, it plays more like a beginner who has learned the basics of the game. You might still see it make mistakes such as opening itself up to threats of check or checkmate. Why not try out all the Fun Levels—and try to learn from the computer's mistakes!

COMPETITION LEVELS

3.2 Casual Play Levels

LEVEL	AVERAGE TIME PER MOVE	ALTERNATING DISPLAY
61	1 second per move	L 61 L 0:01
62	2 seconds per move	L 62 L 0:02

WANT TO SET A PLAYING LEVEL? HERE'S HOW!



1. Press **LEVEL**. The current playing level is displayed.
Let's say you want to select the first Speed Chess Level.



2. Press **FWD** or **BACK** to increase or decrease the levels by one. Watch for Speed Chess Level 81 (L 81), displayed as 0:05:99.



SHORTCUT: To skip over ten levels at a time, press **LEVEL** repeatedly!



3. When **L 81** and **0:05:99** are displayed, you are on the correct Speed Chess Level.



4. Press **YES/✓** to enter this level into the computer. That's it!

Select any other level the same way! The Level Chart shows you the different displays.

For more info on choosing levels, see Section 3.

63	5 seconds per move	L 63 L 0:05
64	10 seconds per move	L 64 L 0:10
65	15 seconds per move	L 65 L 0:15
66	30 seconds per move	L 66 L 0:30
67	45 seconds per move	L 67 L 0:45
68	1 minute per move	L 68 L 1:00
69	2 minutes per move	L 69 L 2:00
70	3 minutes per move	L 70 L 3:00

The first ten Competition Levels are meant for casual chess play. Whenever you choose one of these levels, you are selecting an average response time for the computer. On these levels, the computer uses a Selective Search, allowing it to quickly come up with move combinations which would otherwise take much longer to find.

Note that the response 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.

3.3 Tournament Levels

LEVEL	NUMBER OF MOVES/TOTAL TIME	ALTERNATING DISPLAY
71	40 moves in 1 hour 20 min.	L 71 1:20:40
72	40 moves in 1 hour 30 min.	L 72 1:30:40
73	35 moves in 1 hour 45 min.	L 73 1:45:35
74	40 moves in 1 hour 45 min.	L 74 1:45:40
75	35 moves in 1 hour 30 min.	L 75 1:30:35
76	40 moves in 2 hours	L 76 2:00:40
77	45 moves in 2 hours 30 min.	L 77 2:30:45
78	50 moves in 2 hours	L 78 2:00:50
79	40 moves in 2 hours 30 min.	L 79 2:30:40
80	40 moves in 3 hours	L 80 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 announces this (e.g., **White loses on time**) and displays **L 0:00** along with the elapsed time to show that the game is over.

If you select a Tournament Level, you may want to set the clocks to display countdown time instead of the elapsed time (see Section 5.1). When the game time runs out, the countdown clock automatically reverts back to the normal display.

3.4 Speed Chess Levels

LEVEL	TOTAL TIME PER GAME	ALTERNATING DISPLAY
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NEED HELP CHOOSING A LEVEL? SOME TIPS FOR YOU!

- **Are you a beginning player?** Start out with the Fun Levels. These levels restrict the search depth and contain built-in handicaps, resulting in weaker play. This gives you a chance to learn about the game and perhaps even beat the computer! These 60 levels get progressively more difficult as they go up—as you conquer each level, go on to the next!
- **Are you an intermediate or more advanced chess player?** Try the Casual Play Levels, which range from easy all the way up to a more difficult three-minute response time on Level 70. For real excitement, challenge the computer to some fast-paced games of Speed Chess! And, if you are up to the most demanding levels, be sure to have a go at the Tournament Levels.
- **Learn by watching the computer!** Study different styles of play based on the type of search. Use Playing Mode to switch between the Selective Search and Brute Force Search algorithms—look for differences in how the computer plays!
- **Want to experiment?** Use the Problem Solving Levels to solve problems up to mate in eight—try searching from a position in one of your own games, or set up an actual mate problem. Select the Infinite Level or the Tactical Level and have the computer analyze complicated positions for hours or even days! Turn on the Rotating Display Options and watch its thought process in the greatest detail!

81	5 minutes	L 81	0:05:99
82	7 minutes	L 82	0:07:99
83	10 minutes	L 83	0:10:99
84	15 minutes	L 84	0:15:99
85	20 minutes	L 85	0:20:99
86	30 minutes	L 86	0:30:99
87	45 minutes	L 87	0:45:99
88	60 minutes	L 88	1:00:99
89	90 minutes	L 89	1:30:99
90	100 minutes	L 90	1:40:99

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 announces this (e.g., **Black loses on time**) and flashes t along with the elapsed time to show that the game is over.

If you select a Speed Chess Level, you may want to set the clocks to display countdown time instead of elapsed time (see Section 5.1). When the time runs out, the countdown clock automatically reverts back to the normal clock display.

3.5 Problem Solving Levels

LEVEL	PROBLEM	ALTERNATING DISPLAY
91	Mate in 1	L 91 t in 1
92	Mate in 2	L 92 t in 2
93	Mate in 3	L 93 t in 3
94	Mate in 4	L 94 t in 4
95	Mate in 5	L 95 t in 5
96	Mate in 6	L 96 t in 6
97	Mate in 7	L 97 t in 7
98	Mate in 8	L 98 t 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 would like the computer to find it, set the computer on one of the Problem Solving Levels. Your chess computer can solve mates in up to eight moves. Mates in one to five are usually found quite quickly, whereas solutions taking six to eight moves may take quite some time. If there is no mate present or the computer cannot find a mate, it will display a series of dashes (-----). You may continue to play, if desired, by switching levels.

PLAYING LEVELS AT A GLANCE!

For more details, see Section 3.

FUN LEVELS

DESCRIPTION	ALTERNATING DISPLAY
1 Fun Level 1	L 1 Fun: 1
2 Fun Level 2	L 2 Fun: 2
3 Fun Level 3	L 3 Fun: 3
...ALL THE WAY UP TO...	
58 Fun Level 58	L 58 Fun:58
59 Fun Level 59	L 59 Fun:59
60 Fun Level 60	L 60 Fun:60

CASUAL PLAY LEVELS

AVERAGE TIME PER MOVE	ALTERNATING DISPLAY
61 1 second per move	L 61 L 0:01
62 2 seconds per move	L 62 L 0:02
63 5 seconds per move	L 63 L 0:05
64 10 seconds per move	L 64 L 0:10
65 15 seconds per move	L 65 L 0:15
66 30 seconds per move	L 66 L 0:30
67 45 seconds per move	L 67 L 0:45
68 1 minute per move	L 68 L 1:00
69 2 minutes per move	L 69 L 2:00
70 3 minutes per move	L 70 L 3:00

TOURNAMENT LEVELS

NUMBER OF MOVES/TOTAL TIME	ALTERNATING DISPLAY
71 40 moves in 1 hour 20 min.	L 71 1:20:40
72 40 moves in 1 hour 30 min.	L 72 1:30:40
73 35 moves in 1 hour 45 min.	L 73 1:45:35
74 40 moves in 1 hour 45 min.	L 74 1:45:40
75 35 moves in 1 hour 30 min.	L 75 1:30:35
76 40 moves in 2 hours	L 76 2:00:40
77 45 moves in 2 hours 30 min.	L 77 2:30:45
78 50 moves in 2 hours	L 78 2:00:50
79 40 moves in 2 hours 30 min.	L 79 2:30:40
80 40 moves in 3 hours	L 80 3:00:40

SPEED CHESS LEVELS

TOTAL TIME PER GAME	ALTERNATING DISPLAY
81 5 minutes	L 81 0:05:99
82 7 minutes	L 82 0:07:99
83 10 minutes	L 83 0:10:99
84 15 minutes	L 84 0:15:99
85 20 minutes	L 85 0:20:99
86 30 minutes	L 86 0:30:99
87 45 minutes	L 87 0:45:99
88 60 minutes	L 88 1:00:99
89 90 minutes	L 89 1:30:99
90 100 minutes	L 90 1:40:99

PROBLEM SOLVING LEVELS

PROBLEM	ALTERNATING DISPLAY
91 Mate in 1	L 91 t in 1
92 Mate in 2	L 92 t in 2
93 Mate in 3	L 93 t in 3
94 Mate in 4	L 94 t in 4
95 Mate in 5	L 95 t in 5
96 Mate in 6	L 96 t in 6
97 Mate in 7	L 97 t in 7
98 Mate in 8	L 98 t in 8

TACTICAL LEVEL

DESCRIPTION	ALTERNATING DISPLAY
99 Tactical Play (no time limit)	L 99 t t t

INFINITE LEVEL

DESCRIPTION	ALTERNATING DISPLAY
100 Infinite (no time limit)	L 100 9:99:99

3.6 Tactical Level

LEVEL DESCRIPTION ALTERNATING DISPLAY

99 Tactical Play (no time limit) L 99 t3ct

On the Tactical Level, the computer plays differently because it employs a different search method. On this level, the computer's goal is to find the best tactical sequence more quickly than it would on a normal playing level. This level is similar to the Infinite Level described in Section 3.7, in that it searches indefinitely until you stop the search by pressing **YES/✓**, or until it finds a forced mate. Use the Tactical Level for experimentation, allowing the computer to concentrate fully on special tactical positions!

3.7 Infinite Level

LEVEL DESCRIPTION ALTERNATING DISPLAY

100 Infinite (no time limit) L 100 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 **YES/✓**. If the search is halted, the computer makes the move it currently thinks is best. Try experimenting with this level—set up special board positions and let the computer analyze them for you! It will think for hours and even days on end, trying to come up with the best possible move. And don't forget to watch it as it thinks—take advantage of the Rotating Display feature described in Section 5.4!

4. TUTORIAL LESSONS

About the Tutorials

See **"LEARN ALL ABOUT CHESS WITH 100 VOICE TUTORIALS!"** for a listing of all the Tutorial Lessons.

One of the most unique features of this computer is its ability to teach you all about the game of chess! With 100 Tutorial Lessons to choose from, you can improve your skills tremendously with this feature. And, with over three hours of human voice instructing you, you'll feel like you have a personal trainer sitting right by your side! Perfect for all types of players, the tutorials cover a broad range of lessons:

- Basic chess moves and elementary rules
- Various types of basic endgames
- Detailed information on opening rules and systems
- Advice on tactical play and combinations
- In depth studies of pawn structure
- Examples of typical mating schemes
- Replays and annotated studies of famous chess matches and games played by world champions

These built-in tutorials have so much to offer—and, as you will see, the voice that guides you through each tutorial makes learning so easy! Simply follow the spoken instructions, watch the display window and board lights—you'll be amazed at how much fun it is to learn chess this way!

4.1 Selecting a Tutorial Lesson

See **"WANT TO SELECT A TUTORIAL? HERE'S HOW!"** for an illustrated, step-by-step example!

Refer to the Tutorial Chart to choose one of the built-in lessons. Press **TUTORIAL**, and the display will show the current Tutorial Lesson. Use the **FWD** and **BACK** keys to increase or decrease the lessons by one. As a shortcut, pressing **TUTORIAL** increases the lessons by ten. When your desired tutorial is displayed, press **YES/✓** to enter your selection into the computer and start your tutorial. Please also note the following:

- Tutorial Lessons can be changed at any time. If you change in the middle of a tutorial, that lesson is discontinued and the new one begins.
- To view the current Tutorial Lesson at any time, press **TUTORIAL**. If you then press **NO/X** to exit, level and clock settings will not be changed, and any current lesson will not be interrupted.
- If you should press an invalid key during a tutorial, you'll hear **That key is not allowed here, That is incorrect,**

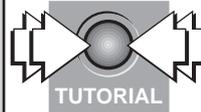
WANT TO SELECT A TUTORIAL? HERE'S HOW!



1. Press **TUTORIAL** and the current Tutorial Lesson is displayed.
Let's say you want to select the tutorial on Opening traps.



2. Press **FWD** or **BACK** to increase or decrease the tutorials by one. Watch for Tutorial Lesson 30 (t u 30), displayed as t r RPS.



SHORTCUT: To skip over ten lessons at a time, press **TUTORIAL** repeatedly!



3. When t u 30 and t r RPS are displayed, you have found the correct tutorial.



4. Press **YES/✓** to enter this lesson into the computer. That's it!

See the Tutorial Chart for a complete list of all 100 Tutorials.

For more info on choosing Tutorials, see Section 4.

or **Invalid key.**

- To exit Tutorial Mode during a lesson, press **NO/X** at any time (except when the computer is waiting for an answer or input from you). The computer will ask if you want to leave the lesson—press **YES/✓** to confirm. Note that the board position is the same as when you left the tutorial. Reset for a new game, if desired, by simultaneously pressing **YES/✓** and **NO/X**.
- The Sound and Coach Levels may be changed automatically by the current tutorial. These same Sound and Coach Levels will remain in effect when you exit Tutorial Mode.
- Do not attempt to change the Sound or Coach Levels during a tutorial.
- When a tutorial ends, the level of play and/or certain Option Mode settings may be changed automatically, depending on which tutorial you have completed. Check the current settings for your own information, and then try to practice what you have just learned!

4.2 Tips on Taking Tutorials

Now you're ready to start your selected tutorial! The voice coach automatically takes over, and the computer explains exactly what you should do. Depending on the tutorial you have chosen, the computer may start by explaining a game concept, or having you set up a certain position. If a tutorial asks you to set up a new game (the display shows 5t 3r t), set up the pieces and then press **YES/✓** to continue. Along the way, you may be asked to solve quizzes such as finding the best move and identifying key squares—anything can happen! You will see displays such as t 25t and t : F (true-false) as the computer tests you. To respond, you might have to press a square, make a move, or simply press **YES/✓** or **NO/X** to answer a question or confirm a true-false statement. While the unit awaits your input, "reminder beeps" will sound. After you respond, the tutorial will continue.

*Remember: If you don't hear what the computer says, press **SAY AGAIN**. Pressing this key repeatedly may also give you other previously spoken information. You can use this feature regardless of the current Sound Level—pressing **SAY AGAIN** will always repeat the phrase(s) that you would have heard on Sound Level 4.*

LEARN ALL ABOUT CHESS WITH 100 VOICE TUTORIALS!

For detailed instructions, see Section 4.

LEARNING THE RULES

LESSON	ALTERNATING DISPLAY
1 Notation (board, squares)	1 n0tAtE --
2 Moving King + Queen	2 rULeS ♔♚
3 Check	3 cHEcK --
4 Mate	4 mAtE --
5 Moving Rook + Bishop + Knight	5 rULeS ♖♗♘
6 Moving pawn	6 rULeS ♟
7 Pawn promotion	7 Pr0n0 --
8 Piece values	8 c0UnT --
9 Special rules: En passant	9 EnPAsS --
10 Special rules: Castling	10 cAsT --

TACTICS/COMBINATIONS

LESSON	ALTERNATING DISPLAY
51 Sacrifices	51 sARcRi --
52 Tricky (feigned) sacrifices	52 tRiCk --
53 Pins	53 PiNS --
54 Pawn forks	54 F0r ♜
55 Knight forks	55 F0r ♞
56 Discovered check	56 dISc0 --
57 Double discovered check	57 d0Ubl --
58 Steering	58 StEEr --
59 Diversion	59 dISi0 --
60 Practice positions	60 PrAc --

SIMPLE ENDGAMES

LESSON	ALTERNATING DISPLAY
11 King + Queen	11 End0R ♔♚
12 King + Rook	12 End0R ♔♖
13 King + 2 Bishops	13 End0R ♔♗
14 King + 2 Knights	14 End0R ♔♞
15 King + Bishop + Knight	15 End0R ♔♗♞
16 Opposition I: King + pawn	16 0PP0S ♔♟
17 Rule of Square: King + pawn	17 sQuAR ♔♟
18 Zugzwang: King + pawn	18 F0rCE ♔♟
19 Opposition II: King + pawn	19 0PP0S ♔♟
20 Promotion: King + pawn	20 Pr0n0 ♔♟

PAWN STRUCTURE

LESSON	ALTERNATING DISPLAY
61 Pawn definitions I	61 dEFi --
62 Pawn definitions II	62 dEFi --
63 Pawn structures	63 StRUC --
64 Central pawns	64 cENt --
65 Isolani	65 IS0LA --
66 Doubled pawns	66 d0Ubl --
67 Outside pawns	67 0UtPR --
68 Backward pawns	68 bARCPA --
69 Pawn storm	69 St0rM --
70 Stalemate	70 StALE --

GOLDEN OPENING RULES

LESSON	ALTERNATING DISPLAY
21 Central pawns	21 cENt ♟
22 Center control	22 c0nT --
23 Develop with threat	23 dEvEL --
24 First Knight, then Bishop	24 FirSt --
25 Move piece only once	25 0ncE --
26 No unmotivated pawn moves	26 n0tEv --
27 Castling (safety)	27 cAsT --
28 Don't develop Queen too early	28 dEvEL ♚
29 Strong center squares	29 cENt --
30 Opening traps	30 tRAPS --

TYPICAL MATING SCHEMES

LESSON	ALTERNATING DISPLAY
71 Back-rank mate	71 bARCR --
72 Smothered mate	72 sM0tH --
73 Arabian mate	73 ARAb --
74 Anastasia mate	74 AnAS --
75 Greco's mate	75 GReco --
76 Reti's mate	76 rEtI --
77 Morphy's mate	77 M0rPH --
78 Damiano's mate	78 dAMiA --
79 Swallowtail mate	79 SwAIL --
80 Epaulette mate	80 EpAUL --

OPENING SYSTEMS I

LESSON	ALTERNATING DISPLAY
31 Names of openings	31 nAmES --
32 Open games: Italian	32 ItAlI --
33 Open games: Spanish	33 sPAn --
34 Open games: King/Center Gambit	34 GbIt --
35 Open games: Russian	35 RuSS --
36 Open games: Scottish	36 Sc0t --
37 Semi-open games: Sicilian	37 SiLi --
38 Semi-open games: French	38 FrAn --
39 Semi-open games: Caro-Kann	39 cAR0 --
40 Semi-open games: Scandinavian	40 ScAn --

SAMPLE GAMES

LESSON	ALTERNATING DISPLAY
81 Well-known teen games	81 tEENs --
82 Well-known teen games	82 tEENs --
83 Well-known teen games	83 tEENs --
84 Well-known teen games	84 tEENs --
85 Famous games	85 fAmE --
86 Famous games	86 fAmE --
87 Famous games	87 fAmE --
88 Young and wild (Kramnik)	88 Y0Ung --
89 Young and wild (Topalov)	89 Y0Ung --
90 Young and wild (Anand)	90 Y0Ung --

OPENING SYSTEMS II

LESSON	ALTERNATING DISPLAY
41 Semi-open games: Alekhine	41 AlEh --
42 Closed games: Queen's Gambit	42 GbIt ♚
43 Closed games: King's Indian	43 IndI ♚
44 Closed games: Gruenfeld Indian	44 GRuN --
45 Closed games: Nimzo-Indian	45 Ntch --
46 Closed games: Queen's Indian	46 IndI ♚
47 Dutch Defense	47 HolI --
48 English Opening	48 EngL --
49 Various gambits	49 GbItS --
50 Special openings	50 sPEc --

WORLD CHAMPIONS

LESSON	ALTERNATING DISPLAY
91 Steinitz	91 StEIt --
92 Lasker	92 lASh --
93 Capablanca	93 cAPR --
94 Euwe	94 EUe --
95 Botvinnik	95 b0t --
96 Tal	96 tAl --
97 Petrosian	97 pEtR0 --
98 Spassky	98 sPRSS --
99 Karpov	99 kARp0 --
100 Kasparov	100 kASPR --

5. GAME OPTIONS

In addition to all the features described so far, your chess computer also offers many other intriguing game options, all of which are user-selectable at any time during the game. The options are described individually in this section, and summarized in the Option Mode Chart.

Selecting Game Options

See “**OPTION MODE: A COMPLETE OVERVIEW!**” for a chart summarizing how to use Option Mode. It also shows all your option choices at a glance!

The Game Options are divided into four main groups: *Operation Mode*, *Playing Mode*, *Opening Rules*, and *Rotating Display*. Pressing **OPTION** cycles from one group to another. Each main group contains a number of different sub-groups, and the **FWD** and **BACK** keys are used to cycle through the options within each of the groups. For most options, a plus (+) in the display indicates the displayed option is ON, and a minus (–) means the option is OFF. Press **YES/✓** to turn the options on or off or to select level settings (if any), as they are displayed. Remember that pressing **OPTION** cycles through the four main groups, so you can switch to any of the four main groups at any time. After you have made your option selections from any or all of the option groups, press **NO/X** to exit Option Mode and return to normal game play.

Note that two options don’t conform to the basic on (+) and off (–) setting procedure described above. These include the *Sound Level* and *Coach Level* options. For more details, see the individual descriptions in this section.

When the computer is first powered on, certain default options are set. Options which are automatically in effect at the first startup are shown in the chart with an asterisk (*). Whenever you reset the computer for a new game, most of your selected options are carried over to the next game. Some exceptions are *Auto Response*, which is automatically set back to ON when you start a new game, and *Play White from Top*, which is automatically set back to OFF.

5.1 Operation Mode Options

See “**OPTION MODE: A COMPLETE OVERVIEW!**” for a chart showing all the **Operation Mode Options**.

Press **OPTION** once to select the **Operation Mode Options**. Then, use the **FWD** and **BACK** keys to select the options within this group. Press **YES/✓** to turn the options ON or OFF, or to select level settings (if any).

a. Auto Response

On: + RUL Off: - RUL

Normally, the computer automatically answers with a countermove whenever you enter a move. If you turn Auto Response off, however, you can enter any number of moves one by one, without allowing the computer to answer. This feature can be used in a number of ways:

- Play through master games. Press **YES/✓** to see what the computer would do in any position!
- Keep records of your own chess games. When a game is over, play to certain board positions to see how other moves or different strategies might have affected the outcome—watch and learn!
- Study opening book lines by entering them manually!
- Play against a friend, with the computer acting as a referee by checking all moves for legality and keeping track of the time for both sides!
- Replay to any board position for further study.

If you have some of the coaching features in effect, you can learn as you go, even when playing against a friend. The computer will watch as you play, and give both sides hints, suggestions, warnings, and references to tutorials you might want to take to improve your game!

When playing against another person, if you want to see what the computer would do in your position, press **YES/✓**

and it will make your next move. After it has moved, Auto Response remains off, and you can continue play.

Note that this option will automatically go back to its default setting of +RUL whenever you start a new game by simultaneously pressing **YES/✓** and **NO/X**.

b. Sound Levels

Options: -SND, SND 1, SND2, SND3, SND4

Your computer has five different Sound Level settings, giving you complete control over your desired amount of voice interaction! To choose a Sound Level, repeatedly press **YES/✓** to select one of the levels. When the level you want is displayed, either go on to select other options or exit Option Mode—the Sound Level that was last displayed will automatically be in effect. Note that when you first turn the computer on, it defaults to Sound Level 2. Try them all out to see which is your favorite!

- -SND: *Sound Off*. On this level, there is no beep or voice to acknowledge the basics (such as *New Game*, *Move Ready*, *Check*, etc.). When you choose this Sound Level together with the *Coaching Off Level* (-COCH), you will get complete silence—a very convenient option for those late-night chess games!
- SND 1: *Minimal Nonverbal*. On this level, you will hear various types of beeps and other game sounds instead of voice output. This level is considered “minimal” because the computer will only acknowledge the basics, such as your moves, keypresses and certain events (*new game*, *move ready*, *check*, etc.). This level basically simulates most other non-voice chess computers.
- SND2: *Minimal Verbal*. This level is essentially the voice equivalent of Sound Level 1—the voice will announce the basics. You’ll hear, for example, **Move ready** when the computer moves, **Error** when a mistake occurs, **E2** when square E2 is pressed, etc.
- SND3: *Functional*. On this level, the voice will describe what is happening functionally. For example, instead of simply saying **New level** (as on Sound Level 2) when **YES/✓** is pressed to exit Level Mode, here the voice will say **New level selected**, along with a verbal description of the newly selected level. Similarly, levels and options are described as they are selected, as in **Level Number 83: 10 minutes per game** and **Auto Response on**.
- SND4: *All On (Demo)*. On Sound Level 4, the machine says everything possible. Choose this level when you don’t want to miss a single thing—and when you want to show off your computer’s extraordinary voice capabilities to all your friends!

Remember that the *Volume Control Slider* controls the volume, and the *Tutorial Lessons* and *Coach Levels* have voice “scripts” of their own, regardless of the currently selected Sound Level. For other important points regarding the computer’s voice and sound features, see “**SPECIAL NOTES REGARDING SOUND**” in Section 2.

c. Coach Levels

Options: -COCH, COCH 1, COCH2, COCH3

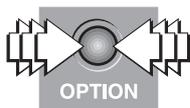
With four different Coach Levels to choose from, you can select just the right amount of coaching for your personal needs! To choose a Coach Level, press **YES/✓** repeatedly to select the setting you want. When your desired level is displayed, either go on to select other options or exit Option Mode—the Coach Level that was last displayed will be in effect automatically. Note that when you first turn the computer on, it defaults to Coach Level 2.

- -COCH: *Coaching Off*. Select this option if you do not want any of the coaching features turned on.
- COCH 1: *Minimal Coaching*. This level is meant for the more advanced player. Here, the computer assumes that you are familiar with obvious tactics and strategies, and thus will not bring them to your attention. It may, however, make you aware of advanced strategies and tactics which are not obvious, such as sacrifices or combinations. It will also identify the names of openings.
- COCH2: *Normal Coaching*. On this Coach Level, the computer gives the amount of assistance it deems

OPTION MODE: A COMPLETE OVERVIEW!

For detailed instructions, see Section 5.

1. Press the OPTION Key to select a Mode.

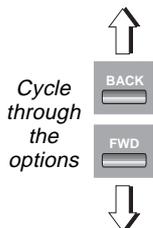


- 1 time = OPERATION MODE OPTIONS.
- 2 times = PLAYING MODE OPTIONS.
- 3 times = OPENING RULES OPTIONS.
- 4 times = ROTATING DISPLAY OPTIONS.

Note: Pressing **OPTION** a fifth time cycles back to the beginning.

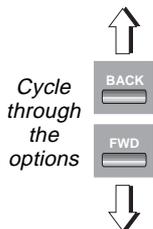
2. Select your options within the Mode.

OPERATION MODE OPTIONS



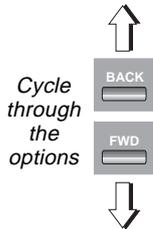
	ON	OFF	
Auto Response	+Aut*	-Aut	Press to turn settings on/off or select level settings (if any)
Sound Level 0.. Sound off		-Snd	
1.. Minimal nonverbal	Snd1		
2.. Minimal verbal	Snd2*		
3.. Functional	Snd3		
4.. All on (demo)	Snd4		
Coach Level 0.. Coaching off		-Coch	Press to turn settings on/off or select level settings (if any)
1.. Minimal coaching	Coch1		
2.. Normal coaching	Coch2*		
3.. Maximum coaching	Coch3		
Clock Ticking	+Clk	-Clk*	
Countdown Clock	+Cdn	-Cdn*	
Play White from Top	+top	-top*	

PLAYING MODE OPTIONS



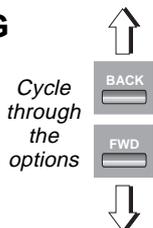
	ON	OFF	
Selective search	+SEL*	-SEL	Press to turn settings on/off
Opening Books	+book*	-book	
Book: Italian Opening (Giuoco Piano)	+Ital*	-Ital	
Book: Spanish Opening (Ruy Lopez)	+SPan*	-SPan	
Book: King's/Center Gambit	+Gbit*♠	-Gbit*♠	
Book: Russian (Petrov's) Defense	+ruSS*	-ruSS	
Book: Scotch Gambit	+Scot*	-Scot	
Book: Sicilian Defense	+Sic*	-Sic	
Book: French Defense	+FrAn*	-FrAn	
Book: Caro-Kann Defense	+CAn*	-CAn	
Book: Scandinavian Defense	+ScAn*	-ScAn	
Book: Alekhine's Defense	+ALEn*	-ALEn	
Book: Queen's Gambit	+Gbit*♠	-Gbit*♠	
Book: King's Indian Defense	+Indl*♠	-Indl*♠	
Book: Gruenfeld Defense	+Gru*	-Gru	
Book: Nimzo-Indian Defense	+Ntch*	-Ntch	
Book: Queen's Indian Defense	+Indl*♠	-Indl*♠	
Book: Dutch Defense	+Hol1*	-Hol1	
Book: English Opening	+EnGl*	-EnGl	
Book: Various Gambits	+Gbit*	-Gbit	
Book: Unusual Openings	+UnuS*	-UnuS	

OPENING RULES OPTIONS



	ON	OFF	
Opening Rules	+rul2	-rul2*	Press to turn settings on/off
Rules: Central pawns	+Cent▲	-Cent▲*	
Rules: Center control	+Cct1	-Cct1*	
Rules: Develop with threat	+thrt	-thrt*	
Rules: Knights before Bishops	+bEf▲♠	-bEf▲♠*	
Rules: Move only once	+onc2	-onc2*	
Rules: Avoid moving pawns	+no▲	-no▲*	
Rules: Castle early	+CRSt	-CRSt*	
Rules: Avoid moving Queen early	+no♠	-no♠*	
Rules: Strong center squares	+Cent	-Cent*	
Rules: Opening traps	+trAP	-trAP*	

ROTATING DISPLAY OPTIONS



	ON	OFF	
Predicted variation to depth 1	+rd:1	-rd:1*	Press to turn settings on/off
Predicted variation to depth 2	+rd:2	-rd:2*	
Predicted variation to depth 3	+rd:3	-rd:3*	
Predicted variation to depth 4	+rd:4	-rd:4*	
Search depth + move examined	+rd:d	-rd:d*	
Evaluation value	+rd:E	-rd:E*	
Nodes searched per second	+rd:n	-rd:n*	
Time per move	+rd:t	-rd:t*	

3. Press to exit Option Mode.

*Power on default settings

a. Opening Rules

On: +r u l ⑆ Off: -r u l ⑆

When your turn this option from OFF to ON by pressing **YES/✓**, the computer activates all the opening rules. If you turn this option from ON to OFF by selecting -r u l ⑆ with **YES/✓**, you disable all the opening rules.

Please note that +r u l ⑆ will be displayed if **any** opening rule is turned on, and -r u l ⑆ will be displayed if **all** opening rules are turned off. This option is included mainly for convenience, to turn all the opening rule options on or off.

b. Individual Opening Rules

You also have the option of instructing the computer to turn on only one opening rule or a specific combination of rules. This feature allows you to study certain chess rules in depth. To do this, simply turn the rules on and off individually. Refer to the Option Mode Chart for a list of all the individual rules, along with their ON/OFF displays. Note that some of the displays include identifying icons.

The individual Opening Rules choices include such rules as moving Knights before Bishops, avoiding early Queen moves, castling early in the game, gaining control of the center, and many others. For a complete list, refer to the Option Mode Chart.

5.4 Rotating Display Options

IMPORTANT: The Rotating Display feature is only activated **WHILE THE COMPUTER IS THINKING**.

See **“OPTION MODE: A COMPLETE OVERVIEW!”** for a chart showing all the Rotating Display Options.

Press **OPTION** four times to select the Rotating Display Options. Then, use the **FWD** and **BACK** keys to select the options you want to see rotated. Press **YES/✓** to turn these options ON or OFF.

Normally, the computer’s display shows the time for the player to move. However, the computer can also display other information, as described in Section 6 (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 approximately one-second increments. You may turn on any or all of the Rotating Display options, as desired.

The game information you can see **while the computer is thinking** includes the following:

- +r d : 1 to +r d : 4 = the predicted line of play (up to four individual moves).
- +r d : d = the computer’s search depth and number of moves examined so far in the game.
- +r d : E = an evaluation of the current position.
- +r d : n = the number of nodes searched per second.
- +r d : t = the amount of time the move has taken so far.

When requested information is not available, the display will show a series of dashes (-----).

For complete descriptions of these options and full details on exactly how to interpret the displays, go on to Section 6!

6. 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. However, when you play chess against this computer, you can do exactly that! In fact, you can gather a wealth of information about the computer’s thought process—and studying this information can help you learn more about chess!

Using Info Mode

See **“AN OUTLINE OF INFO MODE”** for a chart showing how to use Info Mode, and a listing of all the Info Mode options.

You may access game information at any time by using Info Mode. If you do this while the computer is thinking, you will see the information displays change as the computer

AN OUTLINE OF INFO MODE
For details, see Section 6.

PRINCIPAL VARIATION INFO:

HINT/INFO

x 1....

Predicted line of play: 1st move

Cycle through the displays

↑

BACK

- Predicted line of play: 2nd move

↓

FWD

- Predicted line of play: 3rd move

↓

- Predicted line of play: 4th move

SEARCH INFO:

HINT/INFO

x 2....

Evaluation of current position

Cycle through the displays

↑

BACK

- 2 numbers: Search depth (number of moves computer is looking ahead) + number of moves examined so far

↓

FWD

- Current move under consideration

↓

- Number of nodes (positions) being searched per second

CHESS CLOCK INFO:

HINT/INFO

x 3....

Elapsed time since last move

Cycle through the displays

↑

BACK

- Elapsed time for White

↓

FWD

- Elapsed time for Black

↓

- Remaining time for White*
- Remaining time for Black*

*Speed Chess/Tournament Levels only

MOVE COUNT INFO:

HINT/INFO

x 4....

Current move number so far

Cycle through the moves

↑

BACK

- Moves of the current game

↓

FWD

considers different moves and searches deeper.

Game information is divided into four groups, and pressing **HINT/INFO** cycles from one group to another. The **FWD** and **BACK** keys can be used to cycle through the displays within each of the groups. Press **NO/X** to exit Info Mode and go back to showing the normal chess clock.

After familiarizing yourself with Info Mode, refer back to Section 5.4 for a description of the user-programmable Rotating Display feature. Selecting this feature causes the computer to automatically cycle through the information described below in approximately one-second intervals every time it thinks about its move—you can actually watch the computer “think out loud”!

Whenever requested information is not available, the display will show a series of dashes (-----).

6.1 Principal Variation

Press **HINT/INFO** the first time to see the first move of the principal variation (the line of predicted play). This first move is the move the computer is currently considering

making. Press the **FWD** key repeatedly to see the rest of the moves in this line of play, as noted below. The principal variation is shown to a maximum depth of four ply, or four individual moves. The **BACK** key can be used to back up and see previous displays again.

- Predicted line of play: 1st move.
- Predicted line of play: 2nd move.
- Predicted line of play: 3rd move.
- Predicted line of play: 4th move.

Since the first move of the predicted line of play is the move the computer assumes you will make, you can also consider this move as a hint! So—whenever you need help, press **HINT/INFO** on your turn! For details, see Section 2.5.

6.2 Search Information

Press **HINT/INFO** a second time to get information on the computer's search. Use the **FWD** key to cycle through the four displays listed below. The **BACK** key can be used to back up and see previous displays again.

- Numerical evaluation of the current position, based on a pawn being worth 1.0 points. A positive number indicates that White is ahead. *Note that this score is not valid on the Problem Solving Levels or Tactical Levels, since a different search method is used.*
- Two numbers. The first is the current search depth, or the number of individual moves the computer is looking ahead. The second is the number of moves the computer has examined so far.
- The move currently being evaluated.
- The search speed, or number of positions (nodes) being searched every second. Watch as this number changes!

6.3 Chess Clocks

Press **HINT/INFO** a third time to gain access to chess clock information. Use the **FWD** key to cycle through all the clock displays, as described below. The **BACK** key can be used to back up and see previous displays again.

- Time since the last move was executed.
- Total elapsed time for White.
- Total elapsed time for Black.
- Remaining time for White (*Speed Chess/Tournament Levels only*).
- Remaining time for Black (*Speed Chess/Tournament Levels only*).

The chess clocks keep track of the time for both sides. The clocks stop whenever you take back a move, check level settings, select options, verify or set up a position, or turn the computer off. In all of these cases, however, the times are retained in memory, and the clocks resume as soon as play is continued. Whenever you change the playing level or press **YES/✓** and **NO/X** together to reset the computer for a new game, the chess clocks are always reset to 0 : 00 : 00.

6.4 Move Count/Game Moves

Press **HINT/INFO** a fourth time to show the move number in the game so far. You can then use the **BACK** key to cycle back through the moves of your game (up to 64 individual moves). The **FWD** key can also be used to go forward again at any point and see all the moves. This gives you an opportunity to go back and write down the moves (up to the last 64 individual moves) of a game that turns out to be unexpectedly great!

- Move number in game so far.
- Moves of the current game.

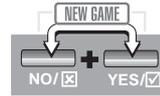
7. VERIFYING/SETTING UP POSITIONS

7.1 Verifying Positions

See **"IT'S EASY TO VERIFY PIECES!"** for a step-by-step example of using Verify Mode.

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

IT'S EASY TO VERIFY PIECES!



1. Press **NO/X** and **YES/✓** together to reset the computer for a new game. Display: 0 : 00 : 00.



2. Press **KNIGHT**. Display: ♖b1 (1st White Knight). Square b1 lights up.



3. Press **KNIGHT** again. Display: ♖g1 (2nd White Knight). Square g1 lights up.



4. Press **KNIGHT** again. Display: ♜b8 (1st Black Knight). Square b8 lights up.



5. Press **KNIGHT** again. Display: ♜g8 (2nd Black Knight). Square g8 lights up.



6. Press **KNIGHT** again. Display: ♞ (no more Knights left on the board).



7. Repeat the above for any piece you want to verify! Press **NO/X** to exit Verify Mode.

For more details, see Section 7.1.

TRY OUT POSITION MODE!



1. Press **NO/X** and **YES/✓** together to reset the computer for a new game. Display: 0 : 00 : 00.



2. Press **POSITION** to enter Position Mode. Display: -P05-



3. Press the White pawn down on Square e2, and remove it from the board. Display: ♙-E2.



4. Press that same pawn down on Square e3 to add it to the board. Display: ♙+E3.



5. Press the Black Queen down on Square d8, and remove it from the board. Display: ♛-d8.



6. Press that same Queen down on Square h5 to add it to the board. Display: ♛+H5.



7. Press **WHITE** to change the color to move next.



8. Press **NO/X** to exit; then press **YES/✓** to confirm your new position and return to game play.



For more details, see Section 7.2.

When it is your turn, press one of the Piece Symbol Keys (♙, ♚, ♛, ♜, ♝, or ♞). The computer says the name of the piece, and uses board lights and the display to show you where the first piece of that type is located. The display shows the piece, color, and square location, and the light turns on for that square. 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 the 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 **NO/X** to return to normal play.

7.2 Changing Positions

See **“TRY OUT POSITION MODE!”** to get an idea of how this feature works.

Your computer allows you to set up board positions to play from or chess problems you want the computer to solve.

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

Press **POSITION** to enter Position Mode, and the display shows $-P05-$. You may change or set up a board position whenever it is your turn to move. After you have set up your desired position, press **NO/X**. The computer will ask if you want to play from this new position; press **YES/✓** to confirm and to exit Position Mode.

- **To remove a piece from the board**, press the piece on its square and then remove it. Notice that the display indicates the piece type and color, along with a minus sign and the location for that square.
- **To move a piece from one square to another**, press the piece on its original square, pick it up, and then press it on the new square. As you do this, the display will show a minus sign for the first square, and a plus sign for the second square.
- **To add a piece to the board**, first press the Piece Symbol Key for that piece (♙, ♘, ♗, ♖, ♕, or ♔). Make sure the display shows the correct color symbol for the piece you want to add. If not, press **BLACK** or **WHITE** to change the color. When the display shows the correct piece type and color, place that piece on the desired square and press down. The display shows a plus sign, along with the location for that square. 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 **YES/✓** while you are in Position Mode. The display will show ${}_{-}{}_{-}{}_{-}{}_{-}$ to symbolize an empty chessboard, and the computer will ask **Clear board?** Press **YES/✓** once more to confirm that you do want to clear the board. Then add pieces as described previously. If you do not want to clear the board, press **NO/X** to cancel. This feature can be handy when you want to set up a position with only a few pieces, where it would be easier to start out with an empty board!
- **Once you have changed the position as described above**, make sure the color indicator in the display is showing the correct color of the side to move. Change the color, if necessary, by pressing **BLACK** or **WHITE**.
- **To exit Position Mode**, press **NO/X**. When the computer asks for confirmation with $E n d ?$, press **YES/✓** to return to normal play with your new board position.

Note that any legal board position can be set up using the above procedures. 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. In such cases, after you press **NO/X** to exit Position Mode, and then **YES/✓** to confirm, the computer will display $E r r o r$. You will not be allowed to exit Position Mode until you have set up a legal board position.

8. TECHNICAL DETAILS

8.1 The ACL Function

Computers sometimes “lock up” due to static discharge or other electrical disturbances. If this should happen, 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.

8.2 Care and Maintenance

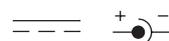
Your chess computer is a precision electronic device, and should not be subjected to rough handling or exposed to extreme temperatures or moisture. Be sure to disconnect the adapter (if applicable) and remove the batteries before cleaning this unit. Do not use chemical agents or liquids to clean the unit, as they may damage the plastic.

Weak batteries should be replaced promptly, since they can leak and damage the computer. Please also note the following regarding the use of batteries. **Warning: Use only alkaline or zinc carbon batteries. Do not mix different types of batteries or new and used batteries. Do not recharge non-rechargeable batteries. Use only the recommended batteries or equivalent. Be sure to observe the correct polarity when inserting batteries. Worn out batteries should be removed from the unit promptly. Do not short circuit the supply terminals.**

If an AC-DC adapter is used with this unit, it must be as specified in Section 8.3. An adapter is not a toy and should be handled with care. Please also note the following regarding the use of an AC-DC adapter. **Warning: Use a center positive adapter with safety isolating transformer. The polarity symbols confirming its center positivity should be clearly marked on the adapter, and the adapter must comply with CEE publication 15. The adapter should be regularly examined for potential hazards such as damage to the plug, cable or cord, casing or other parts. In the event of damage, the adapter should not be used.**

8.3 Technical Specifications

Clock Frequency:	16 MHz
Keys:	17
LED Lamps:	64; 3 mm
LCD Display:	48-segment, 5-digit
Speaker:	78 mm diameter
Batteries:	6 x (1.5V) “C” (AM2/R14) cells ${}_{-}{}_{-}{}_{-}{}_{-}$
Dimensions:	410 x 270 x 40 mm
Weight:	1.3 Kg
AC-DC Adapter:	9V/300mA center-positive (EN 60742 compliant)



Please retain this information for future reference.

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

TROUBLESHOOTING GUIDE

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
The computer doesn't react, or "freezes" during a game.	<ul style="list-style-type: none"> Batteries not installed correctly. Batteries weak or bad. Static discharge or an electrical disturbance has caused a lock-up. 	<ul style="list-style-type: none"> Install batteries as shown in the <i>Quick Start</i>. Replace the batteries. Press into the hole marked ACL to reset the computer, as described in Section 8.1.
Display is difficult to read.	<ul style="list-style-type: none"> Batteries may be running out. 	<ul style="list-style-type: none"> Replace the batteries with fresh alkalines.
The computer will not make a move.	<ul style="list-style-type: none"> Auto Response option may be turned off. You may be on a level where the computer thinks for a long time. 	<ul style="list-style-type: none"> The computer only responds to your moves automatically if Auto Response is ON (see Section 5.1). You may interrupt the computer and force it to make a move by pressing YES/✓.
The computer will not accept your move.	<ul style="list-style-type: none"> Is it your turn? Is your King in check? Will your move put your King into check? Are you trying to castle incorrectly? Are you moving to an illegal square? The computer is thinking (its color symbol is flashing in the display). You have not entered the computer's last move correctly (wrong from or to square). 	<ul style="list-style-type: none"> Review the chess rules—check the rulebook or take advantage of the tutorials (see Section 4). <i>Note that your current game may be erased if you select a tutorial. Verify the position to be sure it is correct (see Section 7.1).</i> Interrupt the computer, if desired, by pressing YES/✓. Check the display, and press the correct square to complete the computer's move.
Error message shows when a square is pressed.	<ul style="list-style-type: none"> You have not entered the computer's last move correctly. You may be in Option Mode, Level Mode, Verify Mode, etc. 	<ul style="list-style-type: none"> Check the display, and press the correct square to complete the computer's move. Press NO/X to return to normal play and continue the game.
The computer seems to be making illegal moves.	<ul style="list-style-type: none"> The computer has made a special move, such as en passant, castling, or a pawn promotion. Your board position is incorrect—pieces have been moved. 	<ul style="list-style-type: none"> Review the chess rules. Verify the position as described in Section 7.1. Verify the position, as described in Section 7.1.
The computer is making instant or irrational moves.	<ul style="list-style-type: none"> The batteries are running out. The computer may be on a lower Fun Level, where it moves quickly and makes mistakes so the beginner can benefit from studying them. Some or all of the Opening Rules Options may be activated. The batteries are running out. 	<ul style="list-style-type: none"> Replace the batteries with fresh alkalines. Press LEVEL to see which level is selected. Change to a higher level, if desired. Turn the Opening Rules Option(s) OFF, if desired, as noted in Section 5.3. Replace the batteries with fresh alkalines.
The computer is silent.	<ul style="list-style-type: none"> The volume is turned all the way down. Both Sound Level 0 (-5nd) and Coach Level 0 (-5nd) are in effect, resulting in completely silent game operation. 	<ul style="list-style-type: none"> Push up the Volume Control Slider. Check the selected Sound and Coach Levels (see Section 5.1). Change, if desired.
You cannot hear a voice, only beeps.	<ul style="list-style-type: none"> Sound Level 1 (5nd) is in effect. 	<ul style="list-style-type: none"> Check the selected Sound Level (see Section 5.1). Change, if desired.
You hear a repeating series of beeps.	<ul style="list-style-type: none"> The computer has announced its move and is waiting for you to move its piece. The computer is waiting for you answer a question or give some input during a tutorial. The computer is reminding you to do something, for example, to put a captured piece back on the board after a take-back. 	<ul style="list-style-type: none"> Check the displayed computer move and make its move on the board. Check the display to see what the computer is expecting you to do. Press SAY AGAIN once or twice, if necessary, to hear what was said last. Check the display and board lights, and take the appropriate action. Press SAY AGAIN once or twice, if necessary, to hear what was said last.