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TROUBLESHOOTING GUIDE

INTRODUCTION

Ready to enter the exciting world of computer chess? You've come to the right place! Your new computer offers so many game options, playing levels, and special features—you'll never look at chess the same way again! The *Quick Start* at the front of the manual will get you playing right away, and you'll find more details on basic game operation in Section 1. Once you learn the basics, be sure to go on and explore the rest of this manual, even if you normally don't like to read instruction booklets! You'll discover that this chess computer has all kinds of other interesting and fun-filled features that will delight you—we guarantee it!

Your new computer knows and follows all the rules of chess—you can be sure that it will never cheat! For those of you who haven't played before, we have included a short overview of the rules to get you started. For more detailed information, why not visit your local library, where you're sure to find lots of interesting chess books!

1. LET'S GET STARTED!

1.1 First, Install the Batteries

Your computer runs on four "AA" (Type AM3/R6) batteries. Insert the batteries into the compartment in the base of the

SOME SOUND OPTIONS!

- Beeper volume too low or too high? Take a look at *Keys and Features* for the location of the Volume Control Switch!
- Keypress beeps can be turned on or off, as you'll see in Section 5.1 (Option B1).
- Want completely silent game operation? Find out how in Section 5.1 (Option C1).
- You can even make the built-in clock tick like an actual chess clock! For details, see Section 5.1 (Option D1).



unit, making sure to observe the correct polarity. Use fresh alkaline batteries for longer battery life!

If you would rather not power your unit with batteries, you may purchase an optional AC-DC adapter. Please use only the adapter specified in Section 7.3. Using any other adapter could damage the computer and will invalidate your warranty. Please also read the precautionary information regarding adapter use in Section 7.2. 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.

Turn the computer on by pressing **GO/STOP**, and a beep will signal that the game is ready to play. If the computer fails to respond (static discharge may cause it to lock up), use a paper clip or 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.

Tip: To conserve energy and extend battery life, turn on the Auto Power Down option (see Section 5.1)!

1.2 Ready to Play? Here's How to Move!

Okay, now it's time to start a game! It's so easy—just follow these steps:

- a. Press **GO/STOP** to turn the computer on, if you haven't already done so.
- b. Press **NEW GAME** to reset the computer for a new game of chess. Set up the pieces in their starting positions, with the White pieces nearest to you, as shown in the *Quick Start*.
- c. To make a move, lightly press down on the piece you want to move until you hear a beep and two board lights turn on to indicate that square. The sensory board will recognize your piece automatically. Don't believe it? Just look at the display window, which is suddenly full of information—it shows your piece, along with the piece color and the square you just pressed!
- d. Take that piece and gently press it down on the square to which you are moving. You'll hear a second beep as the computer confirms your move. That's it—you've just made your first full move of the game! Next, it's the computer's turn.

You'll notice that the computer often moves instantly at the beginning of a game, instead of taking time to think. This is because it is playing from memory, using a built-in "book" of opening moves (for more information, see Section 2.7).

1.3 Now It's the Computer's Turn

When the computer moves, it beeps and turns on two board lights indicating the square of the piece it wants to move. It also shows its full move in the display window. Check it out—you'll see the **from** and **to** squares of the

computer's move, along with the color and type of piece it is moving. Press the indicated piece down on the **from** square until you hear a beep. Move that same piece to the indicated **to** square and press it down to complete the computer's move. And it's your turn again...

1.4 Change Your Mind? Take Back!

When you're playing chess against this computer, nothing is "set in stone"—you can change your mind or decide to play a different move whenever you want! When it's your turn to move, simply press **TAKE BACK**. The display shows the move to be taken back, and the **to** square of that move is also indicated by board lights. Press the piece down gently on the indicated square, and the computer shows you where that piece came **from**. Press the piece down on the **from** square to complete the take-back. Repeat this as often as you'd like, taking back up to 30 individual moves (or 15 moves for each side). To continue playing at any point, just make another move on the board!

After taking back a capture or/and pawn promotion, the computer will make sure your board is still set up correctly by reminding you to put the captured piece or/and pawn back on the board respectively! It does this by displaying the piece symbol and its location, and turning on the board lights for that square. Put the indicated piece back on the board and press that square to complete the take-back.

1.5 Game Over? Why Not Play Again!

Whenever you finish a game (or if you give up on your current game), it's easy to start over again! Reset the computer by pressing **NEW GAME**, and a New Game tone tells you that the computer is ready. The same playing level will be in effect, but you can change it if you'd like, as explained in Section 3.

*Note that pressing the **ENTER** and **CLEAR** keys together will also reset the computer for a new game.*

IMPORTANT: Resetting the computer for a new game clears your current game from the computer's memory—be careful not to press the **NEW GAME** key by mistake!

1.6 Too Easy/Hard? Change the Level!

When you first turn your computer on, it's automatically set to Normal Playing Level D1 (five seconds a move). However, you have 64 different levels to choose from—you'll want to try them all out! For descriptions of the playing levels and how to change levels, see Section 3.

2. MORE FEATURES TO EXPLORE

2.1 Whose Move? 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 shows that it is now White's turn to move. You can tell at a glance if the computer is currently thinking, and which side is to move!

2.2 Special Chess Moves

Captures: To capture, press down on the piece you want to move, remove the captured piece from the board, and press your piece down on the square of the captured piece. Captures are displayed as in E5×F5.

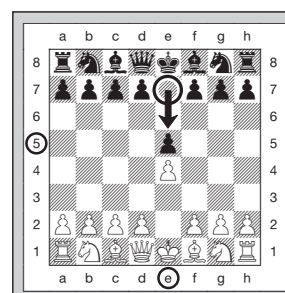
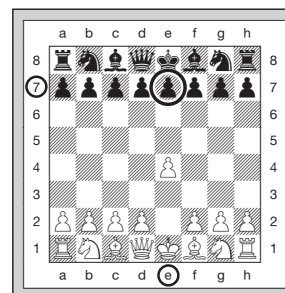
En Passant Captures: In this type of capture, the computer reminds you to remove the captured pawn by using two board lights to indicate that square. You must press down on the captured pawn before removing it from the board.

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 uses board lights to remind you to move the Rook. Press down on the Rook's **from** and **to** squares to complete the move. Note that Kingside castling is displayed as ♖-♗, and Queenside castling as ♖-♘.

MAKING THE COMPUTER'S MOVE: AN EXAMPLE!



After the computer display its moves, it's up to you to make its move on the board! Here, the display indicates the computer wants to move its Black pawn (♟) from E7 to E5. Pick up the E7 pawn (indicated by the board lights) and press it down lightly on Square E7. The board lights now point to Square E5. Press the pawn down on Square E5 to complete the computer's move. Now it's your turn again!



Pawn Promotions: When you promote a pawn, first make your move as usual, pressing your pawn down on its **from** and **to** squares. Next, press the Piece Symbol Key for your desired promotion piece (♙, ♚, ♛, or ♜). The computer recognizes your new piece immediately, displays it briefly, and then begins thinking about its next move. Remember to change your piece on the board! **When the computer promotes a pawn**, the display shows both the pawn and the promoted piece. 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 try to make one, you'll hear a low double beep, and the board lights and display will show the square the piece came **from**. Either move that same piece to another square, or press the piece back down on its original **from** square and move a different piece.

If you don't make the computer's move correctly, you'll also get an error message. This means you are either moving the wrong piece, or moving the computer's piece to the wrong square. If the computer wants to move its pawn from D7 to D5, for example, and you press down on D7 and then D6, the display shows E7 : d5 briefly, pointing out your error. The display then returns to showing the move again (d7-d5), and the computer expects you to press down on D5 to complete its move.

If you press down on a piece and the **from** square is displayed, but you decide not to make that move, simply press down on that same square again to cancel. Then make another move. 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 first displays its move as usual. After the move is made, ♔♚ flashes in the display for a few seconds, along with the checking move. The display then goes back to showing the clock.

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., ♔ ♖2 for a mate in two moves). The display then goes

back to showing the clock.

When a game ends in checkmate, the display flashes **MATE** (along with the mating move) for a short 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. After a draw has occurred, the display flashes **END** (along with the drawing move or with the clock display) for a brief time after the move has been made. The display then goes back to showing the clock.

2.5 Interrupting the Computer's Search

Think the computer is taking too long to move? You can interrupt it any time! Simply press **ENTER** while the computer is thinking, and it will stop and play the best move it has found so far. This feature can be handy on the higher levels, where the computer can take a long time to move, and on the Infinite Level, where the computer thinks indefinitely unless you stop it.

*On the Mate Search Levels, pressing **ENTER** won't force the computer to make a move. Instead, the computer will display — — — — to indicate that it was interrupted before it found a mate. To continue play, switch to another level.*

2.6 Changing Sides with the Computer

To change sides with the computer, simply press **ENTER** when it's your turn—and the computer will make the next move for your side. Change sides as often as you wish!

Want the computer to play the first move for White at the start of a new game? Press **NEW GAME**; then press **ENTER**!

Want to watch the computer play chess against itself? Press **ENTER** after each move—watch as it plays for both sides of the board, one move after another. Study its strategies, and you might improve your own game!

2.7 Built-In Openings

At the beginning of a game, the computer will often move instantly on many levels. This is because it is playing from memory, using its own built-in "book" of opening chess moves. This book contains most major openings and many positions from grandmaster play. If the current board position is in its book, the computer plays a response to that position automatically, instead of having to think about the move!

A special feature of this computer's opening book is its ability to handle *transpositions*. A transposition occurs when a position reached by a certain set of moves can also be reached when those same moves occur in a different order. The computer's integrated Automatic Transposition Manager handles these cases with ease!

Also included is a unique user-selectable book feature, which lets you choose from different types of opening books, or even turn the book off, if desired. For complete details, see Section 5.2.

2.8 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 taking for your move to think ahead and plan its own strategies. It tries to guess the move you are likely to make, and then calculates its responses for that particular move while you are still thinking. If the computer has guessed right, there's no reason for it to keep on calculating—it immediately plays the move it has already found!

To disable this feature, turn on the Easy Mode option, as described in Section 5.2.

2.9 Game Memory

You may interrupt a game at any time by pressing **GO/STOP**. Play is then suspended, and the computer stores your current game (up to 30 individual moves). When you switch

NEED HELP CHOOSING A LEVEL? SOME TIPS FOR YOU!

- **Are you a beginning player?** Start out with the Beginner Levels or lower Training Levels. These levels restrict the computer's search depth, resulting in weaker play and giving you the chance to learn about the game and perhaps even win! For even more of a shot at winning, combine one of these levels with the Easy Mode option (Section 5.2), so the computer can't think on your time!
- **Are you an intermediate or more advanced player?** Try the Normal, Training, or Tournament Levels. The Normal Levels range from easy all the way up to a difficult 10-minute response time, and the Tournament Levels are extremely challenging. The Training Levels allow you to set your desired search depth—as you conquer each level, go on to the next! And don't forget to try the Blitz Levels for some fast and exciting games of Speed Chess!
- **Want to experiment?** Use the Mate Search 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. Choose the Infinite Level to have the computer analyze complicated positions for hours or even days!

back on again, you can continue right where you left off! To preserve the memory in case the unit is unplugged, keep batteries installed even when using an adapter.

3. THE PLAYING LEVELS

Your chess computer offers 64 different levels of play! When you set the level, keep in mind that when the computer has more time to think about its moves, it becomes stronger and plays better—just like a human chess player! For an overview of all the levels, refer to the Level Chart. The levels are also described individually in this section.

Setting a Playing Level

See "USE THIS CHART TO SELECT A PLAYING LEVEL!" for an illustrated look at how to set a level and a chart showing all the levels at a glance.

There are two methods of setting levels—by using the game keys or pressing the board squares. Whichever method you use, always press **LEVEL** first to enter Level Mode, and the computer will display the current playing level. When you enter Level Mode the first time, the computer is set on Normal Playing Level D1 (with an average response time of five seconds a move), and the display shows **L0:05**.

- **To select a level by using game keys:** After entering Level Mode by pressing **LEVEL**, change levels one at a time by using the **BLACK/→** and **WHITE/←** keys. As a shortcut, press **LEVEL** repeatedly to skip over eight levels at a time. When the display shows your desired level, press **ENTER** to enter your new level into the computer and exit Level Mode.
- **To select a level by pressing board squares:** As indicated in the Level Chart, each of the 64 squares corresponds to one level. After entering Level Mode by pressing **LEVEL**, press a square to activate a level, using the chart as a guide. When you press down on the desired square and that level shows in the display, press **ENTER** to enter your new level into the computer and exit Level Mode. *When making your selection via the board squares, pressing **CLEAR** has the same effect as press-*

USE THIS CHART TO SELECT A PLAYING LEVEL!

1. Press  to enter Level Mode.

2. Next, select your level, using the chart below. There are two ways to do this.

- Cycle through the levels until your level is displayed:
Press **BLACK/→** to **increase →** levels by **one**.
Press **WHITE/←** to **decrease ←** levels by **one**.
Press **LEVEL** to **increase →** levels by **eight**.
- **OR**, simply locate your level square and press it to display that level!

TRAINING LEVELS	{	9 ply search PLY: 9 A8	10 ply search PLY: 10 B8	11 ply search PLY: 11 C8	12 ply search PLY: 12 D8	13 ply search PLY: 13 E8	14 ply search PLY: 14 F8	15 ply search PLY: 15 G8	16 ply search PLY: 16 H8
		1 ply search PLY: 1 A7	2 ply search PLY: 2 B7	3 ply search PLY: 3 C7	4 ply search PLY: 4 D7	5 ply search PLY: 5 E7	6 ply search PLY: 6 F7	7 ply search PLY: 7 G7	8 ply search PLY: 8 H7
MATE SEARCH LEVELS	{	Mate in 1 move T in: 1 A6	Mate in 2 moves T in: 2 B6	Mate in 3 moves T in: 3 C6	Mate in 4 moves T in: 4 D6	Mate in 5 moves T in: 5 E6	Mate in 6 moves T in: 6 F6	Mate in 7 moves T in: 7 G6	Mate in 8 moves T in: 8 H6
BEGINNER LEVELS	{	1 sec. per move BEG: 1 A5	2 sec. per move BEG: 2 B5	3 sec. per move BEG: 3 C5	4 sec. per move BEG: 4 D5	5 sec. per move BEG: 5 E5	6 sec. per move BEG: 6 F5	7 sec. per move BEG: 7 G5	8 sec. per move BEG: 8 H5
BLITZ LEVELS	{	5 min. per game BL: 5 A4	10 min. per game BL: 10 B4	15 min. per game BL: 15 C4	20 min. per game BL: 20 D4	30 min. per game BL: 30 E4	45 min. per game BL: 45 F4	60 min. per game BL: 60 G4	90 min. per game BL: 90 H4
TOURNAMENT LEVELS	{	40 moves in 1:30 tr: 40 1:30:00 A3	35 moves in 1:45 tr: 35 1:45:00 B3	40 moves in 1:45 tr: 40 1:45:00 C3	35 moves in 1:30 tr: 35 1:30:00 D3	40 moves in 2:00 tr: 40 2:00:00 E3	45 moves in 2:30 tr: 45 2:30:00 F3	50 moves in 2:00 tr: 50 2:00:00 G3	40 moves in 3:00 tr: 40 3:00:00 H3
NORMAL PLAYING LEVELS + INFINITE LEVEL	{	45 sec. per move LO: 45 A2	1 min. per move LO: 1:00 B2	1.5 min. per move LO: 1:30 C2	2 min. per move LO: 2:00 D2	3 min. per move LO: 3:00 E2	5 min. per move LO: 5:00 F2	10 min. per move LO: 10:00 G2	Infinite Level 9:99:99 H2
		1 sec. per move LO: 0:01 A1	2 sec. per move LO: 0:02 B1	3 sec. per move LO: 0:03 C1	5 sec. per move LO: 0:05 D1	10 sec. per move LO: 0:10 E1	15 sec. per move LO: 0:15 F1	20 sec. per move LO: 0:20 G1	30 sec. per move LO: 0:30 H1

3. Finally, press  to exit Level Mode, using your new level!

For more details, see Section 3.

ing **ENTER**—it enters your level into the computer.

- **To verify the level without changing it:** If you press **LEVEL** to verify the level but you don't want to actually change levels, press **CLEAR**. This returns you to normal play without changing the level or clock settings, even while the computer is thinking.

Some more important points to remember regarding playing levels:

- Changing the level always resets the chess clocks.
- We do not recommend changing levels while the computer is thinking. If you must do this, first press **ENTER** to abort the computer's search, and make its move on the board. Then, take back the computer's move and change the level. Finally, press **ENTER** to make the computer start thinking on the new level.
- If you change the level while the computer is thinking, the clock is reset and the current search is aborted.

- If you press **LEVEL** while the computer is thinking but the level is not changed (if you press **CLEAR** instead of **ENTER**), the computer will also abort its search.

3.1 Normal Playing Levels (Squares A1-G2)

LEVEL	TIME PER MOVE	DISPLAY
A1	1 second	L 0:01
B1	2 seconds	L 0:02
C1	3 seconds	L 0:03
D1	5 seconds	L 0:05
E1	10 seconds	L 0:10
F1	15 seconds	L 0:15
G1	20 seconds	L 0:20
H1	30 seconds	L 0:30
A2	45 seconds	L 0:45
B2	1 minute	L 1:00
C2	1.5 minutes	L 1:30

D2	2 minutes	L 2 : 00
E2	3 minutes	L 3 : 00
F2	5 minutes	L 5 : 00
G2	10 minutes	L 10 : 00

When you choose one of the Normal Playing Levels, you are selecting an average response time for the computer. Note that the times are averaged over a large number of moves. In the opening and endgame, the computer tends to play faster, but in complicated middlegame positions, it may take longer to move.

3.2 Infinite Level (Square H2)

LEVEL	TIME	DISPLAY
H2	No time limit	9 : 99 : 99

On the Infinite Level, the computer will search indefinitely, until it finds a forced mate or forced move; until it has fully searched the position to its maximum depth; or until you stop the search by pressing **ENTER**. If you halt the search, the computer makes the move it currently thinks is best. Try experimenting with this level—set up interesting board positions and let the computer analyze them for you! It will think for hours or even days on end, trying to come up with the best possible move. And don't forget to watch the computer as it thinks—take advantage of the Rotating Display feature described in Section 5.3!

3.3 Tournament Levels (Squares A3-H3)

LEVEL	MOVES/TOTAL TIME	ALTERNATING DISPLAY
A3	40 moves in 1 hr. 30 min.	♠ ♣ 40 1 : 30 : 00
B3	35 moves in 1 hr. 45 min.	♠ ♣ 35 1 : 45 : 00
C3	40 moves in 1 hr. 45 min.	♠ ♣ 40 1 : 45 : 00
D3	35 moves in 1 hr. 30 min.	♠ ♣ 35 1 : 30 : 00
E3	40 moves in 2 hrs.	♠ ♣ 40 2 : 00 : 00
F3	45 moves in 2 hrs 30 min.	♠ ♣ 45 2 : 30 : 00
G3	50 moves in 2 hrs.	♠ ♣ 50 2 : 00 : 00
H3	40 moves in 3 hrs.	♠ ♣ 40 3 : 00 : 00

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 flashes ♠ ♣ along with the elapsed time to show that the game is over. If you wish, you can continue to play even after the time has run out.

If you choose a Tournament Level, you may want to set the chess 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 clock display.

3.4 Blitz Levels (Squares A4-H4)

LEVEL	TIME PER GAME	DISPLAY
A4	5 minutes	♠ ♣ : 5
B4	10 minutes	♠ ♣ : 10
C4	15 minutes	♠ ♣ : 15
D4	20 minutes	♠ ♣ : 20
E4	30 minutes	♠ ♣ : 30
F4	45 minutes	♠ ♣ : 45
G4	60 minutes	♠ ♣ : 60
H4	90 minutes	♠ ♣ : 90

On the Blitz Levels (also called Speed Chess or "Sudden Death" Levels), you set the total time for the whole game. If the game time is exceeded, the computer flashes ♠ ♣ along with the elapsed time to show that the game is over.

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

3.5 Beginner Levels (Squares A5-H5)

LEVEL	TIME PER MOVE	DISPLAY
A5	1 second	♠ ♣ : 1
B5	2 seconds	♠ ♣ : 2
C5	3 seconds	♠ ♣ : 3

D5	4 seconds	♠ ♣ : 4
E5	5 seconds	♠ ♣ : 5
F5	6 seconds	♠ ♣ : 6
G5	7 seconds	♠ ♣ : 7
H5	8 seconds	♠ ♣ : 8

Are you a novice or beginning chess player? If so, these levels are especially for you! Here, the computer restricts its search so that it deliberately plays weaker and gives you a better chance to win! The levels start out easy and gradually get a little harder—as you beat each one, go on to the next!

3.6 Mate Search Levels (Squares A6-H6)

LEVEL	PROBLEM	DISPLAY
A6	Mate in 1	♠ ♣ : 1
B6	Mate in 2	♠ ♣ : 2
C6	Mate in 3	♠ ♣ : 3
D6	Mate in 4	♠ ♣ : 4
E6	Mate in 5	♠ ♣ : 5
F6	Mate in 6	♠ ♣ : 6
G6	Mate in 7	♠ ♣ : 7
H6	Mate in 8	♠ ♣ : 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 Mate Search Levels. This 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 can't find a mate, it will display a series of dashes (— — — —). To continue play, simply switch to another level.

3.7 Training Levels (Squares A7-H8)

LEVEL	DISPLAY	LEVEL	DISPLAY
A7	PLY : 1	A8	PLY : 9
B7	PLY : 2	B8	PLY : 10
C7	PLY : 3	C8	PLY : 11
D7	PLY : 4	D8	PLY : 12
E7	PLY : 5	E8	PLY : 13
F7	PLY : 6	F8	PLY : 14
G7	PLY : 7	G8	PLY : 15
H7	PLY : 8	H8	PLY : 16

On the Training Levels, the computer's search depth is limited to a certain number of moves, as shown above. As you cycle through the levels, the computer displays PLY : # for each level. A "ply" is an individual move (a move for either side), and "#" is the number representing the search depth. For example, on Level A7, the computer searches to a depth of one ply (PLY : 1), and thus looks ahead only one individual move. On this level, therefore, it will often overlook a mate in one. This produces weaker play, giving beginners a better chance of beating the computer!

4. INFO MODE: WATCH AND LEARN!

Imagine this: You're playing chess against a friend, and it's his move. You'd love to know what move he's thinking about, and you'd really like to get his opinion of the board position. But, of course, you won't ask—because that's just not done! Well, guess what—when you play against this chess computer, you can ask anything you want, and you'll get all the answers! In fact, you can get an incredible amount of information about the computer's thought process. On request, it will show you the move it's thinking of, the line of play it expects after that move, its evaluation of the current board position, how deeply it is searching, and more. As you can imagine, studying this information can help you learn so much more about chess!

Using Info Mode

How do you access all this game information? By using Info Mode at any time! If you do this while the computer is

thinking, you'll see the information displays change as the computer considers different moves and searches deeper!

See **"INFO MODE AT A GLANCE!"** for a chart summarizing all the Info Mode displays.

Game information is divided into four groups, and pressing **INFO** cycles from one group to another. The **BLACK/→** and **WHITE/←** keys can be used to cycle through the displays within each of the groups. Press **CLEAR** to exit Info Mode and go back to showing the normal chess clock.

After learning about Info Mode, take a look at Section 5.3 for a description of the Rotating Display feature. Selecting this feature makes the computer automatically cycle through the requested information in 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 dashes (— — — —).

4.1 Principal Variation

Press **INFO** the first time to get information on the principal variation (the predicted line of play, or the sequence of moves the computer thinks will be made). The first display you will see is the move the computer is currently thinking of making. The principal variation is shown to a maximum depth of four individual moves. Press **BLACK/→** repeatedly to scroll forward through all the moves:

- Move 1 (predicted line of play)
- Move 2 (predicted line of play)
- Move 3 (predicted line of play)
- Move 4 (predicted line of play)

Press **WHITE/←** to scroll backward and see previous displays again. Press **CLEAR** to return to the normal clock display.

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 **INFO** on your turn!

4.2 Search Information

Press **INFO** a second time to get information on the computer's search! Press **BLACK/→** repeatedly to scroll forward through these four displays:

- Evaluation of the current position (based on a pawn being worth 1.0 points; a positive number indicates White is ahead)
- 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 considered
- The search speed, or number of positions (nodes) being searched every second

Press **WHITE/←** to scroll backward and see previous displays again. Press **CLEAR** to return to the normal clock display.

4.3 Chess Clock Information

Press **INFO** a third time for chess clock information. The chess clocks keep track of the time for both sides. Press **BLACK/→** repeatedly to scroll forward through the clock displays:

- Elapsed time since the last move was made
- Total elapsed time for the computer
- Total elapsed time for the player
- Remaining time for the computer (*Blitz/Tournament Levels only*)
- Remaining time for the player (*Blitz/Tournament Levels only*)

Press **WHITE/←** to scroll backward and see previous displays again. Press **CLEAR** to return to the normal clock display.

INFO MODE AT A GLANCE!

For details, see Section 4.

PRINCIPAL VARIATION INFO:



x1 • Move 1 (predicted line of play)



• Move 2 (predicted line of play)



• Move 3 (predicted line of play)

• Move 4 (predicted line of play)

SEARCH INFO:



x2 • Evaluation of current position



• 2 numbers: Search depth + number of moves examined so far



• Current move under consideration

• Number of positions being searched per second

CHESS CLOCK INFO:



x3 • Elapsed time since last move



• Elapsed time for the computer

• Elapsed time for the player



• Remaining time for the computer*

• Remaining time for the player*

*Blitz/Tournament Levels only

MOVE COUNT INFO:



x4 • Number of White moves played so far



• Moves of the current game



The clocks stop whenever you take back a move, check level settings, select options, verify or set up a position, or turn the unit off. In all these cases, however, the times are retained in memory, and the clocks resume as soon as play is continued. Whenever you change levels or press **NEW GAME**, the chess clocks are always reset to 0 : 00 : 00.

4.4 Move Count/Game Moves

Press **INFO** a fourth time to show the move number in the game so far. You can then press **WHITE/←** repeatedly to scroll backward through the moves of your game (up to 30 individual moves).

- Number of White moves played so far

- Moves of the current game

Press **BLACK/→** to go forward through the moves again at any point. Press **CLEAR** to return to the normal clock display.

4.5 Want a Hint? Just Ask!

In case you missed this feature when it was mentioned in Section 4.1, we wanted to point it out again—if you ever need advice on a move, you can always ask the computer for a hint. Simply press **INFO** when it's your turn to move, and the computer will show a suggested move for your side!

5. OPTIONS FOR FUN AND VARIETY

In addition to all the features you've learned about so far,

THE BASICS OF OPTION MODE: HERE'S HOW!

1. Press  repeatedly to select a Mode:

x1 = OPERATION MODE (RUt...)
 x2 = PLAYING MODE (SEl...)
 x3 = ROTATING DISPLAY MODE (rd: l...)
 x4 = back to OPERATION MODE...

2. Next, select your option(s), using the chart below. There are two ways to do this.

- Cycle through the options within that mode:
 Press **BLACK/→** to cycle **→ forward**.
 Press **WHITE/←** to cycle **← backward**.
 When your option is displayed, press **ENTER** to toggle it **on (+)** or **off (-)**.
- **OR**, simply locate your option square and press it to toggle that option **on (+)** or **off (-)**.

	A4	B4	C4	D4	E4	F4	G4	H4
ROTATING DISPLAY OPTIONS	Variation to ply 1 -rd:1 A3	Variation to ply 2 -rd:2 B3	Variation to ply 3 -rd:3 C3	Variation to ply 4 -rd:4 D3	Position Evaluation -rd:5 E3	Depth & Moves -rd:6 F3	Nodes Searched -rd:n G3	Time per Move -rd:t H3
PLAYING MODE OPTIONS	Selective/ Brute Force Search +SEL A2	Easy Mode -EASy B2	Random Play -RAND C2	Passive Book -bE:P D2	Active Book -bE:A E2	Complete Book -bE:P F2	Tournament Book -bE:t G2	Book On/Off +bOOE H2
OPERATION MODE OPTIONS	Auto Answer +RUt A1	Sound with Keypress +Snd B1	Silent Mode -SIL C1	Ticking Clock -tICk D1	Countdown Clock -cdn E1	System Test -tEst F1	Auto Power Down -aPd G1	Play White from Top -tOP H1

3. Finally, press  to exit Option Mode, using your new option(s)!

For more details, see Section 5.

your chess computer also offers many other exciting game options! All of these options are user-selectable at any time during a game. They are described individually in this section, and summarized in the Option Mode Chart.

Selecting Game Options

There are two methods of setting options, as described below—by using the game keys or pressing board squares.

See **"THE BASICS OF OPTION MODE: HERE'S HOW!"** for a chart summarizing how to use Option Mode, and an overview of all the options.

The Game Options are divided into three groups: *Operation Mode*, *Playing Mode*, and *Rotating Display Mode*. Pressing **OPTION** cycles from one group to another. Each group contains eight different options, and the **BLACK/→** and **WHITE/←** keys are used to cycle through the options within each of the groups. For each option, a plus (+) in the display indicates the displayed option is ON, and a minus (-) means the option is OFF. Press **ENTER** to turn each option on or off as it is displayed. Remember that pressing **OPTION** cycles through the three main groups, so you can switch to any of the groups at any time. After you have made all your option selections from any or all of the option groups, press **CLEAR** to return to normal game play.

Another method of selecting game options is by **pressing the option squares**. As shown in the Options Chart, Squares A1-H1, A2-H2, and A3-H3 can be used to turn options on and off. First, press **OPTION** to enter Option Mode; then press the desired square to access any option, using the chart as a guide. You'll see that pressing a square repeatedly turns that option on and off again, with plus (+) for ON and minus (-) for

OFF. Once you have made all your selections, press **CLEAR** to return to your game.

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 a plus, and options which are off are shown with a minus. Whenever you reset the computer for a new game, most of your selected options are carried over to your next game. Some exceptions are Auto Answer, which is automatically set back to ON when you start a new game, and Play White from the Top, which is automatically set back to OFF.

5.1 Operation Mode Options (Squares A1-H1)

These options affect how you operate your computer.

Press OPTION once to select the Operation Mode Options. Then use the **BLACK/→** and **WHITE/←** keys to select options within this group, and press **ENTER** to turn options on (+) or off (-). **Or**, simply press the option squares to turn options on or off.

a. Auto Answer Mode (Square A1)

On: +RUt Off: -RUt

Normally, the computer automatically answers with a countermove whenever you enter a move. If you turn Auto Answer off, however, you can enter any number of moves one by one, without allowing the computer to answer. You'll see that there are many great ways to use this feature!

- Play through master games. Press **ENTER** to see what the computer would do in any position!
- Keep records of your own chess games. When a game is over, play to any position to see how other moves or different strategies might have affected the outcome.

- Study opening lines by entering them manually!
- Play against a friend, with the computer acting as referee. It will monitor your game, checking all moves for legality and keeping track of time for both sides!

When playing against another person, if either side should need help, press **INFO** to see a suggested move. To see what the computer would do in a certain position, press **ENTER** and the computer will make the next move. After it has made its move, Auto Answer remains off, and you may continue your game. Also, note that this option will automatically go back to its default setting of ON whenever you press **NEW GAME** to reset the computer.

b. Sound with Keypress (Square B1)

On: + 5 n d Off: - 5 n d

This option lets you turn off the sound that accompanies each keypress. You will still hear beeps when the computer moves or when an illegal move or keypress is made.

c. Silent Mode (Square C1)

On: + 5 i L Off: - 5 i L

Normally, the computer always beeps when it has found its move. For completely silent operation, turn on Silent Mode.

d. Ticking Clock (Square D1)

On: + t i c c Off: - t i c c

When you turn this option on, you activate a ticking sound that makes the computer's clock sound like a real chess clock! Just imagine—you can create the atmosphere of a championship chess tournament in your own living room!

e. Countdown Clock (Square E1)

On: + c d n Off: - c d n

Turning this option on causes the computer to display the countdown time instead of the elapsed time. *Note that this option is only available in combination with the Tournament and Blitz Levels.*

f. System Test (Square F1)

On: + t e s t Off: - t e s t

The System Test is included primarily as a troubleshooting tool. After activating this option by selecting + t e s t, pressing **BLACK/→** repeatedly will cycle through all the segments in the LCD display and all the board lights, in turn. To exit the test, press **NEW GAME**.

CAUTION: Be careful not to activate this option during a game, since resetting the computer is the only way to exit the test, and your current game will be lost.

g. Auto Power Down (Square G1)

On: + a p d Off: - a p d

The Auto Power Down option is a battery-saving feature! With this option activated, the computer will automatically turn itself off if no keypresses or moves are made for about 15 minutes. To continue the game 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.*

h. Play White from the Top (Square H1)

On: + t o p Off: - t o p

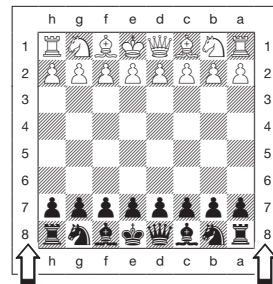
Want to depart from the usual standard and let the computer play the White pieces from the top of the board? Then try out this interesting option! Choose + t o p at the beginning of a new game, and set up the board with the Black pieces closest to you, as shown in the diagram in this section. Then, press **ENTER** to start the game. Watch as the computer makes the first move for White from the top of the board!

See **"PLAYING BLACK FROM THE BOTTOM? HERE'S THE POSITION!"** for a diagram showing the correct piece set-up when using this option.

When the computer plays White from the top, board nota-

PLAYING BLACK FROM THE BOTTOM? HERE'S THE POSITION!

When the computer plays White from the top (Section 5.1, Option H1), be sure to set up the pieces correctly! Notice that the Kings and Queens are positioned differently, and the board notation is reversed.



tion is automatically reversed. Additionally, this option will go back to its default setting of OFF when you start a new game.

5.2 Playing Mode Options (Squares A2-H2)

These options affect how the computer selects its moves.

Press **OPTION** twice to select the **Playing Mode Options**. Then use the **BLACK/→** and **WHITE/←** keys to select options within this group, and press **ENTER** to turn options on (+) or off (-). Or, simply press the option squares to turn options on or off.

a. Selective Search (Square A2)

On: + 5 e l Off: - 5 e l

The program in this chess computer normally uses a *Selective Search algorithm*. This allows the computer to see combinations that would otherwise take much longer to compute. Turning this option off by choosing - 5 e l makes the program switch to a powerful *Brute Force algorithm*. This search method minimizes the risk of an occasional oversight.

Note that the Mate Search Levels always use the Brute Force method.

b. Easy Mode (Square B2)

On: + e a s y Off: - e a s y

Want to win more games against the computer? Try turning on Easy Mode, which prevents the computer from thinking on your time! This weakens all the playing levels without affecting the computer's time controls. Normally, as described in Section 2.8, the computer thinks on your time, using the time you are contemplating your next move to think ahead and plan its strategies. This is part of what makes your computer such a tough opponent! By using Easy Mode to make all the levels weaker, you effectively have many more levels to choose from!

c. Random Play (Square C2)

On: + r a n d Off: - r a n d

Turn this option on for greater variety of play. Instead of selecting one single best move, the computer will then choose one of the best moves to play by consulting its built-in Randomizer!

d. Passive Book (Square D2)

On: + b e : p Off: - b e : p

Selecting the Passive Book option forces the computer to give preference to passive and closed positions when deciding which lines to play. *If this option is selected, the Active Book and Tournament Book options are disabled.*

e. Active Book (Square E2)

On: + b e : a Off: - b e : a

When this option is activated, the computer will give preference to active lines and open positions when deciding which lines to play. *If this option is selected, the Passive Book and Tournament Book options are disabled.*

f. Complete Book (Square F2)

On: +bE:P Off: -bE:P

Turning on the Complete Book option gives the computer the freedom to choose any move from its built-in book of openings, so you'll see a greater variety of opening lines being played. *If this option is selected, the Passive, Active, and Tournament Book options are disabled.*

With this option on, you may see the computer make some questionable moves. This is because its built-in book of openings must contain responses to certain lines of play (even questionable lines), in case they are played. While the computer would not make these moves on its own, it needs to know how to respond to them in the best way. Therefore, when you turn on the Complete Book, the computer could potentially play one of these moves.

g. Tournament Book (Square G2)

On: +bE:E Off: -bE:E

When you turn the Tournament Book option on, the computer is forced to always select the best possible line of play in every opening. While this results in the best chess play, it also narrows down the computer's choice of moves by limiting its available book lines. *If this option is selected, the Active Book and Passive Book options are disabled.*

h. Book On/Off (Square H2)

On: +b00E Off: -b00E

If you ever want to completely lock out the computer's built-in book of openings, set this option to -b00E. When the book is off, the computer is forced to take time to think of its moves from the beginning of the game, rather than making its moves from memory. For details on openings, see Section 2.7. *If you turn the book completely off, the other book options (described previously) are also automatically disabled.*

5.3 Rotating Display Options (Squares A3-H3)

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

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 4 (Info Mode). The Rotating Display feature works hand-in-hand with Info Mode, since it allows you to choose which of the Info Displays you want to see, and then cycles your choices in one-second increments. You may turn on any or all of the Rotating Display options, as desired.

Press **OPTION** three times to select the Rotating Display Options. Then use the **BLACK/→** and **WHITE/←** keys to select the options you want to see rotated in the display. The options are described below and summarized in the Option Mode Chart in this section. Press **ENTER** to turn these options on (+) or off (-). Or, simply press the option squares to turn the options on or off.

If you think the display information is changing too quickly when it rotates, press **INFO** to freeze the display. Successive presses of **INFO** and the **BLACK/→** and **WHITE/←** keys will allow you to cycle through all the displays manually, as described in Section 4. To start the display rotation again, press **OPTION** followed by **CLEAR**. In any event, when the computer starts thinking about its next move, the display automatically starts rotating again.

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 : E = an evaluation of the current position
 - r d : d = the computer's search depth, and the number of moves examined so far in the game
 - 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*

IT'S EASY TO VERIFY PIECES!



1. Press **NEW GAME** to reset the computer, and set up the chess pieces in their starting positions. Display: □ 0 : 00 : 00.



2. Press the **KNIGHT** Key.
Display: □, ♞, b 1 (the first White Knight).
Board lights on: B+1.



3. Press **KNIGHT** again.
Display: □, ♞, G 1 (the second White Knight).
Board lights on: G+1.



4. Press **KNIGHT** again.
Display: ♜, ♞, b 8 (the first Black Knight).
Board lights on: B+8.



5. Press **KNIGHT** again.
Display: ♜, ♞, G 8 (the second Black Knight).
Board lights on: G+8.



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



7. Repeat the above steps for any piece you want to verify! Finally, press **CLEAR** to exit Verify Mode.

For more details, see Section 6.1.

TRY OUT POSITION MODE!



1. Press **NEW GAME** to reset the computer, and set up the chess pieces in their starting positions. Display: □ 0 : 00 : 00.



2. Press **POSITION** to enter Position Mode.
Display: - P 0 5 -.



3. Press the White pawn down on Square E2, and remove it from the board.
Display: □, ♙, - E 2.



4. Press that same pawn down on Square E3 to add it to the board.
Display: □, ♙, + E 3.



5. Press the Black Queen down on Square D8, and remove it from the board.
Display: ♜, ♚, - d 8.



6. Press that same Queen down on Square H5 to add it to the board.
Display: ♜, ♚, + H 5.



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



8. Press **CLEAR** to exit and return to normal game play.

For more details, see Section 6.2.

will show a series of dashes (---).

For complete descriptions of these options and details on exactly how to interpret the displays, see Section 4.

6. VERIFYING/SETTING UP POSITIONS

6.1 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 the piece locations for you!

When it is your turn, press one of the **PIECE SYMBOL KEYS** (♙, ♘, ♞, ♟, ♜, or ♚). The computer shows you where the first piece of that type is located on the board—the display shows the piece symbol, color indicator, and square designation, and board lights also indicate the 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 on the board, only the piece symbol remains in the display.

Want to verify more pieces? Simply repeat the above procedure using the other **PIECE SYMBOL KEYS**, verifying the entire board if desired! Press **CLEAR** to return to normal game play.

6.2 Changing and Setting Up Positions

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

Position Mode is an exciting feature which lets you set up special board positions to play from, or 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 can change or set up a position whenever it is your turn to move. After you have set up your new position, press **CLEAR** to exit Position Mode.

- **To remove a piece from the board**, press the piece down on its square and then remove it. *Notice that the display indicates the piece type and color, along with a minus sign (-) and the square location.*
- **To move a piece from one square to another**, press the piece down on its original square, pick it up, and then press it down on the new square. *As you do this, the display will show a minus sign (-) for the first square, and a plus 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 it does not, press **BLACK/→** or **WHITE/←** to change the color. When the display shows the correct piece type and color, place that piece onto the desired square and press down gently. *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 outlined above.
- **To clear the board**, press **ENTER** while you are in Position Mode. The display will show [] to symbolize an empty chessboard. Press **ENTER** once more to confirm that you do want to clear the board. Then add pieces as described previously. If you decide not to clear the board, press **CLEAR** to cancel. This feature can be handy when you want to set up a position with only a few pieces, where it would be much easier to start out with an empty board!
- **Once you have changed the board position as described above**, make sure 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 **CLEAR**. You will return to normal game play, with your new board position!

Note that any legal 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, the computer will simply beep when you press **CLEAR**, and you will not be allowed to exit Position Mode. Check the position using the **PIECE SYMBOL KEYS**, if necessary, and correct the position (by adding a piece, removing a piece, or moving an incorrectly placed piece). Then press **CLEAR** to exit Position Mode.*

7. TECHNICAL DETAILS

7.1 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.

7.2 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 the 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 7.3. 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 and with EN60742. 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.*

7.3 Technical Specifications

Clock Frequency:	10 MHz
Keys:	17
LCD Display:	48-segments
Batteries:	4 x “AA”/AM3/R6 (1.5V) cells
Power Consumption:	330 mW maximum
Dimensions:	308 x 230 x 29 mm
Weight:	1 kg
AC-DC Adapter:	9V/300mA center-positive (optional)



Please retain this information for future reference.

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

SYMPTOMS	POSSIBLE CAUSES	ACTION TO TAKE
The computer doesn't react, behaves erratically, or "freezes" during a game.	<ul style="list-style-type: none"> Batteries are not installed correctly. Batteries are weak or bad. Static discharge or an electrical disturbance has caused a lock-up. 	<ul style="list-style-type: none"> Reinstall the batteries, making sure to observe the correct polarity. Replace the batteries. Press into the hole marked ACL to reset the computer (see Section 7.1).
The display is difficult to read.	<ul style="list-style-type: none"> Batteries are weak or bad. 	<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"> The Auto Answer 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 automatically if Auto Answer is on (see Section 5.1). To interrupt the computer and force it to make a move, if desired, press ENTER.
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). 	<ul style="list-style-type: none"> Review the chess rules. Verify the position to make sure it is correct (see Section 6.1). To interrupt the computer, press ENTER.
An error message shows when a square is pressed.	<ul style="list-style-type: none"> You have not entered the computer's last move correctly (wrong from or to square). 	<ul style="list-style-type: none"> Check the display, and press the correct square to complete the computer's move.
You cannot exit Position Mode with CLEAR —the computer only beeps.	<ul style="list-style-type: none"> You have set up an illegal position. A King may be in check, you may have too many pawns on the board, etc. 	<ul style="list-style-type: none"> Check your position, and make the necessary changes (see Section 6.2). Then press CLEAR again to exit Position Mode.
The display is showing [----].	<ul style="list-style-type: none"> You are in Position Mode, and have pressed ENTER to clear the board. 	<ul style="list-style-type: none"> To clear the board, press ENTER once more; to cancel, press CLEAR (see Section 6.2).
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. Batteries are running out. 	<ul style="list-style-type: none"> Review the chess rules. Verify the position as described in Section 6.1. Verify the position (see Section 6.1). Replace the batteries with fresh alkalines.
The computer is making instant or irrational moves.	<ul style="list-style-type: none"> The computer may be on one of the lowest Beginner or Training Levels, where it moves quickly and plays weaker than normal because its search depth is limited. Batteries are running out. 	<ul style="list-style-type: none"> Press LEVEL to see which level is selected (see Section 3). Change to another level, if desired. Replace the batteries with fresh alkalines.
The computer is silent.	<ul style="list-style-type: none"> The Silent Mode option may be activated. 	<ul style="list-style-type: none"> Check the option settings (see Section 5.1).
You are using an optional AC-DC adapter, but the computer does not work.	<ul style="list-style-type: none"> Wrong adapter type, incorrect voltage rating, or defective adapter. 	<ul style="list-style-type: none"> Use only the recommended AC-DC adapter, as specified in Section 7.3.