# Chess

TREKKER

INSTRUCTIONS

ENGLISH

IMPORTANT INFORMATION

USE OF CHESS PIECES

1 **If you are using pieces with magnets in the bases and your move does not seem to have registered, press down with the EDGE of the piece.**

Magnets in bases of chess pieces are **NOT** essential to the proper operation of the computer. If a magnet falls out of the base of a piece, continue to use it in the normal way without the magnet and the computer will function correctly.
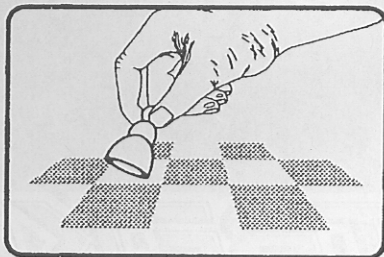
RESET SWITCH

Sometimes computers malfunction due to electrostatic discharge or other electrical disturbances, or when batteries are inserted. If this happens push a thin rod into the RESET hole in the base of the computer and press down for about one second. This resets the computer, clears its memory and returns it to normal operation.
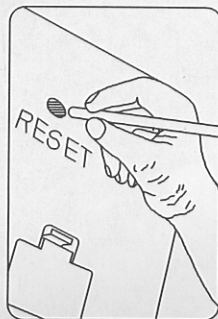
WARNING

The chess pieces supplied with this chess computer may be small enough to be swallowed. Please keep the chess pieces out of the reach of small children.

NOT SUITABLE FOR CHILDREN UNDER AGE 3 YEARS.

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE.

QUICK START

This is a brief introduction to your Chess Computer. To fully understand its operation it is necessary to **READ THE INSTRUCTION MANUAL CAREFULLY.**

CHESS RULES The rules of chess are explained in the "Chess Rules" section of the instruction manual. Your computer knows the rules of chess - **THE COMPUTER WILL NEVER BREAK ANY OF THE RULES,** so if you think the computer has "cheated" check this instruction manual, especially the section on special moves.

STARTING PLAY

INSERT BATTERIES Insert the batteries in the base of the computer as specified by the label near the battery compartment, remembering to ensure that the positive tip of each battery matches up with the + sign in the battery compartment.

SWITCH ON Press the ON key. **IF YOU HAVE JUST INSTALLED NEW BATTERIES AND THE COMPUTER DOES NOT RESPOND, PUSH A THIN OBJECT INTO THE "RESET" HOLE IN THE BASE OF THE COMPUTER AND PRESS DOWN ONCE.**

SET UP THE CHESS PIECES Set up the chess pieces in the initial position with the white pieces nearest to you.
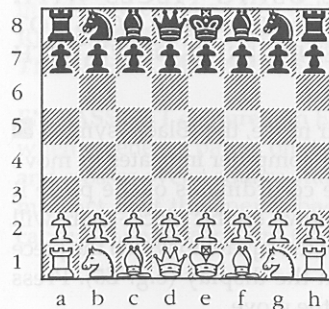
For those of you who are beginners or fairly new to the game of chess, the chess pieces and their symbols are identified in a chart in the instruction manual.

Chess board set up for the start of a game.

START THE GAME The computer indicates squares and functions using an LCD display. Press the NEW GAME key - you hear a small melody and PG (for Play Game) and the "White" symbol □ will appear in the display. The computer is now ready to start the game. (When the NEW GAME Key is pressed, the game in progress is erased from the computer's memory.)

SETTING THE LEVEL OF PLAY The computer has 1020 level settings. When first switched on, Black's thinking time is set to a maximum of 5 seconds per move while White's is unlimited.

Press the LEVEL key to see the current level, and then press the LEVEL key again to change the level. From 5 the display goes to 10, 20 up to 90 seconds per move, then to <u>un</u> for unlimited time per move, and to <u>nn</u> for Multimove mode (section 14), and then to F1, F2, F3, F4, and F5 for the 5 fun levels.

For more information, see section 12 "LEVELS" in the instruction manual.

MAKING MOVES Normally you play the white pieces. Each square is identified by co-ordinates (a letter and a number) which are marked on the chessboard, for example E2. To make your move, press down with the piece you wish to move - there will be a beep and the co-ordinates of the square will show in the display. Move the piece to its new square and press down. **IF YOU ARE USING PIECES WITH MAGNETS IN THE BASES AND THE MOVE DOES NOT APPEAR TO HAVE REGISTERED, PRESS DOWN WITH THE EDGE OF THE PIECE.**

When you have completed your move, the "Black" symbol ■ will show in the display and the computer indicates its move by showing in the display the co-ordinates of the piece it wishes to move (e.g. **E7**). Press down on this piece - there will be a beep and the co-ordinates of the square to which the piece should be moved will show in the display (e.g. **E5**). Press down on the piece to complete the move.

II
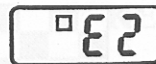
Example of a square shown in LCD display.

CAPTURING A PIECE To make a capture, press down with the piece you want to move. Remove the captured piece and press your piece down on the square of the captured piece.

TO START A NEW GAME Press the NEW GAME key - you hear a small melody and PG and the "White" symbol will appear in the display. You may now proceed to play the new game.

HINT Press the HINT key when it is your turn to move to get a piece of advice on what to move. Press the HINT key while the computer is analyzing to see the move that the computer is thinking of making. Follow the procedure shown in section 17 of the instruction book.

TO VERIFY THE POSITIONS OF THE PIECES You may wish to check the position of the pieces on the chess board, for example if you accidentally knock a piece over. Press one of the six piece keys to see where the pieces of that type are located. Follow the procedure explained in section 19 in this manual.

SPECIAL MOVES Sometimes beginners or inexperienced players do not understand some of the special moves - in particular EN PASSANT captures and CASTLING. These moves are explained in detail in section 7 in this manual. **REMEMBER THAT THE COMPUTER MAY ALSO MAKE THESE SPECIAL MOVES.**

EN PASSANT captures An EN PASSANT capture is possible when an enemy pawn, on its first move, moves two squares and crosses over a square attacked by your pawn. Your pawn may act as if the enemy had moved only one square and capture it en passant, **but ONLY ON YOUR NEXT MOVE.**

III
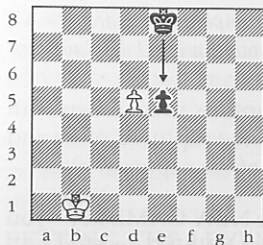
Black advances two squares : E7 to E5.
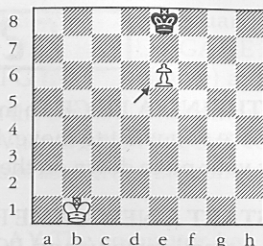
White captures En Passant by moving his pawn from D5 to E6.

CASTLING allows the king to be moved to a safer position near a corner and at the same time brings the rook into play. This is done by moving the king two squares **(in either direction, left or right)** towards a corner and the rook in that corner jumps over the king onto the square next to it. For the conditions in which castling is allowed, read the section on CASTLING in section 2 (Chess Rules).
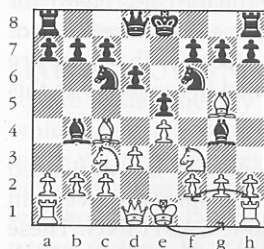
Before King-side castling
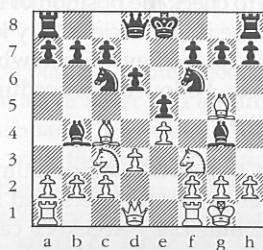
After King-side castling

SWITCH OFF AND SAVE THE POSITION When you want to stop playing, press the OFF/SAVE key. The computer switches off and remembers the position. To resume play, press the ON key.
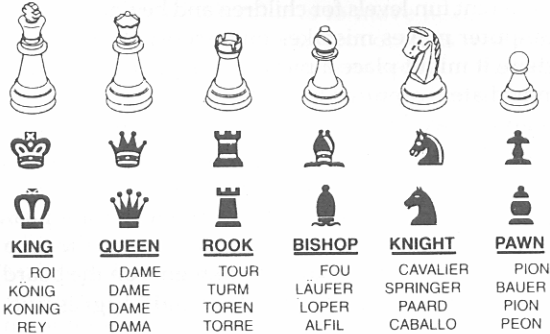
WHEN TO REPLACE BATTERIES If the computer appears to act abnormally or will not switch on, even after the RESET switch has been used, the batteries probably need replacing.
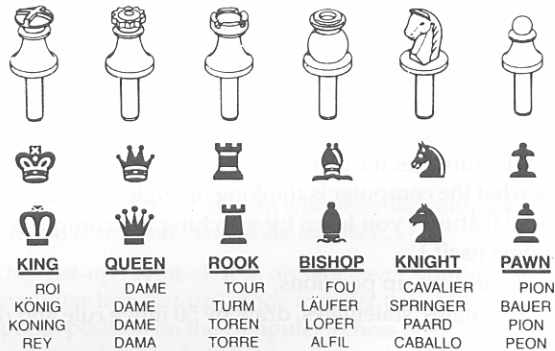
IV

KEYS

ON	Press the ON key to switch on the computer. The game is resumed from the position where the OFF/SAVE key was pressed.
OFF/SAVE	Press to switch the computer off while saving the current game position.
NEW GAME	Press the NEW GAME key to start a new game.
MOVE	Press the MOVE key to make the computer play the next move. At the start of the game, press MOVE if you want the computer to play White.
TAKE BACK	Press TAKE BACK after the computer has moved, if you want to take back its move and your last move.
LEVEL	Press the LEVEL key to see the computer's current maximum thinking time for each move. Then press the LEVEL key again to change the maximum thinking time or to select one of the 5 fun levels.
	When the computer's maximum time has been set, press the WHITE/BLACK key to see your current maximum time and then use the LEVEL key to change it.
WHITE/ BLACK	Press the WHITE/BLACK key to select the color of a piece being set up. (See also "LEVEL".)
SOUND	Press SOUND to switch the sound on or off.
SET-UP POSITION	Press SET-UP POSITION to enter "set-up" mode, allowing you to change or enter a position.
HINT	Press HINT to get a hint on what to move. While the computer is analyzing, press HINT to see the move that the computer is thinking of making.
PIECE KEY	These are the keys identified by the chess piece symbols. During the game, press one of the piece keys to see where the pieces of that type are located.
	Press the appropriate piece key in "set-up" mode before putting that piece on its chosen square.
	Press LEVEL and then the KING/STYLE key to see the computer's current playing style then press the KING/STYLE key again to change the style.
TEACHING MODE	After pressing NEW GAME, press the pawn, knight, bishop, rook or queen key if you want to play a game with limited material (teaching mode).

V

CHESS PIECES & SYMBOLS
TABLE TOP MODELS

KING	QUEEN	ROOK	BISHOP	KNIGHT	PAWN
ROI	DAME	TOUR	FOU	CAVALIER	PION
KÖNIG	DAME	TURM	LÄUFER	SPRINGER	BAUER
KONING	DAME	TOREN	LOPER	PAARD	PION
REY	DAMA	TORRE	ALFIL	CABALLO	PEON

CHESS PIECES & SYMBOLS
PORTABLE MODELS

KING	QUEEN	ROOK	BISHOP	KNIGHT	PAWN
ROI	DAME	TOUR	FOU	CAVALIER	PION
KÖNIG	DAME	TURM	LÄUFER	SPRINGER	BAUER
KONING	DAME	TOREN	LOPER	PAARD	PION
REY	DAMA	TORRE	ALFIL	CABALLO	PEON

CONTENTS

1   WHAT IS A CHESS AND CHECKERS COMPUTER?

A chess and checkers computer is a traditional board with real chess and checker pieces and electronic circuits which respond to the position of the pieces on the board. An important benefit is that you can play a game of chess or checkers against your computer when a human opponent is not available. You can do this at any time, and even switch off in the middle of a game and start again later, because the computer will remember exactly where all the pieces are even when it is switched off.

If you are a beginner at chess, the computer's advanced teaching mode will help you to learn the game, to learn about all the chess pieces and how they move.

Finally, do not think that you have no chance against the computer. It has many levels of skill and if you start off by playing on the lowest level you should find that as you get used to playing the computer, you will learn more about the game and have a good chance of winning. As you improve and want a more challenging game, you simply increase the level of skill.

Your computer is an ideal opponent. It is ready to play you at any time, as often as you like, at whatever level of skill you choose.

A knowledge of chess would be useful to fully understand this section of these operating instructions. The chess diagrams in this instruction manual use symbols for the chess pieces:

Pawns	♙	♟	♟
Knights	♘	♞	♞
Bishops	♗	♝	♝
Rooks	♖	♜	♜
Queens	♕	♛	♛
Kings	♔	♚	♚

2   CHESS RULES
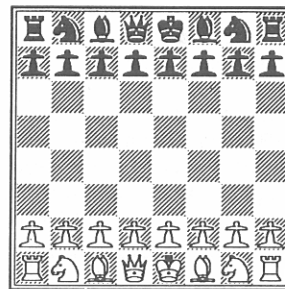
Chess is a game for two players which is played on an 8 x 8 board. At the start of the game the chess board is placed so that there is a white square at each player's bottom, right hand corner.

Each player starts with an army of 16 pieces. We call the two players White (the player who is moving the white pieces) and Black (the player who is moving the black pieces). White always moves first and then the players move alternately.

WINNING A GAME

The object of the game is to "**checkmate**" your opponent's king. This means that whatever move your opponent plays you will still be attacking his king.

A move which attacks the enemy king it is called a "check" and you may never make a move which leaves your king in check. In friendly games a player will usually say "check" when he makes a move that gives check.

Checkmate is a move which gives check and to which there is no reply that gets the opponent out of check. **A move which gives checkmate wins the game at once!**

DRAWING A GAME

Sometimes, even though your king is *not* already in check, any move you make with any of your pieces would *put* your king in check. This situation is called "**stalemate**" and when it occurs the game ends immediately in a draw.

A game can be drawn by agreement between the players; or if both players make 50 successive moves without moving a pawn or capturing an enemy piece; or if the same position occurs 3 times with the same player to move each time (for example, if the players move the same pieces back and forth 3 times).
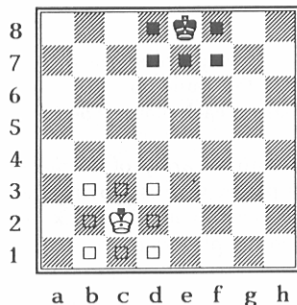
THE KING AND HOW IT MOVES

The king is the most important piece in chess and must be guarded with great care. It moves around slowly, one square at a time in any direction. It may not move to a square which is attacked by an enemy piece and it may not move to a square occupied by one of its own pieces.

In this position: White's king can move to any of the squares marked □ and Black's king to any of the squares marked ■.

Like most other pieces, the king captures by moving in the same way as when it makes an ordinary move. So the king may capture any enemy piece if the king would legally be able to move to that same square if the square was empty.
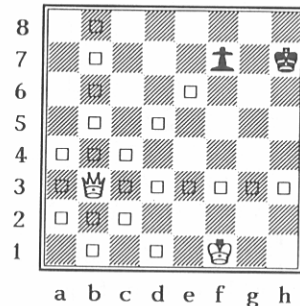
THE QUEEN AND HOW IT MOVES

The queen is the most powerful piece on the chessboard because it can move across any number of empty squares at a time in any direction: horizontally, vertically or diagonally, and it can capture an enemy piece when the queen arrives on its new square. Here White's queen can move to any of the squares marked □, or it can capture the black pawn.
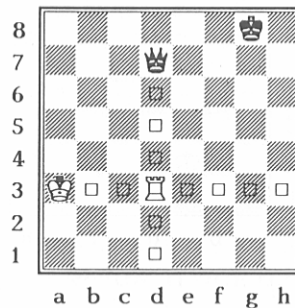
THE ROOK AND HOW IT MOVES

The rook is the second most powerful piece. It can move or capture in a horizontal or vertical direction, as far as it can see without obstruction by another piece. Here the white rook can move to any square marked □ or it can capture the black queen.
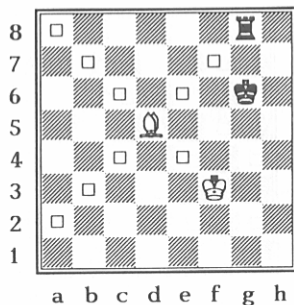
THE BISHOP AND HOW IT MOVES

The bishop is less powerful than the rook because it moves diagonally and is restricted to squares of only one color during the whole game. Bishops can move or capture as far as they can see without obstruction by another piece. Here White's bishop can move to any square marked □ or it can capture the black rook.
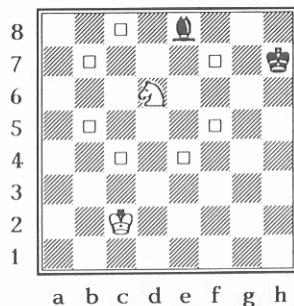
THE KNIGHT AND HOW IT MOVES

The knight is the only piece which may jump over an occupied square. The knight's move consists of two parts, like a letter L. First, it moves two squares in a horizontal or vertical direction; then it moves or makes a capture one square at right angles to the first part of its move. Here White's knight can move to any square marked □, or it can capture the black bishop.
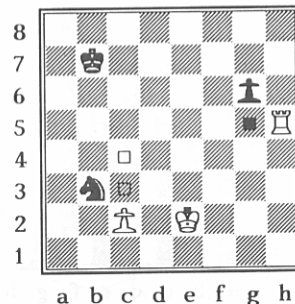
THE PAWN AND HOW IT MOVES

The pawns are the least valuable of all the pieces on the board, partly because they can never move backwards. From their starting squares each of the pawns may be advanced one square or two, at the player's choice, but after a pawn has made *its* first move it may only advance one square at a time. Any other pawn which has not yet moved may still advance two squares on its first move if the player so wishes.

Another unusual thing about the pawn is that it does not capture in the same way that it moves. Pawns move vertically forwards, one or two squares, but they capture diagonally (one square only, even on their first move). Here the White pawn may move to either of the squares marked □, or capture the black knight. The black pawn may move to the square marked ■ or it may capture the white rook.

PAWN PROMOTION

Although a pawn is the most lowly of pieces, if it advances all the way to the far side of the board it is immediately promoted, as part of the same move, into a queen, rook, bishop or knight, whichever its owner chooses. Since a queen is the most powerful piece it is nearly always chosen as the promotion piece.
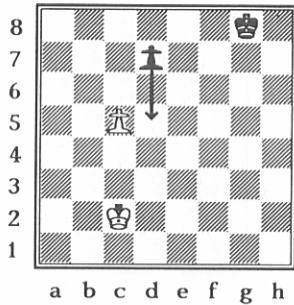
EN PASSANT CAPTURES

In this position, if Black advances his pawn two squares to the square d5, the white pawn may make a special type of capture called an "*en passant*" capture ("*en passant*" is French for "in passing"). To make the *en passant* capture the white pawn moves to the square d6 and White captures the black pawn, taking it off the board.

An *en passant* capture may only be made as the reply move to a double pawn move, and only by a pawn which is side-by-side with the pawn which has just made the double pawn move.

CASTLING

Castling is another special move. It allows the king to be moved to a safer part of the board, nearer to the corner, and at the same time it brings a rook into play. In one move, the king slides two squares towards a corner square and the rook in that corner jumps over the king and lands next to it. Each player may "castle" once, at most, during a game.

In the next position : White may castle by moving his king to either of the squares marked by the arrows and then jumping the nearby rook over it. Black has already made the castling move - his king has moved two squares sideways and his rook jumped over it.
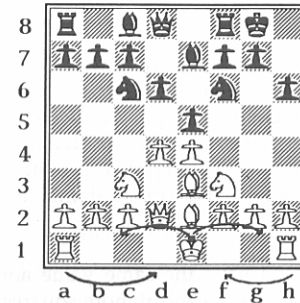
There are a number of restrictions that apply to castling and it is important that you learn all of them:

(1)   You may not castle if your king has already moved.

(2)   You may not castle with a rook which has already moved.

(3)   You may not castle if you are "in check".

(4)   You may not castle if your king would land on a square where it is "in check".

(5)   You may not castle if the square that your king crosses over is attacked by an enemy piece.

(6)   You may only castle if the squares between your king and rook are all vacant.

HINTS FOR BEGINNERS

The most obvious way to work towards victory is to try to increase your own fighting force relative to that of your opponent. We call this "winning material". It is usually a good idea to capture any of your opponent's pieces that are not defended or insufficiently defended. The bigger your material advantage, the easier it will normally be for you to dominate the game and to force a win.

The pieces do not all have the same value and power because some are more mobile and control more squares than others. The following table of material values will serve you as a useful guide.

PAWN	= 1 point
KNIGHT	= 3
BISHOP	= 3
ROOK	= 5
QUEEN	= 9
KING	= beyond material value

The most common mistake that beginners make is to put a piece on a square where it may simply be captured at once. So every time that you are about to make a move, spend a few seconds to ask yourself:

[i]   Can your opponent safely capture the piece that you are going to move?

[ii]   Did his last move threaten one of your pieces?

[iii]   Has your opponent been careless and made a move which allows you to win material, possibly by capturing the piece he has just moved?

Material is not the only important factor in chess. During the first 10 or so moves of the game,you should try to bring out both of your knights and both bishops so that they are active, and you should try to castle. And finally, try to use your pieces to attack the central squares - the player who controls the center usually has the advantage.

3. INSERTING BATTERIES

Your chess computer operates from batteries (not included). The battery type and number required is specified on the rating plate on the base of the unit.   To insert new batteries:

- Press down on the battery compartment cover latch and remove the cover.

- Place the new batteries in the battery compartment. Make sure that you place them correctly as indicated by the + and - signs.

- Replace the battery compartment cover. You should hear the characteristic New Game melody. If this does not happen, open the battery compartment again and check that all the batteries are placed in the correct direction as indicated by the + and - signs.

Note : If the computer does not function properly, try to replace the batteries.

Caution : NEVER leave dead or old batteries in the computer. Remove the batteries if you will not use the computer for several days. Leaving old batteries in the computer could damage the computer.

4. STARTING A NEW GAME

Set up the pieces on the chess board in their starting position and turn on the computer by pressing the ON key. Then press the NEW GAME key. You will hear the characteristic New Game melody, and the display will show "PG" (for Play Game) and a white color symbol, indicating that it is white's turn to move. You can always reset the computer at any time by pressing the NEW GAME key.

Note : The computer retains the current position in memory even when it is turned off. If you want to start a new game, you must always press the NEW GAME key after turning the computer ON.

- Place the king on C1 and press the square.

- The computer will remind you to move the rook by showing A1 in the display. Pick up the white rook on A1 and press the square.

- The computer will show D1 in the display. Place the rook on D1 and press the square.

PAWN PROMOTION is performed automatically by the computer:

- Press the FROM square and pick up the pawn.

- Find a queen of the right color among the captured pieces (if there are no queens of the right color among the captured pieces, you can use a rook and place it up-side down instead). Press the TO square and put down the queen on the new square in the usual way.

The computer assumes that you always want to promote to a queen. If you want to promote to a rook, bishop, or knight instead, you can do so by changing the position (see SET-UP POSITION later). The computer itself will always promote to a queen.

8.   ILLEGAL MOVES

If you try to make an illegal or impossible move, or try to do something else which is not possible, you will hear the error signal. Whenever you hear this signal, it means that you have done something wrong, and that your last entry has been ignored.

If you try to make an illegal move, or try to move one of the opponent's pieces, you will hear the error signal, and the display will show "?". You can just continue and make another move instead by pressing the FROM and TO squares.

If you hear the error signal, and the display is showing a square, it means that you must press on this square.

9.   CHECK, MATE AND DRAW ANNOUNCEMENTS

When the computer gives check, it will beep happily and show the CHECK symbol "+" in the display.

If the computer checkmates you, or you checkmate the computer, it will play a small melody, and the display will show either "10" for white victory, or "01" for black victory.

If you stalemate the computer, the display will show "==", indicating that the game is a draw.

If the same position occurs 3 times in a row, the display will show "3=", indicating draw by 3-fold repetition.

If neither player moves a pawn or captures a piece for 50 moves, the display will show "50", indicating that the game is a draw because of the 50 move rule, but you can still continue playing if you want to.

10. OFF/SAVE MODE

When a game is over, you can press the NEW GAME and start a new game, or turn the computer OFF by pressing the OFF/ SAVE key. The computer is not turned completely off, but instead retains the current chess position in its memory while using a minimum of current. This means that you can stop in the middle of a game, and then switch the computer ON again later on and continue the game. This also means that you must always press the NEW GAME key after turning the computer ON, if you want to start a new game.

11. SOUNDS

If you prefer your computer to operate without its audio signals, just press the SOUND key. The sounds can be switched on again by pressing the SOUND key again.

12. LEVELS

The computer has 11 different time settings ranging from 5 seconds per move to unlimited time per move, 5 different fun

levels for children and beginners, and a special Multi-Move mode.

- The time based skill levels gives a range of time settings from 5 seconds per move to 90 seconds per move. The playing strength on these levels ranges from beginner to intermediate. The times are maximum response times, the computer will move sooner if it has already found a move. In the beginning of the game the program will move instantly because it plays moves from the opening library.

- The unlimited time level is a special analysis level which will analyze the position until you terminate the search by pressing the MOVE key (see TERMINATING SEARCH later). This is very useful for analyzing a position or for playing a long game of chess against the computer. You can even let the computer analyze for 24 hours or more per move and play postal chess against the computer. The computer can also solve mate problems on this level up to mate-in-4 (see MATE PROBLEMS later).

- The MULTI MOVE mode is a special mode where two players can play against each other and use the computer as a chessboard with a built-in chess clock (see MULTI-MOVE MODE later).

- The 5 fun levels are special beginner levels for children and beginners, where the computer sometimes makes mistakes on purpose, by overlooking threats or by placing pieces on squares where they can be immediately captured. On fun level 1 the computer will make lots of mistakes, and even sometimes place a piece on a square where it can be immediately captured by a pawn. Playing on this level is a good way to learn how the pieces move. You can also switch to level 1 if you are losing a game and want the computer to make a few mistakes. On fun level 2 the computer will also make lots of mistakes, but it will never place a piece on a square where it can be immediately captured by a pawn. On fun level 3 the computer will make a couple of mistakes per game. On fun level 4 the computer will on average make only one mistake per game, and it will never place the queen on a square where it can be immediately

captured. On fun level 5 the computer will overlook certain forks and mate threats, but it will never place pieces on squares where they can be immediately captured. The computer moves almost instantly on all these levels.

The computer also has 3 different playing styles:

I. In NORMAL playing style the computer will concentrate equally on attacking and defending. In this style the computer will normally play the strongest.

II. In AGGRESSIVE playing style the computer will concentrate on attacking the opponent, and will normally avoid exchanging pieces if possible.

III. In PASSIVE playing style the computer will concentrate on building a solid defensive position, it will make many pawn moves, and it will normally exchange pieces whenever possible.

Normally you set the time limit for the computer only, but if you like you can also set a time for yourself, ranging from 10 seconds per move to 90 seconds per move. Combining the 17 different levels for the computer and the 10 different time settings for you gives a total of 170 different time settings. Combining these time settings with the 6 different starting positions (see PLAYING WITH SELECTED PIECES later) gives a total of 1020 different level combinations.

When you turn on the computer or exchange batteries, the time limit is set to 5 seconds per move for the computer and unlimited time per move for the player, and the playing style is set to NORMAL. To change the level or the playing style, do the following:

I. Press the LEVEL key to enter the level setting mode. The display will show the "+" and "#" symbols together as well as the color and the time setting for the computer (e.g. "5" for 5 seconds per move).

II. Press the LEVEL key again to change the time setting. From 5 seconds per move it goes to 10, 20, 30 seconds per move up to 90 seconds per move. From 90 seconds per

move it goes to unlimited time per move (displayed as "un"), then to MULTI-MOVE mode (displayed as "nn"), then to fun level 1 to 5 (displayed as "F1" to "F5"), and then back to 5 seconds per move.

III. To set the time limit for yourself, press the WHITE/ BLACK key. The display will now show the color and time setting for you (e.g. "un" for unlimited time per move). Press the LEVEL key as described above to set the time limit for yourself.

IV. To set the playing style, press the KING/STYLE key. The display will show the two color symbols (WHITE and BLACK) together as well as the current playing style ("n" for NORMAL playing style, "A" for AGGRESSIVE playing style, and "P" for PASSIVE playing style). Press the KING/ STYLE key again to change the playing style.

V. To exit from the level setting mode, simply make a move by entering the FROM and TO squares, or press the MOVE key and let the computer make a move, or press any key other than the LEVEL or WHITE/BLACK or KING/ STYLE keys.

You can change the level and playing style at any time during the game, when it is your time to move.

13. MATE PROBLEMS

On the unlimited time level the computer can solve mate problems up to mate in 4 moves, if given enough time. To solve a mate problem, do the following:

I. Set up the position on the board (see SET-UP POSITION later).

II. Select the unlimited time level by pressing the LEVEL key repeatedly until the display shows "un" for unlimited time per move.

III. Press the MOVE key, and the computer will start analyzing.

IV. The computer will think until it has found a mate, and then it will play the first move in the mate sequence. You may then make a move for the opponent, and the computer will find the next move in the mate sequence and so on. If there is no mate in the position the computer will analyze indefinitely. The approximate times for solving a mate problem are:

Mate in 1	1 second
Mate in 2	1 minute
Mate in 3	1 hour
Mate in 4	1 day

14. MULTI MOVE MODE

The MULTI MOVE mode is a special mode where the computer will not move itself, so you may enter the moves for both players. You can use this feature to enter a particular opening, or to replay a game to a certain position. You can also use the computer as a normal chess board, playing against another person while the computer checks that all the moves are legal.

To enter the MULTI MOVE mode:

I. Press the LEVEL key to enter the level setting mode as described above, then press the LEVEL key until the display shows "nn".

II. If you want to use the MULTI MOVE mode to play with a friend and use the chess computer as a chess clock, then press the WHITE/BLACK and then press the LEVEL key to set the time limit per move for each player.

III. Play as many moves as you want, pressing the FROM and TO squares for both players.

IV. When you are done, exit the MULTI MOVE mode again by pressing the LEVEL key and set the time limit for you and the computer.

15. CHANGING SIDES

If you press the MOVE key, the computer will make a move. Thus if you want to change sides with the computer, just press the MOVE key. The computer will make a move, and expect you to move for the other side.

If you press the MOVE key again, the computer will move again, and in this way you can even let the computer play the whole game by itself!

If you want to play a game with the black pieces, press the MOVE key from the starting position. The computer will make a move for white, and expect you to play the black pieces.

16. TAKING BACK MOVES

If you press down on one of your pieces, but then decide not to move it after all, just press down on the square a second time. The display will no longer show the square of the piece, and you can make a different move by entering the FROM and TO squares.

If you have already completed a move, and the computer is thinking about its reply, do the following:

I.   Press the TAKE BACK key.

II. The display will show the square of the last moved piece. Press down on the square and pick up the piece.

III. The display will then show the square that the piece came from. Press on this square and move the piece back.

IV. If you take back a capture or an en passant capture, the computer will remind you to replace the captured piece by showing the square that the piece came from. Press down on the square and replace the piece on the board. If you cannot remember the type of captured piece, simply press on the square and then find out the type of the captured piece by checking the position afterwards (see VERIFY POSITION later).

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V.   If you take back a castle, you must first take back the king move and then the rook move, pressing the squares for both the king and the rook.

VI. If you take back a pawn promotion, you must remember to change the queen back to a pawn again when you take back the move. The computer will not remind you about this.

If you want to take back a move, and the computer has already indicated its reply, you must first carry out the computer's move in the normal manner. Then press the TAKE BACK key and take back the computer's move in the same way as described above. Then press the TAKE BACK key once more, and take back your own move.

If you want to take back two moves, press the TAKE BACK key a third time, and take back the computer's second last move. Then press the TAKE BACK key a fourth time, and take back your own second last move. If you try to take back more than 3 moves, the computer will give an error signal. You must instead take back the moves by changing the position (see SET-UP position later).

17. HINT

To get a piece of advice on what to move:

I.   Press the HINT key.

II. The display will show the FROM square of the move, the computer expects you to make. Press down on the square (or simply press the HINT key once more).

III. The display will then show the TO square of the move. Press down on the square (or simply press the HINT key once more). The hint is now complete.

IV. You can now make the suggested move by pressing the FROM and TO squares again, or you can make a different move instead.

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To see what the computer is thinking about while it is analyzing:

I. Press the HINT key while the computer is thinking and the color symbol of the computer is flashing in the display.

II. The display will show the FROM square of the move, the computer at the moment considers the best. Press down on the square (or simply press the HINT key once more).

III. The display will then show the TO square of the move. Press down on the square (or simply press the HINT key once more). The hint is now complete, and the computer starts thinking again.

You now know the move that the computer is probably going to make, and you can start considering you reply instead of just waiting.

18.   TERMINATING SEARCH

If you press the MOVE key while the computer is thinking, it will immediately stop analyzing and play the move it at the moment considers the best (the same move that is shown when you press the HINT key).

19. VERIFY POSITION

In case of confusion, for instance if you accidentally upset the board and the pieces, you can make the computer show you where every piece should be according to its memory. To check where pieces of a certain type are located:

I. Press the corresponding piece key. The display will show the square and color of the first piece of that type.

II. Press the piece key again to see the square and color of the next piece of that type.

III. When there are no more pieces of that type on the board (or if there were no pieces of that type on the board to start with), the computer will exit the verify position mode, and the display will no longer show a square, only the color symbol of the side to move.

20.   ENTER POSITION

To change the position on the board, or to enter a completely new position, do the following:

I. Press the SET-UP POSITION key to enter set-up position mode. The display will show the SET-UP symbol "#".

II. If you want to set up a completely new position, press the TAKE BACK key to clear the board. The display will show "CB" for clear board, indicating that the board has been cleared.

III. To remove pieces from the board, simply press the squares of the pieces one by one. The display will show the color and the piece number of the piece you just removed.

IV. To add pieces to the board, first press the corresponding piece key. The display will show the color and the piece number of the piece you are about to add. If the color is wrong, change the color by pressing the WHITE/BLACK key. Then press on the empty square where you want to add the piece, and the display will show that square. If you want to add more pieces of the same type and color, simply press on the other empty squares as well, one by one.

V. To move a piece from one square to another, first remove the piece from the FROM square by pressing the square. The display will show the color and the piece number of the piece you just removed. Then press on the empty TO square where you want the piece to go. The display will show the new square.

VI. When you are finished changing or entering the position, check that both sides have one king, and that the player to move cannot capture the opponent's king.

VII.Then check that the color symbol of the display shows the side who is next to move in the position. If not, change the color by pressing the WHITE/BLACK key.

VIII. Finally exit the set-up position mode by pressing the SET-

UP POSITION key again. The SET-UP symbol "#" will disappear from the display. You can now either enter a move by pressing the FROM and TO squares, or let the computer move by pressing the MOVE key.

21. SPECIAL TEACHING SYSTEM (PLAYING WITH SELECTED PIECES)

The computer contains a special option, which allows beginners to learn how to move the pieces one piece at the time. After pressing the NEW GAME key, you may:

- Press the PAWN key to start a game with only kings and pawns.

- Press the KNIGHT key to start a game with only kings, knights and pawns.

- Press the BISHOP key to start a game with only kings, bishops and pawns.

- Press the ROOK key to start a game with only kings, rooks and pawns.

- Press the QUEEN key to start a game with only kings, queens and pawns.

22. MAINTENANCE

Your chess computer requires very little maintenance. The following tips will help you care for your computer and make it look new for years:

Keep the computer dry. If it gets wet, wipe it dry immediately.

Use fresh batteries. Do not leave old or dead batteries in the computer. Take out the batteries if you do not plan to use the computer for several days.

Handle the computer carefully. Do not drop it on the floor.

Wipe the computer with a damp cloth occasionally to keep it looking new. Do not use chemicals, cleaning solvents, or strong detergents.

If the computer does not function properly, first try to replace the batteries. Then read the instructions carefully to see if there is something you might have misunderstood. Then bring the computer to your dealer. Do not tamper or modify the electronics of the computer, as this may damage the computer and invalidate the warranty.

PRODUCT SPECIFICATION

MODEL NO.   : 11-009
PRODUCT   : Chess Computer with over 1,000 level settings
                       Battery Operated.
MICRO-
PROCESSOR TYPE   : 8-Bit single chip
ROM SIZE   : 4K x 8
RAM SIZE   : 176 x 8
OSCILLATOR
FREQUENCY   : 4 Mhz
INTERNAL CLOCK
FREQUENCY   : 2 Mhz
DISPLAY TYPE   : 2-DIGIT LCD
FEATURES   : - Sensory chess board
                       - LCD display indicates moves & other information
                       - Position verify / position set-up
                       - Take-back moves
                       - Long term memory
                       - Detects draws by 50 move rule, 3-fold repetition, &
                         stalemate
                       - Pawn promotions, castling & en passant captures
                       - Audible tone to indicate moves
                       - Has teaching feature programmed into computer
BATTERY SUPPLY   : 4.5 VOLT (3xAAA)
                       NOTE : Product should not be operated using
                       rechargeable batteries.
RESET SWITCH   : Resets computer and clears its memory. Reset switch
                       accessible through base of unit. Reset switch is
                       necessary since product can be affected by
                       electrostatic discharge or other electrical
                       disturbances.
                       NOTE : This product is not designed to be immune
                              from the effects of electrostatic discharge,
                              strong electromagnetic radiation or other
                              electrical disturbances since malfunction
                              under such conditions is non-critical. The
                              Reset Switch is included in the design to
                              allow unit to be Reset to normal operation
                              and a new game started in the event of
                              malfunction.

**This product conforms to the EMC-Requirements as
laid down by the Council Directive 89/336/EEC.**
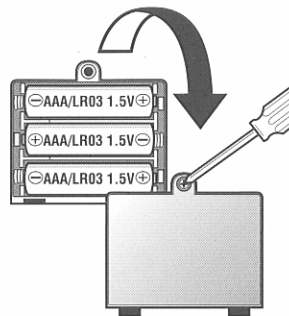
1. Place the game face down on a flat surface and locate the battery compartment on the bottom of the unit.

2. Open the battery compartment door by use a Phillips head screwdriver.

3. Insert three AAA or LR03 size batteries as shown in the illustration below.

4. Close the battery compartment cover.

TO ENSURE PROPER FUNCTION :

- DO NOT MIX OLD AND NEW BATTERIES.

- DO NOT MIX ALKALINE, STANDARD OR RECHARGEABLE BATTERIES.

- BATTERY INSTALLATION SHOULD BE DONE BY AN ADULT.

- NON-RECHARGEABLE BATTERIES ARE NOT TO BE RECHARGED.

- RECHARGEABLE BATTERIES ARE TO BE REMOVED FROM THE TOY BEFORE BEING CHARGED (IF REMOVABLE).

- RECHARGEABLE BATTERIES ARE ONLY TO BE CHARGED UNDER ADULT SUPERVISION (IF REMOVABLE).

- ONLY BATTERIES OF THE SAME OR EQUIVALENT TYPE AS RECOMMENDED ARE TO BE USED.

- BATTERIES ARE TO BE INSERTED WITH THE CORRECT POLARITY.

- EXHAUSTED BATTERIES ARE TO BE REMOVED FROM THE TOY.

- THE SUPPLY TERMINALS ARE NOT TO BE SHORT-CIRCUITED.