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TIGER®

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Chess

PROTEGE

INSTRUCTIONS

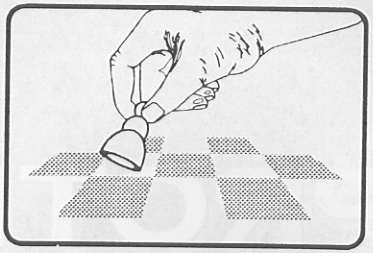
ENGLISH

IMPORTANT INFORMATION

USE OF CHESS PIECES

1 **If you are using pieces with magnets in the bases and your move dose 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 - CHESS

This is a brief introduction to your computer. To fully understand its operation it is necessary to READ THIS INSTRUCTION MANUAL CAREFULLY.

CHESS RULES The rules of chess are explained in "Learn Chess", later in this 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.

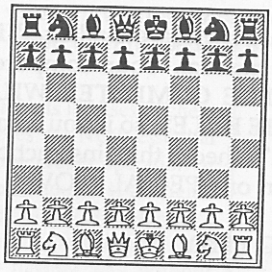
STARTING PLAY

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.

POWER ADAPTER If your computer can work from an AC/DC adapter, check the rating label on the underside of the computer and make sure that any adapter which you use has the correct voltage and polarity. Of course you do not have to use an adapter if you do not want to. You may prefer to use batteries.

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 PIECES Set up the pieces in the initial position with the white pieces nearest to you. Note that if your computer comes with pieces which have pegs in their bases, the pegs should be inserted into the holes in the centre of each square.



Chess board set up for the start of a game.

For those of you who are beginners or fairly new to the game of chess, the chess pieces and their symbols are identified on page 1.

START THE GAME The computer indicates squares and functions using a *Liquid Crystal Display* (LCD). Press the NEW GAME key - When you see **PG** in the display, if you want to play chess press NEW GAME again and you will see the "White" symbol □ appear in the display. You may now start the new game.

SETTING THE LEVEL OF PLAY (Read section 14 for detailed explanation.) The level of play (in chess) is set by stipulating a maximum time per move for White and for Black. When batteries are first inserted or RESET is pressed, White's time is unlimited but Black is restricted to 10 seconds per move.

To change White's time, first press LEVEL to display it. ("**Un**" = "unlimited" time per move.) Then successive re-presses of LEVEL increase the time in intervals of 5 seconds from 0 up to 90 seconds, and then in intervals of 10 seconds up to a maximum of 4 minutes.

To display Black's time limit, press the WHITE/BLACK key while the LCD is showing the time limit for White. Black's time can then be altered by successive presses on the LEVEL key.

When both time limits are set, press any square on the chessboard, and play can proceed.

Note: When White's and Black's limits are both set to 0 seconds, the computer is in "Multi-move" mode (see section 15).

MAKING MOVES We suggest you play your first game with 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. **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.**

Complete your move by pressing the piece down on its new square. Then the "Black" symbol ■ will show in the display and the computer indicates its move by displaying the co-ordinates of the piece it wishes to move (flashing) followed by the co-ordinates of the square to which it is moving (e.g. **E7 E5**). Press down with this piece - there will be a beep and the co-

ordinates of the "from" square stop flashing and those of the "to" square start flashing. Press down with this piece on its new square to complete the move.



Example of move shown in LCD display.

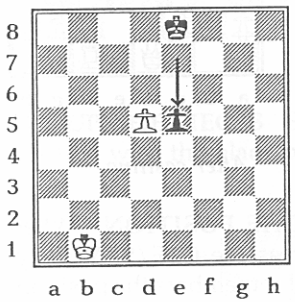
CAPTURING A PIECE To make a capture, press down with the piece you want to move. Remove the captured piece and press your piece down on the square of the captured piece.

TO VERIFY THE POSITIONS OF THE PIECES You may wish to verify the positions of the pieces on the chess board, for example if you accidentally knock over a piece. Follow the procedure explained in **"Verifying the Position"** in the instruction manual (section 17).

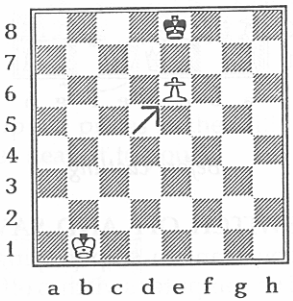
SPECIAL MOVES

Sometimes inexperienced players do not understand the special moves - in particular EN PASSANT and CASTLING - which are explained in detail in this manual. **REMEMBER - 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.

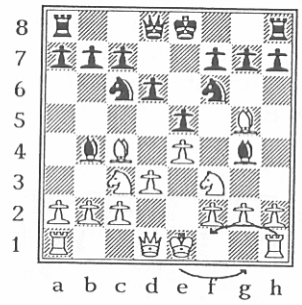


Black advances two squares: E7 to E5.

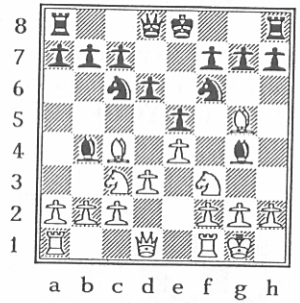


White captures En Passant by moving his pawn from D5 to E6.

CASTLING 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 "Learn Chess" (pages 7-8).



Before castling



After 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.

NOTE: The computer **CANNOT BE SWITCHED OFF** (or a NEW GAME started) **WHILE IT IS STILL THE COMPUTER'S TURN TO MOVE.** Complete the computer's move, then press OFF/SAVE.

WHEN TO REPLACE BATTERIES If the computer appears to act abnormally or will not switch on, even after the RESET has been used, the LCD display may be dim and the batteries probably need replacing.

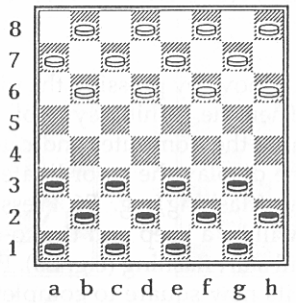
QUICK START
CHECKERS (DRAUGHTS)

This is a brief introduction to how to play Checkers (which is called "Draughts" in some countries) with your computer. To fully understand its operation it is necessary to ***READ THIS INSTRUCTION MANUAL CAREFULLY.***

CHECKERS RULES The rules are explained on pages 59-65. Your computer knows the rules of checkers and **WILL NEVER BREAK ANY OF THE RULES,** so if you think the computer has "cheated" check this manual, especially pages 61-63 on capturing.

STARTING PLAY For information on how to **INSERT BATTERIES,** how to use a **POWER ADAPTER** and how to switch on the computer, see the previous part of this manual ("QUICK START - CHESS").

SET UP THE PIECES Set up the pieces in the initial position with the black pieces nearest to you.



Checkers board set up for the start of a game.

START THE GAME The computer indicates squares and functions using the LCD. Press the NEW GAME key - When you see **PG** in the display, if you want to play checkers press the KING key and you will see the "checkers" symbol ● appear together with "GA". Now press NEW GAME again, and you will see the "Black" symbol ■, because **BLACK MOVES FIRST** in checkers.

SETTING THE LEVEL OF PLAY The computer can play checkers on 16 levels of skill. When you first insert the batteries or press RESET, or switch from playing chess to checkers, it is set to level 1 (weakest). To select a higher level, follow the procedure explained in "Levels of Play" (section 39 of the instruction manual).

MAKING MOVES We suggest you play your first game with the black pieces. Each square is identified by co-ordinates (a letter and a number) which are marked on the checkers board, for example **A3**. 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. **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.**

Complete your move by pressing the piece down on its new square. Then the "White" 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 (flashing) e.g. **F6**. Press down with this piece - there will be a beep and the co-ordinates of the "to" square will start flashing (e.g. **E5**). Press down with this piece on its new square to complete the move.

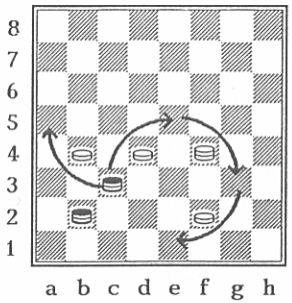


Example of move shown in LCD display.

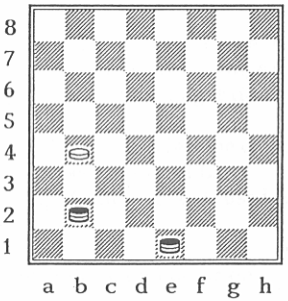
CAPTURING A PIECE To make a capture, press down with the piece you want to move on its "from" and "to" squares. The display will then show the square of the captured piece (flashing), followed by **0**. Press down with the captured piece and then remove it from the board.

CAPTURING MOVES and HOW THE KINGS MOVE Sometimes beginners or inexperienced players do not understand capturing, or how the kings move. These moves are explained in detail in this instruction manual (pages 61-65). **REMEMBER THAT THE COMPUTER MAY ALSO MAKE THESE MOVES.**

In the left hand diagram it is Black's turn to move. You can see that Black's king on c3 has a choice of two ways to capture. His king can capture the white man on b4. Or the king on c3 can make a triple jump, by moving to e5 (capturing the white man on d4), then moving to g3 (capturing the white king on f4), and finally moving to e1 (capturing the white man on f2). Obviously he will prefer to capture three pieces.



Before the capture is made.



After the capture is made.

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.

NOTE: The computer **CANNOT BE SWITCHED OFF** (or a NEW GAME started) **WHILE IT IS STILL THE COMPUTER'S TURN TO MOVE** (or you are still making your own move). Complete the moves for yourself and the computer, then press **OFF/SAVE**.

WHEN TO REPLACE BATTERIES If the computer appears to act abnormally or will not switch on, even after the RESET has been used, the LCD display may be dim and the batteries probably need replacing.

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 and to save the current game position.

NEW GAME Press the NEW GAME key **twice** to start a new game of chess, or press NEW GAME then KING, then NEW GAME again, to start a new game of checkers.

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 in chess or to play Black in checkers. For other functions of this key, see sections 18 ("Setting Up a Position") and 26 ("Famous Games").

TAKE BACK Press TAKE BACK after the computer has moved, to take back its move and your last move.

LEVEL In chess: press the LEVEL key to display the time limit for White. (Then pressing WHITE/BLACK will switch from White's to Black's time limit or vice versa.) Once displayed, the time limit can be altered by re-pressing LEVEL or holding it down.

In checkers: press the LEVEL key to see the computer's playing level. You can then change the level by re-pressing the key or holding it down.

WHITE/ BLACK Press the WHITE/BLACK key to select the colour of a piece being set up. See also LEVEL. (Note that the set up feature is not used in checkers.)

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. This feature is not used in checkers.

VERIFY POSITION Press VERIFY POSITION to enter "verify position" mode, so you can verify where the pieces are.

Piece Keys These are the keys identified by the chess piece symbols. Press the appropriate piece key in set-up mode before putting that piece on its chosen square. These keys also have other functions (RATING, HINT, STYLE, CHECKERS).

DISPLAY



The display shows which game you are playing (chess or checkers), which colour is to move next, which square a piece is being moved from (or to), as well as check and the result of the game. Here you can see all of the symbols and other information which can be shown on the display.

□ This is the "White" symbol. It will be on when you are playing white and it is your turn to move. It will also be on when you are setting up a chess position in the computer and the next piece you set-up is going to be a white piece. And it will be on when you are verifying the squares for the pieces in the computer's memory and the square you are verifying is occupied by a white piece.

This symbol will be flashing when the computer is playing White and it is thinking about its move.

■ This is the "Black" symbol and is used in a similar way to the "White" symbol.

□ The "White" and "Black" symbols are on together when
■ the computer is displaying its style (see section 23; this symbol is not used in checkers).

\+ The "Check" symbol. It is on when you are playing chess and either player (you or the computer) makes a move which puts the other player in check.

\# The "Set-up" symbol. It is on when you are playing chess and you have put the computer into set-up position mode (see section 18).

◎ The "Checkers" symbol. It is on when you have set the computer to play checkers and off when you play chess.

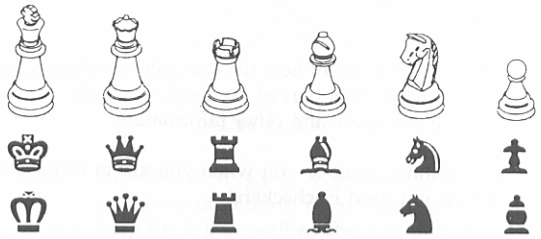
: The capture symbol. It is on, flashing, when the computer is indicating a chess move which is a capture; or when, in checkers, you are in the middle of making a capturing move.

E 2 This is an example of how the computer displays a square on the board. This part of the display can also show the result of the game and other information.

! The "Rating" symbol - on when you are in rating mode. (This is not used in checkers).

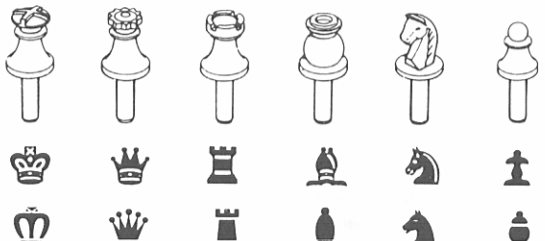
\# The "Set-up" and "Rating" symbols are displayed together
! when the computer is demonstrating a "famous game" of chess (see section 26).

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

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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.

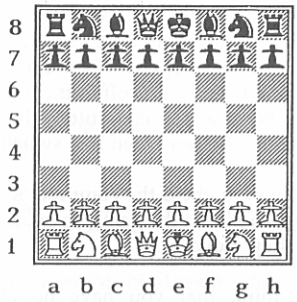
Finally, do not think that you have no chance against the computer. It has many levels of skill and if you start off by playing on the lowest level you should find that as you get used to playing the computer you will learn more about the game and have a good chance of winning. As you improve and want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



2 LEARN CHESS - THE RULES AND HOW THE PIECES MOVE



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.

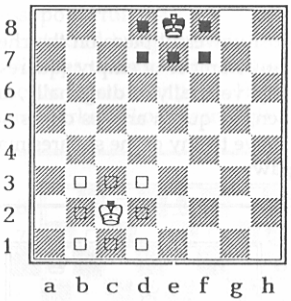
A move which attacks the enemy king it is called a "check" and you may never make a move which leaves your king in check. In friendly games a player will usually say "check" when he makes a move that gives check.

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).

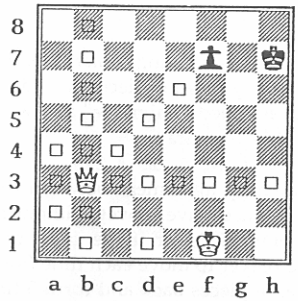


THE KING AND HOW IT MOVES

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.

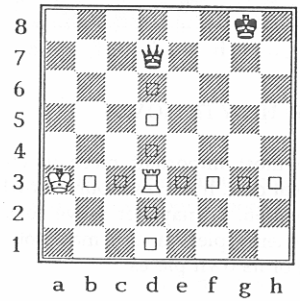
In this position White's king can move to any of the squares marked □ and Black's king to any of the squares marked ■.

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.



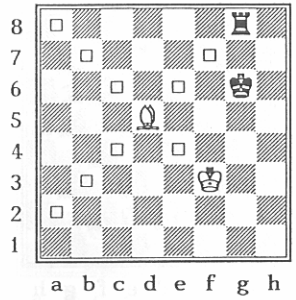
THE QUEEN AND HOW IT MOVES

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.



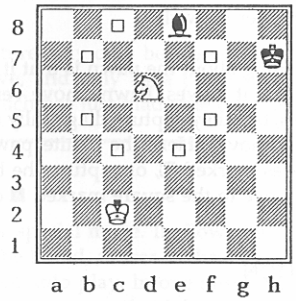
THE ROOK AND HOW IT MOVES

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.



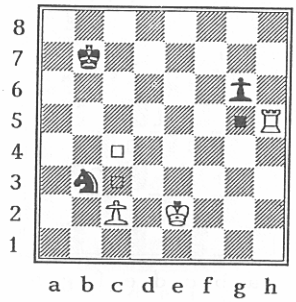
THE BISHOP AND HOW IT MOVES

The bishop is less powerful than the rook because it moves diagonally and is restricted to squares of only one colour 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.



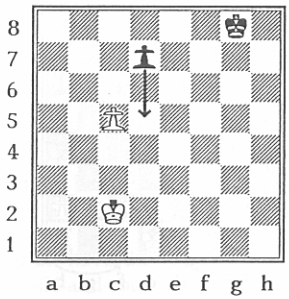
THE PAWN AND HOW IT MOVES

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

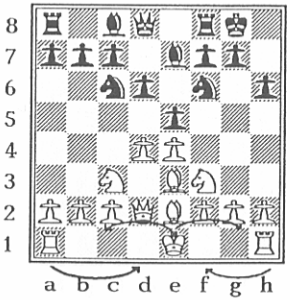
In this position, if Black advances his pawn two squares to the square d5, the white pawn may make a special type of capture called an "***en passant***" capture ("*en passant*" is French for "in passing"). To make the *en passant* capture the white pawn moves to the square d6 and White captures the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

3 STARTING PLAY

The computer is powered by batteries as specified on the label near the battery compartment. Remove the lid on the base of the unit and install the batteries in their compartment, making sure that the polarity of the batteries is correct. If your computer may be operated using an AC/DC adapter, information concerning the adapter is on the rating label on the base of the unit.

OCCASIONALLY AFTER INSERTING NEW BATTERIES OR CONNECTING AN ADAPTER THE COMPUTER MAY ACT ABNORMALLY, IN WHICH CASE PUSH A THIN OBJECT INTO THE "RESET" HOLE IN THE BASE OF THE COMPUTER AND PRESS DOWN ONCE.

When you load new batteries or connect an adapter the □ symbol will be on and the computer will be ready to start a new game in which White has unlimited thinking time while Black has a time limit of 10 seconds per move.

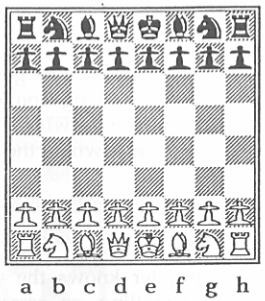
If you want to alter the time limit for White and/or Black, see section 14 ("Levels of Play").

If you have not just loaded new batteries, to switch on the computer press the ON key. The computer will remember the position which was on the board when you last switched it off.

4 THE CHESS PIECES AND THE INITIAL POSITION

If you are a beginner or fairly new to the game of chess, the chart of chess pieces on page 1 of this instruction book will help you to learn the symbols for the different pieces. Set-up the pieces on your computer in their starting position, as shown in the next diagram.

(Note that if your computer comes with pieces that have pegs in their base, the pegs should be inserted into the holes in the centre of each square.)



Chess board set up for the start of a game.

5 CHESS NOTATION

The computer communicates its moves to you using a system called "algebraic notation".

The files, or vertical columns of squares on the chessboard, are identified by the letters a-h (looking at the board from White's side, and reading from left to right). The ranks, or horizontal rows, are numbered 1-8, starting from the White end.

This means that every square can be named by giving the letter of its file and the number of its rank - like a grid reference on a map. For instance, at the start of the game the white king is on e1 and the black queen is on d8. To make it easier for you to identify each of the squares on the chessboard they are all marked with their algebraic co-ordinates (for example, e2, d3).

6 MAKING MOVES

To make a move simply press down gently with your piece on its "from" square. The LCD will display the colour symbol (□ if you are playing White or ■ if you are playing Black) and the letter and number corresponding to the "from" square. **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.**

Then press down with the same piece on the "to" square to

complete the move, or re-press the "from" square to cancel it.

Here is an example at the start of a new game. If you wish to move the pawn in front of White's king from e2 to e4, press with that pawn on the e2 square and you will see **E2** appear on the LCD. Now press down with that pawn on the e4 square and your move is completed.

7 THE CHESS RULES

Remember that your computer knows the rules of the game, including the rules about castling, *en passant* captures, pawn promotion and stalemate. **It will never break any of these rules.**

Sometimes it may seem that the computer has made an irregular move, but what will have happened is that you will accidentally have made a mistake when entering a move (either your own move or one by the computer); or you may have accidentally put one or more of the chess pieces on the wrong square during the game. If this happens you should verify the locations of all the pieces by using "verify position" mode (see section 17).

If you are in any doubt about any of the rules of chess you should take another look at "LEARN CHESS" (section 2).

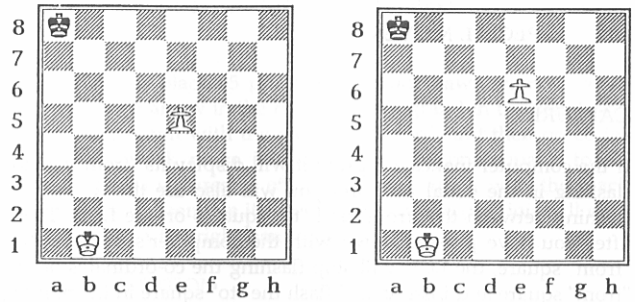
8 THE COMPUTER'S MOVE

If the colour symbol on the LCD is flashing it means that the computer is thinking about its move. While the computer is thinking none of the keys has any effect, except for the MOVE key (see section 13).

When the computer has decided on its move the LCD will display its colour symbol, the letter and number corresponding to the "from" square (flashing) and the letter and number of its "to" square. Press down with the computer's piece on the "from" square. Then the LCD will stop flashing the "from" square and start flashing the "to" square.

If the computer's move is a capture it will also be flashing the **:** symbol on the LCD.

Press the computer's piece on its "to" square. The LCD will then display the □ or ■ symbol according to which player's turn it is next. Here is an example.



Imagine that the computer is playing White. If it is the computer's turn to move from the position in the left hand diagram and it decides to advance its pawn from e5 to e6, the □ symbol will be on and the display will show **E5** (flashing) and **E6** (not flashing).

If you press down with the computer's pawn on the e5 square you will see the **E5** stop flashing while the **E6** starts flashing. If you then press down with the computer's pawn on the e6 square the □ symbol will go off and the ■ symbol will come on, showing you that it is now Black's turn to move (in other words, it is your move next).

The position on the chessboard should then look like the one in the right hand diagram because you have moved the computer's pawn from e5 to e6.

9 ERRORS

To cancel a move after pressing the "from" square, press the same square again.

If you press an inappropriate key or square you will hear the error signal (a low buzz). This will clear the "from" square if one has

already been selected. Start your move again, or (if it is the computer's move) continue normally by pressing the square indicated by the LCD.

10 SPECIAL MOVES

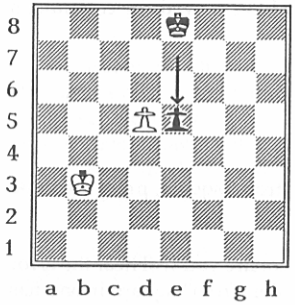
CAPTURES

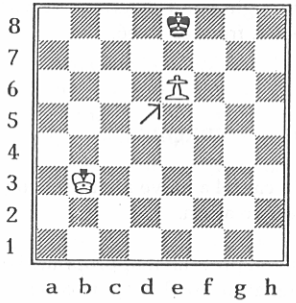
If the computer makes a capture it will display its "from" square flashing in the usual way and you will also see the : symbol flashing between the "from" and "to" squares on the LCD. Then, after you have pressed down with the computer's piece on the "from" square, the LCD will stop flashing the co-ordinates of the "from" square and instead will flash the "to" square in the normal way. The computer's "to" square will be currently occupied by one of your pieces, and the computer's move captures this piece.

EN PASSANT CAPTURES

Press the "from" and "to" squares of the capturing pawn. The square of the pawn being captured will then appear on the display (flashing), followed by **0**. You should now press the square of the pawn being captured as you remove it from the board. This applies whether the *en passant* capture is made by you or the computer.

Here is an example.





In the position in the left hand diagram let us imagine that the computer is Black and has just advanced its pawn from e7 to e5. This double pawn move, landing on a square next to your pawn on d5, allows you to make an *en passant* capture. (If you do not understand why, take another look at "*EN PASSANT* CAPTURES" on page 7.)

To capture the black e5 pawn, move your pawn from d5 to e6 (shown by the arrow in the right hand diagram) in the usual way by pressing down with the pawn first on d5 and then on e6 (as though the black pawn had advanced just one square, to e6, instead of two squares to e5). Then press down with the black pawn on e5 and remove it from the board. The position will now be as shown in the right hand diagram.

PAWN PROMOTION

Press the "from" and "to" squares for the pawn in the normal way. The LCD shows the appropriate colour symbol, and flashes the number **5** (denoting a queen). If you wish to promote your pawn to a queen there is no need to change what is on the LCD. Simply press the QUEEN key to select it. The LCD then flashes the promotion square again. To complete your move, press down on this square as you place the new piece on the board.

If, instead of a queen, you wish to promote to a rook, bishop or knight, when the computer displays the number **5** on the LCD press the ROOK, BISHOP or KNIGHT key to display **4**, **3** or **2** respectively. When the number of the desired piece is shown, press the piece type key again to select it. The promotion square then flashes again. Press this square to confirm the move as you place the promoted piece on the board.

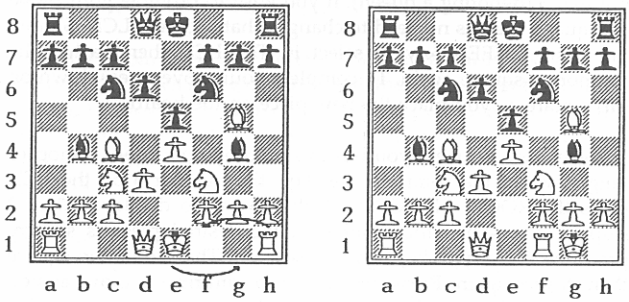
If the computer promotes a pawn it will display its move in the usual way (the "from" square then the "to" square of its pawn) then, when you have moved the computer's pawn to its promotion square, you will see the number **5** flashing on the LCD, indicating that the computer wishes to promote its pawn to a queen. This directs you to press the QUEEN key. After that the promotion square flashes again. Finally, press the promotion square as you place the newly promoted queen on its square.

Note that the computer will never promote its own pawn to a rook, bishop or knight.

CASTLING

If you wish to castle, move your king first and then your rook. When you have pressed your king on its "from" and "to" squares the computer will beep and automatically display the "from" and "to" squares of your rook. For example, if you are playing white and you decide to castle king's side, you press with your king on the square e1 followed by the square g1, and the computer will beep and display **H 1** (flashing) and **F 1** (not flashing). After you press the rook on the h1 square, **F 1** will start flashing, directing you to move the rook to the square f1.

When the computer castles, the move is carried out in the same way. Here is how the board will look before and after this example.



In the position shown in the left hand diagram imagine that you are playing White and you decide to castle king's side. First you press down with the white king on the square e1 and your computer will display the fact that you are moving from the e1 square. Then you press down with the white king on the square g1. This tells the computer that you are making the castling move (since any other move by the king may only be to a square adjacent to its current square).

Once the computer knows that you are castling it will remind you to make the second half of the castling move with your rook. In this case the computer will display **H 1** (flashing) and **F 1** (not flashing), to remind you to put your rook on the f1 square. When you have pressed down with your rook on h1 and f1, the computer knows that the castling move has been completed.

When you have completed making the castling move in this example the chess board will look like the position in the right hand diagram.

11 CHECK, CHECKMATE, etc.

If either player gives check the **+** symbol appears on the LCD display. If it is the computer that is giving check, it will alert you by sounding **6 beeps.**

If you or the computer give checkmate, you will hear **12 beeps** and the LCD will show either **1 0** (White wins) or **0 1** (Black wins).

If either player gives stalemate, the computer gives **12 beeps** and the LCD shows **==**

If either player makes a move causing a simple repetition of position (the same moves back and forth 3 times) the LCD shows **3 =**

If the game is drawn under the 50-move rule the LCD shows **50.**

12 NEW GAME

To start a new game press the NEW GAME key. The LCD will display

P G

and you may now press NEW GAME again to confirm that you want to start a new game, in which case the □ symbol will be displayed and the computer is ready to begin.

Instead of pressing NEW GAME a second time to start a new game with all the pieces on the board, when the LCD displays **PG** you have various other options. You can press KING if you want to start a game of checkers (see sections 28 and 37). Or you can press LEVEL to play through a "famous game" (see section 26). Alternatively, you may press:

	PAWN	to start a game with only kings and pawns
	QUEEN	to start a game with only kings, queens and pawns
	ROOK	to start a game with only kings, rooks and pawns
	BISHOP	to start a game with only kings, bishops and pawns
or	KNIGHT	to start a game with only kings, knights and pawns.

If you start a game by selecting one of the above options the computer will be ready to play with only those pieces indicated (the kings, pawns and one other piece type where appropriate), all of which will be on their usual squares for the start of the game. These five options are designed to help beginners. When you first learn to play it may help you to understand how to make good use of your pawns if you just play with the kings and the pawns on the board. When you feel that you know how to use your pawns properly, and how to use your king to attack your opponent's pawns, try playing with just kings, knights and pawns. Then work through all the other pieces, one by one.

In some situations (if, say, you are in the middle of carrying out a move), pressing the NEW GAME key will have no effect. If the LCD is showing a move, for example **E2 E4**, press whichever square on the chessboard is flashing on the display. If the LCD is showing a piece type (**2**, **3**, **4** or **5**) flashing, press the corresponding "piece type" key (KNIGHT, BISHOP, ROOK or QUEEN). If the LCD shows # (the set-up symbol), you should exit from "set-up position" mode as explained in section 18. If the LCD

shows both # and ↕, indicating that the computer is in "famous games" mode, you may need to complete White's move and Black's reply as explained in section 26. Having completed the operation, press the NEW GAME key to get a new game.

13 INTERRUPTING THE COMPUTER and CHANGING SIDES

If you press MOVE when the computer is thinking it will immediately make the best move it has found so far.

If you press MOVE when it is your move, the computer will swap sides with you and make the next move. Pressing MOVE at the start of the game makes the computer play White.

Note that the MOVE key is inoperative in "Multi-move" mode - see section 15.

14 LEVELS OF PLAY

Your computer allows you to choose between 1,224 different "levels" of play. To make the program play a stronger game of chess, give it a longer time limit for its moves. To make it play a weaker game, give it less time. To give yourself an easier game, set your own time limit high (or "unlimited"), while if you want to make it tougher for yourself set a low time limit. It is the combination of time settings for you and the computer that creates the **1,224** playing levels.

By combining the 1,224 levels of play with the 6 different starting configurations (the 5 teaching modes plus the standard starting position) you can choose from **7,344** level combinations.

To see the current level (the time limits for White and Black), press LEVEL when it is your turn to move. This displays the time per move allowed for White. Unless White's thinking time is "unlimited", this display will consist of a flashing ":" preceded (where appropriate) by the number of minutes and followed by the number of seconds. If you have just installed the batteries or connected the adapter (or if you have just switched from playing checkers or playing through a "famous game"), White's thinking time is "unlimited", which is displayed as **Un**.

If you want, you can now alter White's time limit by re-pressing the LEVEL key. From **Un**, the display switches to **0**. If you press LEVEL a few more times, the display changes to **5**, then **10**, **15** etc. - increasing in steps of 5 seconds up to **1:30** (i.e. 1 minute 30 seconds). The next press on the LEVEL key changes the steps to 10 seconds, so after **1:30** the LCD will display **1:40** and then steps of 10 seconds up to **4:00** (i.e. 4 minutes). The display then reverts to **Un**, then **0**, **5**, **10** ... and so on. If you hold the LEVEL key down, the display changes more quickly.

When the LCD shows the time limit that you want for White, you can press the WHITE/BLACK key to display the current time limit for Black. (Note that the ■ symbol comes on to replace □.) When you first start to play chess with the computer, the time limit for Black is 10 seconds per move. You can change this time by re-pressing the LEVEL key or holding it down, in the way already described.

You can switch between the colours using the WHITE/BLACK key as often as you like. The option of specifying the time limits for both White and Black gives you a total of 1,224 combinations - but if both limits are 0 it is a special case (see below). After setting the times for both colours, press any square of the chessboard or any key except LEVEL or WHITE/BLACK (or ON). Play can then continue.

The computer will make each of its moves within the maximum thinking time specified for the colour it is playing. If its time limit is zero it will play almost instantaneously. With "unlimited" time, it will take an average of about 5 minutes per move, though some individual moves may take much longer. On this level the computer can solve "mate-in-two" problems - see section 16.

If the time limit for the side you are playing is not "unlimited", the LCD will show your remaining thinking time in seconds, counting down to zero. When you are down to 5 seconds, the computer sounds 3 warning beeps, and if your time runs out it sounds 6 beeps. However, the computer does not mind if you overstep the limit; you can still make your move and continue the game normally. If you don't like the beeps, select "unlimited" time for the side you are playing.

If you set both time limits to zero, the computer will be in "Multi-move" mode, as explained in section 15. This means it will allow you to play moves for both sides while it verifies that each of your moves is legal, and it will not compute any moves itself.

NOTE:

(1) If you give the computer 0 or 5 seconds per move and yourself 20 seconds or less, you are selecting a "fun level" on which the computer will sometimes make deliberate mistakes. If you reduce your own time limit below 20 seconds, the mistakes will be all the greater: if you have 5 seconds against the computer's 0 or 5, it may even lose its queen. On these levels even a total beginner will be able to have fun and will often beat the computer.

(2) The computer is equipped with an "openings book" containing many standard chess openings; so it will often play the first few moves of a game instantaneously, irrespective of the level. However, if you take back moves (section 19), or receive a hint (section 22), or play moves for both sides (section 15), or make any errors when carrying out your moves (section 9), the computer will stop using its openings book and will simply compute its moves in the normal way.

15 PLAYING BOTH SIDES (MULTI-MOVE MODE)

This mode is useful if you want to use the computer as a chessboard and referee for a game between yourself and a friend, or if you wish to enter a special sequence of moves, for example the moves of a particular chess opening or the moves of a game which you have found in a newspaper or a chess book.

To enter multi-move mode, set the thinking time for both White and Black to 0 as described in the previous section. You will then be able to make moves for both sides. When you have entered a move for one side the computer will not start to think about a reply move, it will wait for you to enter the move for the other side.

If you are using multi-move mode to play a game against a friend the computer will make sure that you both follow the rules of chess. If one of you tries to make a move which is against the

rules, the computer will sound the "error" signal (see section 9) and the impossible move must then be corrected before the game can continue.

If you are using multi-move mode to enter a special sequence of moves into the computer, once you have finished entering all the moves you may continue to play from the resulting position by changing levels, i.e. by giving one or both players a time limit other than 0. Once you have selected the new level you may make the next move yourself in the usual way, or you may ask the computer to make the next move by pressing the MOVE key.

16 SOLVING MATE-IN-2 PROBLEMS

Your computer can solve chess problems of the kind found in many chess columns in newspapers, or in chess books or magazines. When you see such problems they normally have a caption saying something like "White to play and mate in 2 moves". This means that the solver must find the next move for White and it must be a move which forces checkmate on the following move. In other words, White's first move in the problem position is the key to solving the problem and no matter how Black responds to it White will be able to give checkmate on his second move.

Your computer can solve any of these mate-in-2 problems (unless they involve a pawn promotion to a knight, bishop or rook, which would be quite unusual).

First you need to set-up the problem position as described in section 18 (Setting Up a Position). Then set the computer's thinking time to "unlimited" and press the MOVE key so that it starts thinking. Once it finds the solution to the problem it will display the first move of the solution. After making this move on the computer's chess board in the usual way, you may try to find a defence to the checkmate threat. If you do make a defensive move in reply, the computer will then make a checkmating move.

If you set-up a position for "unlimited" thinking time but there is no way to force checkmate in 2 moves, the computer will make the best move it can find.

17 VERIFYING THE POSITION

To enter "verify position" mode, press VERIFY POSITION and the centre of the display will show

u

To verify what is on a particular square, press on that square. If the square is occupied then the LCD will display the appropriate colour symbol, followed by "**u**", followed by the piece number (**1**=pawn; **2**=knight; **3**=bishop; **4**=rook; **5**=queen; **6**=king). If the square is vacant, the display will show "**u 0**".

To exit from "verify position" mode, re-press VERIFY POSITION (or press any other key except ON).

18 SETTING UP A POSITION

To enter "set-up position" mode press SET-UP POSITION. The display will show the □ or ■ symbol, which indicates the side whose piece will next be placed on the board. The computer will also display the set-up symbol, which is the # symbol near the upper left-hand corner of the LCD.

While the computer is in set-up position mode you can clear the board. To do so press the MOVE key. The LCD will display **Cb** and you should then re-press the MOVE key to confirm that you want to clear the board, or you may press any other key or square to cancel the "clear board" command.

To place a piece on a square, press the appropriate "piece type" key, then press the square. This automatically replaces any piece that was on the square before.

To clear a square press that square without first pressing a piece type key.

If the next piece that you wish to place on the board is the opposite colour to the last piece placed, switch colours by pressing the WHITE/BLACK key.

To exit from set-up mode press SET-UP POSITION. Note that whichever colour symbol is displayed when you exit from set-up mode, it will be that player's turn to move next. If you wish to change the side to move next, simply press the WHITE/BLACK key immediately before you exit from set-up mode.

When you exit from set-up mode the program tests that: (a) each player has exactly 1 king; (b) the side to move is not giving check; and (c) there are no pawns on the 1st or 8th rank. If the position is illegal, the computer gives its error signal and displays "??". You can now: [i] press VERIFY POSITION to use "verify position" mode (see section 17) in order to find out what you have done wrong; [ii] press SET-UP POSITION to re-enter set-up mode (to correct the position); or [iii] simply press NEW GAME twice to start a new game.

N.B.: There can be no castling with a rook that has been inserted on the board in "set-up" mode. If you want to create a position in which the players have castling rights, you can do so by entering "set-up" mode after using the NEW GAME key to return to the starting position. Then leave the rooks alone while you rearrange other pieces as appropriate. To make castling with a particular rook impossible, remove the rook and re-insert it.

19 TAKE BACK

If you make a move which you realise is a mistake, after the computer replies you can take back the computer's reply and your own move. To take back a move press TAKE BACK, whereupon the LCD displays the last move with the "to" square flashing. You may now press TAKE BACK again to cancel the command or you may press on the "to" square, in which case the "to" square stops flashing while the "from" square starts to flash. Now move the piece back to its "from" square and press that square.

If the move was a capture the LCD will now display the "to" square (flashing) together with the colour symbol and the number

corresponding to the captured piece (1=pawn; 2=knight; 3=bishop; 4=rook; 5=queen). Press the square on which the capture was made as you replace the captured piece on the board.

If the move taken back was a castling move, the computer directs you to take back the king move first, then the rook move.

If the move taken back was a pawn promotion, the computer directs you to move the promoted piece back by indicating the "to" and "from" squares, then it displays the number 1 (because the piece moved was a pawn) while the "from" square still flashes. Press the "from" square a second time as you replace the pawn on the board.

If the move taken back was a capture *and* a pawn promotion, press the "to" square, the "from" square, then the "to" square again (as you replace the captured piece on the board), and finally the "from" square once again as you replace the pawn on the board.

After taking a move back, you may continue the game by making a move in the normal way for the side whose turn it is; or you may press MOVE to make the computer carry on playing for that side; or you may press TAKE BACK again and retract the preceding move in the same way as before. (You cannot retract more than a pair of moves at any one time.)

N.B.: Take-back resets the 50-move count and erases any repetition of position data, but restores castling rights where appropriate. If you have just taken back a pair of moves (one for each side), the next move cannot be a pawn capture *en passant*.

20 SOUNDS

The beeper normally sounds whenever you press a key, and at certain other times. If you prefer to play without the sounds, press SOUND to switch the sound off. Press it again to switch the sound on (you will then hear a double beep).

When the sound is off, the LCD will display ? in all cases where it would normally give its audible error signal. Press any key or square to clear the ? from the display, then proceed as you would with the sound on.

21 MEMORY

If a game in progress has to be interrupted, the computer can be switched off (with the OFF/SAVE key) when it is your turn to move; it will then retain the game position in its memory while using a minimum amount of current. When you switch on again, the situation will be wholly unchanged, and the game can be resumed as before.

22 HINT

When it is your turn to move, if you don't know what to do you can ask the computer to give you a hint. Press the PAWN/HINT key and after about 4 seconds the computer will suggest a move to you. If you now decide to take the computer's advice, press PAWN/HINT again and the computer will help you to make the move by flashing the "from" square and "to" square in the usual way.

If you do not wish to take the computer's advice press any other key or square, clearing the "hint" move from the display, and you may play any move in the usual way.

23 STYLES OF PLAY

The computer can play in 5 different styles:

Style 1	Very Passive
Style 2	Passive
Style 3	Normal
Style 4	Aggressive
Style 5	Very Aggressive

In **Very Passive** style you will generally find that the computer keeps its own pieces near its side of the board and does not like to advance them very much.

In **Passive** style it still has a tendency to keep its own pieces near its side of the board but less so than when playing in "Very Passive" style.

In **Normal** style the computer does not play unusually passively or aggressively. With this style its play is likely to be strongest.

In **Aggressive** style the computer likes to advance its pieces up the board more than normal.

In **Very Aggressive** style it likes to advance its pieces up the board even more than when playing in "Aggressive" style.

To inspect the current style, press the KING key. The display will show the "style" symbol (this is made up of the □ and ■ symbols together) and the current style number. To change the style number, press the KING key again - this increases the number by 1 (after style 5 the computer cycles back to style 1).

When the required number is displayed, press a different key or square. The "style" symbol is cleared from the LCD, and play can continue.

24 PLAYER RATING FEATURE:

How Good is Your Chess? Measure Your Progress

Your computer can estimate how strong you are as a chess player from the **results you score against it** and from the **amount of time that you take to think.**

Our special rating system has been designed to enable you to measure your progress. **It is not an official rating.** An official rating can only be awarded by a local, national or international chess organisation, based on the results you obtain when participating in supervised chess tournaments.

How to Find Out Your New Rating

The computer is able to adjust your rating at the end of each game, according to the result of the game and the relative thinking times used by you and the computer. If you want it to do so, however, you need to tell it the result of this game BEFORE you start the next one. First press the KNIGHT/RATING key and the

computer will display the "rating" symbol (!) together with your previous rating. Then press the:

QUEEN/WIN key if you won the game - display shows **1**
ROOK/DRAW key if you drew the game - display shows **=**
or BISHOP/LOSE key if you lost the game - display shows **0**

NOTE: If someone else plays against your computer and you do not want the results of their games to be included in the computer's calculations for your rating, make sure that none of the QUEEN, ROOK or BISHOP keys is pressed while your current rating is displayed.

Once you have told the computer the result of the previous game, you may find out your rating for that game by pressing the KNIGHT/RATING key again. (Pressing any other key will clear the LCD and the computer will ignore the result of the game that you have just input.) Remember, the rating which is displayed, flashing, will apply only to the game you have just played and is called your "performance rating" for that game.

To find out how the latest game has changed your rating press the KNIGHT/RATING key again. You will then see your new rating on the display (not flashing). This will have been calculated from your rating before the game, together with the rating change due to the game you have just played. You may switch back and forth between your performance rating for your latest game (flashing) and your new rating (not flashing) as often as you wish by pressing the KNIGHT/RATING key.

You may also see your current rating during a game by pressing the KNIGHT/RATING key. This will be the rating based on games you played before the current game started. You may erase the rating from the display by pressing a key other than QUEEN/WIN, ROOK/DRAW or BISHOP/LOSE.

NOTE: Using the QUEEN, ROOK or BISHOP key in "verify" mode does not affect the computer's calculation of your rating.

Your performance can only be measured reliably in games played under normal conditions, in which you receive no special advantage or help. The computer will not give you a rating for a game if:

(a) you take back any moves (see section 19);
(b) you ask the computer for a hint (section 22);
(c) you interrupt the computer or swap sides with it (section 13);
(d) you play moves for both sides (section 15);
(e) you are playing from a position you "set up" (see section 18);
or (f) the game began from one of the special starting positions with restricted forces (section 12).

In any of these cases, when you display your current rating, a press on the QUEEN/WIN, ROOK/DRAW or BISHOP/LOSE key will simply clear the rating from the LCD.

Of course, you can cheat if you wish, and tell the computer that you won when really you lost or drew the game, but although this will give you a higher rating you will only be fooling yourself. The rating system has been programmed into your computer to help you keep track of how your chess is improving, and the best way to follow your progress is to tell the computer the true result for every game that you play against it. You can then write down your rating after each game and keep notes on your progress, or even draw a graph to show what your rating is after a certain number of games.

Rating systems have been used to measure the strength of chess players ever since the late 1950s and your computer has a well established rating method included in its program. When you win games against the computer your rating goes up. When you lose games your rating goes down.

If the game ends in a draw your rating may go up (if you were rated below the computer's strength before the game started), or your rating may go down (if you were rated above the computer's strength before the game started), or your rating may remain the same. The change in your rating depends on the result of the game, on the rating difference between you and the computer

before the game and on the total thinking times that you and the computer used during the game.

How the Rating System Works

The basic principles of the rating system are very simple. Let us start by assuming that you and the computer both use the same total time during a game and that you win the game. Since you won the game your rating will go up. The amount that it goes up will depend upon the rating difference between you and the computer before the game started.

If you were rated very much lower than the computer before the start of the game then the computer would be expected to beat you most of the time, so you will gain a lot of rating points for beating it. If you were rated slightly lower than the computer then you will gain fewer rating points. And if you were rated higher than the computer then you would be expected to beat it more often than not and so you will gain still fewer rating points for beating it.

On the other hand, if you lose a game against the computer you will lose rating points. If you had been rated below the computer before the game, you will lose comparatively few rating points if it beats you. But if you were rated higher than the computer before the game you will lose more rating points if it beats you.

Now let us consider what happens if you take much longer than the computer over your moves (or vice versa). If you take longer than the computer then you are, in effect, making yourself stronger than in the previous example because you are thinking more. The computer's rating system takes this into account and when it calculates your new rating, after a game, it first considers whether you or the computer took longer to think and, if so, by how much. So you will gain extra rating points for winning a game if you use less total thinking time than the computer, and you will gain fewer points for winning a game if you use more total thinking time than the computer.

What Your Rating Means

The following scale indicates your playing category:

If your rating is below 800 you are an absolute beginner.

Between 800 and 1,000 you are a novice.

From 1,000 to 1,200 you are an intermediate player.

From 1,200 to 1,500 you are an advanced player.

Above 1,500, you are too strong for this computer and should think about an upgrade to a stronger model.

Note that when you load new batteries or connect a power adapter the computer will reset your rating to 1,000 and it will take a few games before your rating is steady.

25 SWITCHING OFF and SAVING THE GAME

If you press OFF / SAVE when it is your turn to move, the board position will be retained in the computer's memory. You may even put away the chess pieces, since you can find out where they are when you resume the game simply by using "verify position" mode (section 17) or by writing down the locations of the pieces when you interrupt the game.

26 FAMOUS GAMES

Your computer's memory contains 40 classic games played by famous chess masters of the past and present. It can demonstrate these games to you, move by move. Before carrying out a move by White (the winning side), you have the chance to guess what move it is, and the computer gives you points according to how many guesses you need.

To use this feature, place the pieces on the board in the starting position, press the NEW GAME key, and when **PG** appears on the display, press LEVEL. You will then see the symbols # and ↕ displayed together, to show that the computer is operating in "famous games" mode. At the same time the LCD shows **FG** followed by a number in the range 1-40, denoting one of the famous games. You can increase this number by further presses on the LEVEL key (if you hold the key down, the number increases more quickly). After reaching 40, the number reverts to 1.

When the LCD shows the number of the game that you want to play through, press NEW GAME again. This clears the number from the display, and you are ready to guess White's first move. Press down with the piece that you think should be moved. If you are right, the computer "beeps" and displays the "from" square. If you are wrong, it gives its "error" buzz and momentarily displays ?? . You can now try again, as many times as you like. Once the correct "from" square is displayed, press the piece down on the square to which you think it is moving. Again a wrong guess will produce the error buzz and display ?? , and you can have further tries.

When you guess the correct "to" square, the computer beeps, momentarily displays the complete move, and then shows your score for this move in the right-hand part of the display. The score will depend on how many wrong presses you made when trying to guess the "from" and "to" squares, as shown in the following table:

Mistakes	Score
0	10
1	8
2	6
3	5
4	4
5	3
6	2

If you make more than 6 mistakes you will score 0 for this move, unless by that time you have guessed the right "from" square, in which case you score one point.

Now press a key or square, and the computer displays = followed by your percentage score for the game so far.

Again press a key or square, and the LCD shows the next move for Black (the losing side). Carry out this move as you would in a normal game, pressing down on the "from" and "to" squares. Then the □ symbol appears, and you are ready to guess White's next move.

Whenever White or Black plays one of the "special" moves described in section 10, the computer will remind you to complete the move in the normal way. Note, however, that when White promotes a pawn, you are not given a choice of promotion piece; the computer simply directs you to press the QUEEN key before pressing the "to" square a second time.

If you want to "give up" guessing White's move, you can press the MOVE key (either before or after the "from" square has been guessed). The computer will then direct you to carry out or complete the correct move. Your score for this move will be 0 (unless you guessed the right "from" square before making 7 mistakes, in which case you score 1). Of course, you may not be interested in guessing the moves at all; you may simply prefer to use the MOVE key to make the computer demonstrate the game.

Of course, in many chess positions there is more than one good move available. (This will naturally be the case during the opening phase of the game; or at the end of the game there may be more

than one way to force checkmate.) In such cases, if you make a "wrong" guess, it does not mean that the move you chose is necessarily bad, and you can be content if, say, you guess the right move at the second or third try. It follows that you can hardly ever hope to make a perfect score, but should be happy if you maintain a high average.

Before starting to guess a move for White (or at the end of the game), you may display your current percentage score by pressing the WHITE/BLACK key. A further press on a key or square clears this display and allows you to continue.

Eventually, after playing a move by White and displaying your scores, you will hear twelve beeps and see **10** in the middle of the LCD. This means that the game is over -- either White has given checkmate, or the player with Black resigned at this point.

At the end of the game, or whenever you are ready to start a move by White, you have the option of pressing NEW GAME to display **PG** . You can then press MOVE to begin another famous game as described above; or, if you have finished using the "famous games" feature, you can begin a normal game of chess (or checkers) as described in section 12. The computer's "level" will then be set to "unlimited" time for White and 10 seconds per move for Black.

Here is a full list of the famous games, showing the names of the players and the reason why each game ended. (The notation for the moves is the "full" algebraic type, explained on page 40.)

1 Anderssen-Kieseritzky
Black has been checkmated.

2 Anderssen-Dufresne
Black has been checkmated.

3 Kolisch-Paulsen
Black can't stop 25 Rf3-g3+, forcing mate.

4 Steinitz-Chigorin
28 ... Ke5-f5 29 Qd4-f4 (or 29 g2-g4) is mate.

5 Pillsbury-Winawer
If Black moves his attacked rook, White forces mate with 22 Qh6-h8+ or 22 Qh6-f8+.

6 Rubinstein-Teichmann
Black is mated after 26 ... Bd6xe7 27 Qf5-e6+ or 26 ... Re8xe7 27 Qf5xf6 Bd6-b4 28 Rg1-h1 Re7-g7 29 Qf6-e6+.

7 Alekhine-Grigoriev
Black has been checkmated.

8 Janowski-Chajes
26 ... Rh8xh7 27 Rd7xh7 is mate.

9 Adams-Torre
Black loses his queen or is mated, e.g. after 23 ... Qb5xb7 24 Re1xe8+.

10 Rubinstein-Hromadka
Black loses a piece, since his rook and knight are both attacked.

11 Réti-Bogoljubow
After 25 ... Rd8xe8 26 Qf5xf8+ or 25 ... Bf8-e7 26 Qf5-f8+, Black is mated.

12 Colle-Grünfeld
If e.g. 27 ... Bd5-e4 then 28 Qh8-g7+ Kf7-e8 29 Qg7-g8 mate, or 27 ... Bd5-e6 28 Bc8xe6+ and 29 Qh8xa8.

13 Capablanca-Spielmann
After e.g. 26 ... Rf8xf4 27 Rb1xb6, White will queen his a-pawn.

14 Sämisch-Engel
On 26 ... Kh8-g8, White plays 27 Qh5-h7+ Kg8-f7 28 Bd3-g6 mate.

15 Capablanca-Havasi
Black must lose a piece; if 27 ... Rg8-d8 28 Nd5xb6 Nd7xb6, then 29 Rf7-h7+ Kh8-g8 30 Rc7-g7+ Kg8-f8 31 Rh7-h8 mate.

16 Spielmann-Honlinger
Black has been checkmated.

17 Alekhine-Asgeirsson
Black has been checkmated.

18 Capablanca-Steiner
Black has been checkmated.

19 Alekhine-Alexander
Black has no defence to 28 g4-g5, winning the knight which is pinned against his queen and king.

20 Keres-Böök
If 27 ... Qd8xe7, 28 Bb2xd4+ wins.

21 Spassky-Avtonomov
White threatens 22 Qf6-g7 mate and 22 Nf5-e7+ winning the queen; Black can't prevent both.

22 Keres-Unzicker
After 27 ... Kg8-h8 29 Rc4-g4 Qg7-a1+ 30 Kg1-h2, the threat of 31 Rf5-f8+ is decisive.

23 Tal-Larsen
White wins a piece in view of 24 ... Nf6xd7 25 Rd1xd7 Rd8xd7 26 Qc3xh8+.

24 Fischer-Benko
White has a decisive material advantage (queen against rook).

25 Tal-Smyslov
Black is the exchange and a pawn down.

26 Stein-Osnos
White threatens 25 Rd6-d8 mate, which Black can't prevent without decisive loss of material.

27 Spassky-Bronstein
After 23 ... Kh7-h8 24 Rf1xf8+ and 25 Ne5-g6+, or 23 ... g7-g6 24 Rf1xf8 and 24 Qe4xg6+, Black is mated or loses his queen.

28 Fischer-Geller
White captures whichever piece intervenes between his queen and the black king, and comes out a rook and bishop up.

29 Petrosian-Korchnoi
After 21 ... Qb8xa8, 22 Qb3-e6 wins: 22 ... Bd6-e7 23 Nd4-c6, or 22 ... Qa8-b8 23 Nd4-c6 Qb8-c7 24 Nc6-e7.

30 Spassky-Evans
Black is mated next move.

31 Stein-Liberzon
25 ... Bg7xh6 is met by 26 Rh1xh6+ Kh8-g7 27 Rh6-h7+ Kg7xf6 28 Rd8xf8 mate.

32 Fischer-Gligoric
Black is two pieces down.

33 Stein-Uhlmann
Black must lose queen for bishop, and is left with knight against rook and two pawns.

34 Zaitsev-Storoshenko
Black has been checkmated.

35 Kasparov-Kengis
If 23 ... Qe6xe4, then 24 Ng4xf6+ Rf8xf6 25 Qa1xf6 followed by mate on g7.

36 Karpov-Korchnoi
On 28 ... Kf8-g8 or 28 ... Kf8-e7, White mates with 29 Qf3-f8.

37 Kasparov-Marjanovic
23 ... Kh8-g7 24 Ne7-f5+ g6xf5 25 Qh4-h6 (or 24 Qh4-h6+ Kg7xf6 25 Bf4-g5) is mate.

38 Kasparov-Ligterink
Black has lost the exchange for inadequate compensation; if 24 ... Be7-f6, then 25 Rb1-b7 attacks the knight and the f7 pawn.

39 Kasparov-Petrosian
After 24 ... Qe7xc5 25 Rd1xd8+ Qc5-f8 26 Rd8xf8+ Kg8xf8 27 Rc1-c7, White wins a pawn and has a big positional advantage.

40 Kasparov-Murey
Black remains the exchange and three pawns down.

HOW TO USE YOUR PIECES

A Special Teaching Method Built into your Chess Computer!

WHAT IS OUR SPECIAL TEACHING METHOD?

Our special teaching method teaches beginners in a simple, methodical way the fundamentals of chess, ranging from individual-piece moves to strategies for the whole game.

New players can choose from five easy-to-follow teaching modes. In the first mode, for example, you compete against the computer in a game in which only the pawns and kings are used. Once you have understood that mode, you progress to the next modes where more chess pieces are used. The five teaching modes are:

MODE 1: **Uses kings and pawns.**

MODE 2: **Uses kings, knights and pawns.**

MODE 3: **Uses kings, bishops and pawns.**

MODE 4: **Uses kings, rooks and pawns.**

MODE 5: **Uses kings, queens and pawns.**

This simple teaching method has proven to be the most effective teaching method in chess.

HOW THE SPECIAL TEACHING METHOD WORKS

You can start a new game in which each player has only the king and eight pawns. By playing this form of "mini-chess" you will gain valuable experience as to how the pawns and kings interact with each other, for example - how a king can be used to attack enemy pawns or to prevent a passed pawn from being promoted.

To start a game of mini-chess with only the kings and pawns on the board press NEW GAME followed by the PAWN key (see section 12).

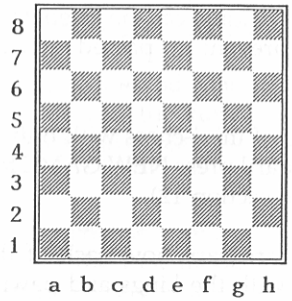
Similarly, you can learn how each of the other piece types interacts with the kings and pawns by pressing NEW GAME followed by one of the other piece type keys (KNIGHT, BISHOP, ROOK or QUEEN).

In the following pages you will learn about the pawns and the other piece types, and how they interact with each other. The piece symbols in the chess diagrams are similar to those used on the piece type keys on your chess computer.

CHESS NOTATION

We describe the moves of a chess game using a system called "algebraic notation". The files, or vertical columns of squares on the chessboard, are identified by the letters **a-h** (looking at the board from White's side, and reading from left to right). The ranks, or horizontal rows, are numbered **1-8**, starting from the White end.

Black plays from this side



White plays from this side

So every square can be named by the letter of its file and the number of its rank - like a grid reference on a map. So at the start of the game the white king is on **e1** and the black queen is on **d8**.

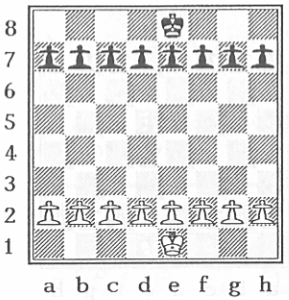
" **-** " between the "from" and "to" squares indicates a simple move.

" **x** " between the "from" and "to" squares indicates a capture.

The initial letter **K** (king), **Q** (queen), **R** (rook), **B** (bishop) or **N** (knight - to distinguish it from a king), is used before the "from" square whenever a piece other than a pawn is being moved.

Thus **Ng1-f3** means "**knight moves** from **g1** to **f3**"

while **Re1xe7** means "**rook** on **e1 captures** on **e7**".



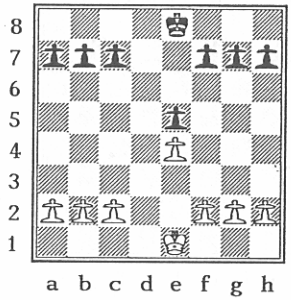
KINGS AND PAWNS

When you press the NEW GAME key to start a new game you will see **PG** displayed on the LCD. Instead of pressing the NEW GAME key again to confirm that you wish to start from the usual initial position, you may now press the PAWN key to indicate that you wish to play with the kings and pawns only. The computer will then be ready to start from the position shown in the above diagram.

By playing many games against the computer from this position you will learn how the kings can be used to attack and defend pawns and to help create "passed pawns" which can later be promoted to queens. This is a very good way to learn the fundamentals of chess. Once you are confident that you understand how the kings and pawns relate to each other you can use the modes which allow you to commence a game with only the kings, knights and pawns on the board; or kings, bishops and pawns; or kings, rooks and pawns; or kings, queens and pawns.

From the above position let us assume that the game begins as follows:

1	e2-e4	d7-d6
2	d2-d4	e7-e5
3	d4xe5	d6xe5



ACTIVE KING AND PASSIVE KING.

In this position, which is completely even, we shall see what happens if White uses his king ACTIVELY, while Black does nothing and hides his king away PASSIVELY in the corner.

4	Ke1-d2	Ke8-f8
5	Kd2-d3	Kf8-g8
6	Kd3-c4	Kg8-h8

In just three moves White's king has advanced to a menacing position while Black's is taking no active part in the game.

7	Kc4-d5	

White threatens the pawn on e5. If this pawn falls White will be a pawn ahead which is usually enough of an advantage to force a win.

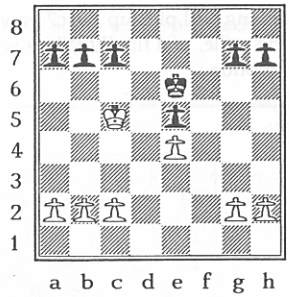
7	...	f7-f6
8	Kd5-e6	

Although Black has defended his e5 pawn White's king marches on mercilessly. The target is now the group of black pawns on c7, b7 and a7.

8	...	Kh8-g8
9	Ke6-d7	c7-c5

10	Kd7-c7	b7-b5
11	Kc7-b7	a7-a5
12	Kb7-b6	

Black's pawns at a5, b5 and c5 will now fall like ripe plums, and White will win easily.



PROBING FOR WEAKNESSES

In the previous example we learned some very important advice for the endgame. **YOUR KING IS AN ACTIVE PIECE - USE IT!** Here White's king is actively placed but this time Black has also placed his king near the centre of the board. How can White make progress? The answer is to probe Black's position and try to create weaknesses. White now starts an advance on the Q-side where he has the advantage because of his well placed king.

1	a2-a4	g7-g6
2	a4-a5	h7-h6?

A mistake. Black has completely overlooked White's idea.

3	a5-a6!!	

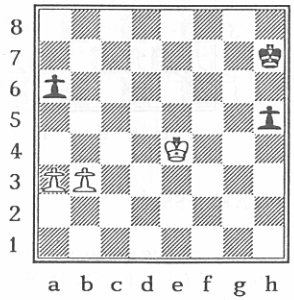
A fine move. No matter how Black responds, the black pawns on the queen's side will be forced to weaken their formation, allowing the white king to decimate them.

3 ... b7xa6

White was threatening simply 4 a6xb7, followed by 5 b7-b8, promoting to a queen. Black's only alternative was equally unpalatable: 3 ... b7-b6+ 4 Kc5-c6, followed by Kc6xc7, Kc7-b7, Kb7xa7 and the white a-pawn will then promote in a few moves.

4 Kc5-c6

White's king will pick up the c7 pawn, then it will capture the pawns on the a-file, and finally White will advance his b- and c-pawns to promotion.



CREATING A PASSED PAWN - WHICH PAWN TO ADVANCE FIRST

In positions with only kings and pawns on the board, the key to victory lies in creating *passed pawns* and marching them up the board to promotion. Usually the player who first makes a new queen will be the one who wins the game.

In the above position Black has the only passed pawn on the board (his h-pawn). White has a 2:1 pawn majority on the queen's side but has not yet converted this into a passed pawn. How can he do so? White's king must keep an eye on Black's h-pawn and prevent it from advancing to promotion, so White must advance either his a- pawn or his b-pawn. Which should it be?

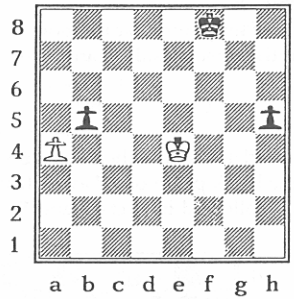
1 b3-b4!!

With this move White creates a passed pawn. The alternative, 1 a3-a4 allows Black to blockade the queen's side with 1 ... a6-a5, when White can not advance his b-pawn without losing it for nothing.

1 ... Kh7-g8

Black sees what is about to happen and rushes back to try to stop White from promoting.

2 a3-a4 Kg8-f8
3 b4-b5 a6xb5



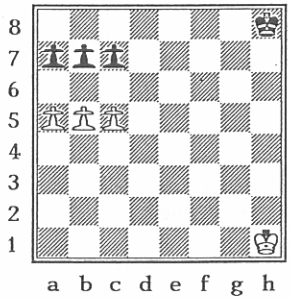
4 a4-a5!!

The only good move. If White recaptures on b5 Black can catch the passed pawn in time: 4 a4xb5 Kf8-e7 5 b5-b6 Ke7-d7 6 b6-b7 Kd7-c7, and the white pawn will be captured so the game will end in a draw.

4 ... b5-b4
5 a5-a6 b4-b3
6 Ke4-d3

and White's king prevents the black b-pawn from promoting so White will be able to promote his own a-pawn for an easy win.

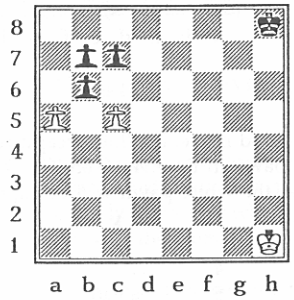
A SACRIFICIAL BREAKTHROUGH FOR PROMOTION



Here White has a very neat way to win. The idea is to force through one of his pawns to promotion before the black king can rush back to the queen's side. Can you see how?

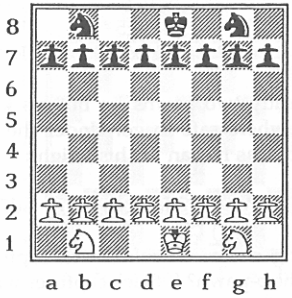
1	b5-b6!!	a7xb6

If Black tried 1 ... c7xb6 then 2 a5-a6!! sacrifices a second pawn to decoy the black pawn on b7 away from its defence of c6: 2 ... b7xa6 3 c5-c6, followed by 4 c6-c7 and 5 c7-c8=Q, winning.



2	c5-c6!!	b7xc6
3	a5-a6	

And the promotion of White's a-pawn cannot be stopped.



KINGS, KNIGHTS AND PAWNS

After pressing NEW GAME and seeing **PG** displayed on the LCD, if you press the KNIGHT key the computer will be ready to start play from the above position, with only the kings, knights and pawns on the board.

Even in a symmetrical position such as this, it is very easy for an unsuspecting player to overlook a simple threat.

1	Nb1-c3	Ng8-f6

This move appears to be a serious mistake because it does not take into account White's threat. Safe moves for Black include 1 ... Nb8-c6 or 1 ... a7-a6.

2	Nc3-b5	Nb8-a6

Defending the c7 pawn.

3	Nb5xa7	

So White has won a pawn. Does this mean that the game will be a relatively easy win for White? Not at all.

3	...	c7-c6!

The white knight on a8 cannot escape and now Black is threatening to march his king to b8 and pick up the errant knight.

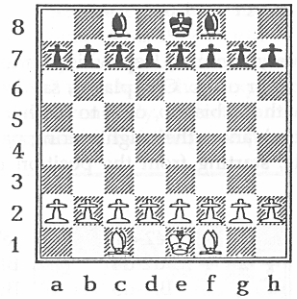
4	Ng1-f3	Ke8-d8
5	Nf3-g5	Kd8-c7
6	Ng5xf7	Kc7-b8

White is already two pawns up but his knight on a7 is attacked and has nowhere safe to go. Under the circumstances White extracts as much as he can for his knight:

7	Na7xc6+	d7xc6

An interesting choice. Should Black capture the knight with the d-pawn or the b-pawn? If Black captures with the b-pawn then White will have a "passed" a-pawn. The a-pawn will not have any enemy pawns to oppose it on its path to promotion and so Black will need to use his king or one of his knights to keep the a-pawn under observation. If Black captures on c6 with his d-pawn he leaves the pawn on e7 "isolated", that is to say, it has none of its own pawns on adjacent files to protect it. But by capturing on c6 with his d-pawn, Black avoids leaving White with a passed pawn, and although the black e-pawn (on e7) represents a weakness, it is less important than allowing White a passed pawn. So 7 ... d7xc6 is stronger than 7 ... b7xc6.

After recapturing on c6 Black has won a knight for 3 pawns. In pure material terms a knight is worth roughly the same as 3 pawns, but in this position White has no passed pawns and none of White's pawns is any kind of a threat to Black, so Black has a clear advantage.



KINGS, BISHOPS AND PAWNS

After pressing NEW GAME and seeing **PG** displayed on the LCD, if you press the BISHOP key the computer will be ready to start play from the above position, with only the kings, bishops and pawns on the board.

The bishop is often a mobile piece but it is important that it does not get hemmed in and even trapped by the enemy pawns. Here is an example of what can happen from the above position.

1	e2-e4	e7-e5
2	Bf1-b5	a7-a6
3	Bb5-a4	b7-b5
4	Ba4-b3	a6-a5

Can you see what Black is threatening?

5	d2-d3??	

White is anxious to get his c1 bishop into play and completely overlooks Black's idea. Better moves, for example, would be 5 a2-a4 or 5 c2-c3.

5	...	a5-a4
6	Bb3-d5	c7-c6

White's bishop on d5 is attacked and has no safe place to go, so White loses a bishop in return for only a pawn.

THE TRAP THAT BEAT BOBBY FISCHER

There is a very common trap which almost all beginners fall into at some time or other. One player, say White, captures a pawn at a7 or h7 with his bishop, only to see his bishop trapped when his opponent advances the neighbouring pawn one square. Here is an example, starting from the position in the previous diagram.

1	e2-e4	e7-e6
2	d2-d4	Bf8-d6
3	Bf1-d3	Bd6xh2??
4	g2-g3!	

So Black has won a pawn but the bishop on h2 is now shut in by the white pawn chain on f2 and g3. Black must act quickly to try to save his bishop.

4	...	h7-h5

Black's plan is to advance the pawn to h4, then to exchange pawns on g3 and finally to capture on g3 with his bishop, extricating the bishop. Alternatively, when the black pawn advances to h4, if White captures (g3xh4) then the black bishop can escape from h2. But here this plan is too slow.

5	Ke1-f1	

Black has no satisfactory way to meet the threat of Kf1-g2.

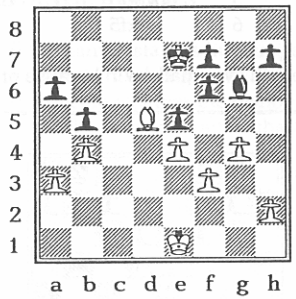
5	...	h5-h4

Of course, White must not now play g3xh4 because then the bishop on h2 would escape. This is one of the ideas behind the advance of Black's h-pawn.

6	Kf1-g2	h4xg3
7	f2xg3	

And on the next move Black loses his h2 bishop. Even though Black could play 7 ... Bh2xg3, the material advantage of a bishop for two pawns is normally sufficient to guarantee a win.

Amazingly the famous American Grandmaster Bobby Fischer lost the first game of his 1972 World Championship match against Boris Spassky in exactly this manner. Fischer (black) grabbed a pawn at h2 with his bishop, expecting the bishop to be able to extricate itself eventually. Unfortunately for Fischer he was wrong - he lost the bishop and the game (but he won the match).



ACTIVE BISHOP v PASSIVE BISHOP

In this position White has a well posted bishop in the centre which is free to manoeuvre over much of the board. Black's bishop, in contrast, is "biting on granite". It has no scope because of the white pawn chain: e4, f3, g4. If Black were to try the move ... h7-h5, to break open the prison bars, White would simply respond with h2-h3, so that if Black exchanged pawns on g4 White could recapture with the h-pawn, thereby keeping the prison intact. So although White's bishop and Black's bishop have the same material value, Black's piece is useless to him. White already has the unstoppable threat of Bd5-b7, picking up the a6 pawn.

1	...	Ke7-d6
2	Bd5-b7	

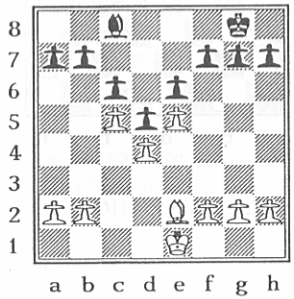
The attempt to trap Black's bishop by 2 h2-h4 (threatening 3 h4-h5) does not work and, in fact, would be a serious mistake because it allows 2 ... h7-h5 under favourable circumstances - White would no longer have the reply h2-h3 at his disposal.

2	...	Kd6-c7
3	Bb7xa6	Kc7-b6
4	Ba6-c8	Kb6-c7

The only safe squares for the white bishop are a6 and f5, and if the bishop returns to a6 then the black king returns to b6. So White plays

5	Bc8-f5	Bg6xf5
6	g4xf5	

And White will eventually win because of his extra pawn.



"GOOD" BISHOP v "BAD" BISHOP

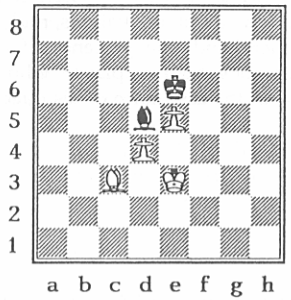
We refer to a bishop that has plenty of scope as a good bishop and one which is restricted by its own pawns as a bad bishop. In the above position the black bishop on c8 is bad because its own pawns at e6, d5, c6 and b7 create what is almost a coffin, keeping the black bishop out of play for several moves.

In order to escape from behind this pawn chain Black must go through the somewhat tortuous manoeuvre: ... Bc8-d7, ...Bd7-e8, ...f7-f6 and ...Be8-g6 (or ...Be8-h5). The problem with this plan is that it takes 4 moves to carry out and in the meantime White will be doing something active. It is rare in chess to be given the luxury of 3 or 4 "free" moves to carry out a plan without the opponent being able to use his reply moves very productively.

Contrast the restricted scope of the bishop on c8 with that of the "good" white bishop on e2. This bishop is ready to come into play on the Q-side or K-side, whichever is appropriate. It is also able to switch from one side of the board to the other very rapidly.

WHEN TO EXCHANGE BISHOPS

There will be many instances in your games when you are unsure about whether to exchange off a particular bishop. A useful rule is to first decide whether the bishop is "good" or "bad". In general you should be happy about exchanging a bad bishop for a good one or for an enemy knight.



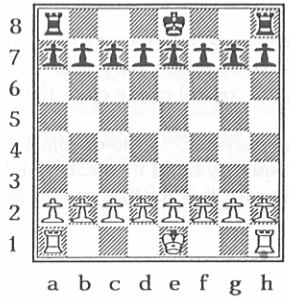
"OPPOSITE COLOURED" BISHOPS

The above position provides an excellent example of what are called opposite coloured bishops. This does not mean that White has one bishop and Black has one bishop. It means that each player has only one bishop and they stand on squares of opposite colours. Here, for example, White has a bishop on a dark square whereas Black has a bishop on a light square. What then is the significance of opposite coloured bishops?

If you think about this position you will soon realise that half of the squares on the board are completely safe for each player. Black's king, for example, cannot be dislodged from the e6 square because it can *NEVER* be checked by the white bishop, and by leaving his own bishop occupying or controlling the d5 square Black prevents his opponent from advancing the pawn from d4 to d5.

To put it very simply, Black can simply move his bishop back and forth between the squares (for example) a8, d5 and h1, and refuse to move his king. There is absolutely no way that White can then make progress. So although White is two pawns ahead, and they are both passed pawns, White can do no more than draw.

Since the presence of opposite coloured bishops very often heralds a draw in the endgame, if you find yourself behind in material you should always try to trade off the bishops and knights in such a way as to leave opposite coloured bishops on the board, preferably without any knights, rooks or queens on the board. On the other hand, the presence of opposite coloured bishops can sometimes help a player who is attacking his opponent's king with the assistance of his queen.



KINGS, ROOKS AND PAWNS

After pressing NEW GAME and seeing **PG** displayed on the LCD, if you press the ROOK key the computer will be ready to start play from the above position, with only the kings, rooks and pawns on the board.

There are two important rules to remember about using your rooks. The first and most useful is that you should nearly always try to place your rooks on "open" files, that is columns of squares (such as the column from a1 to a8) which have no pawns on them. A rook on an open file has plenty of scope to advance at the correct moment into the enemy camp.

1	0-0	0-0

We use the symbols 0-0 to indicate castling king's side.

2	c2-c4	c7-c6
3	d2-d4	d7-d5
4	c4xd5	c6xd5
5	Rf1-c1	

Now, after 5 ... Rf8-c8, it would be a mistake for White to play 6 Rc1xc8+ because then Black's recapture 6 ... Ra8xc8 would leave BLACK in command of the only open file on the board. Black would then follow up with 7 ... Rc8-c2, with a dominating position. (The second rule for rooks is that they are very well

placed on their 7th rank in the endgame. For Black this means putting the rooks on the rank numbered 2 in the above diagram.)

After 5 ... Rf8-c8, White should continue with the plan: Kg1-f1, Kf1-e1, Ke1-d1, followed only now by Rc1xc8 and then Ra1-c1, challenging for control of the open file.

If, instead of playing 5 ... Rf8-c8, Black forgets about the open file, White can quickly build up a completely overwhelming position. Watch how easy it is for Black to go astray.

5	...	e7-e6?

This innocuous move probably loses the game for Black.

6	Rc1-c7	b7-b6

Safeguarding the b-pawn.

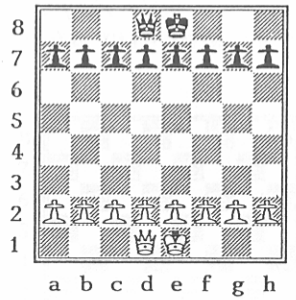
7	Ra1-c1	

Now there is no way that Black can challenge White's control of the c-file.

7	...	g7-g6
8	Kg1-f1	Kg8-g7
9	Kf1-e1	Kg7-f6
10	Ke1-d2	

White will continue with Kd2-c3, Kc3-b4, Kb4-b5, Kb5-a6 and then Rc7xa7, winning the a-pawn at once and the b-pawn soon afterwards. Black is virtually helpless against this plan, which could not have worked if Black had neutralized the c-file.

This example demonstrates not only the importance of controlling open files with your rooks, it also illustrates the power of rooks on the 7th rank. All pawns start life on their 2nd rank (i.e. the opponent's 7th rank) and even in the late stages of the game there are often pawns still on their starting squares. By placing a rook on the 7th rank you therefore put pressure on your opponent's pawns and hopefully win one or more of them.



KINGS, QUEENS AND PAWNS

After pressing NEW GAME and seeing **PG** displayed on the LCD, if you press the QUEEN key the computer will be ready to start play from the above position, with only the kings, queens and pawns on the board.

The queen is the most active piece and can move around an open board with great speed. The most important advice to remember about the queens is - BE CAREFUL. Always think about every move that your opponent can make with his queen, in case one of them would cause you a serious problem. Here we can see how easy it is to overlook a powerful queen move.

1	e2-e4	d7-d6?

From the normal starting position with all 32 pieces on the board this would be a perfectly acceptable first move. In the above position, however, it is a fatal mistake that loses a pawn.

2	Qd1-h5

Threatening the pawn at h7.

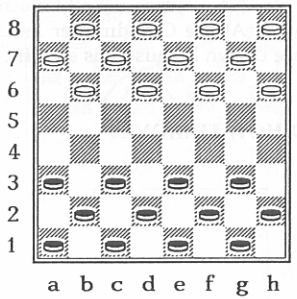
2	...	h7-h6
3	Qh5-b5+	

No matter how Black evades check, White will reply 4 Qb5xb7, and should win comfortably because of his extra pawn.

CHECKERS

(Draughts)

27 LEARN CHECKERS - THE RULES AND HOW THE PIECES MOVE



Checkers is a game for two players which is played on an 8 x 8 board, the same as a chessboard. At the start of the game the checkers 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 12 pieces. We call the two players Black (the player who is moving the black pieces) and White (the player who is moving the white pieces). Black always moves first and then the players move alternately.

WINNING A GAME

The object of the game is to leave your opponent without any moves. You can do this by capturing all of his pieces, so that he does not have any pieces left on the board, or you can do it by blocking his pieces so that none of them has any moves.

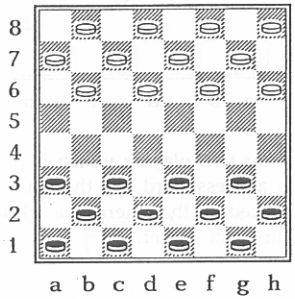
DRAWING A GAME

Sometimes you will find that neither player is able to win the game. This usually happens when most of the pieces have been traded off and only a few pieces remain, the same number on each side. (If a position is reached where one of the players has more

pieces than his opponent, the side which is ahead usually tries very hard to force a win, usually by trading off his opponent's remaining pieces.)

If a game is drawn, this result is usually reached by agreement between the players. At the Grandmaster level, roughly 96% of checkers games are drawn because it is so difficult to win against a careful player.

THE MAN AND HOW IT MOVES

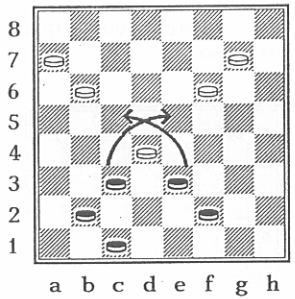


At the start of the game each of the 24 pieces is called a man. Later on a piece which is "crowned" (see page 64) is called a king.

A man may move one square diagonally, in a forward direction, to a vacant square. For example, in this position, at the start of a game, Black may move a man from:

a3 to b4
or c3 to b4
or c3 to d4
or e3 to d4
or e3 to f4
or g3 to f4
or g3 to h4

HOW TO CAPTURE AN ENEMY PIECE



A capture is made by jumping one of your pieces over an enemy piece and removing the enemy piece from the board. The capturing piece must land on a vacant square. In this position Black has the choice of two different captures:

The man on c3 can capture the white man on d4 by jumping over it, landing on e5 and removing the man on d4 from the board.

or The man on e3 can capture the white man on d4 by jumping over it, landing on c5 and removing the man on d4 from the board.

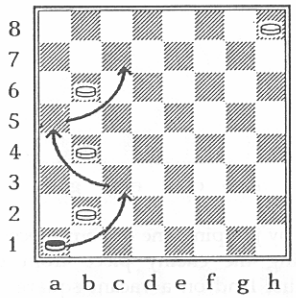
YOU MUST MAKE A CAPTURE IF YOU CAN

Captures are compulsory in checkers. If you can make a capture you must do so. If you do not see that a capture is possible and try to make a different (non-capturing) move, your opponent should point it out to you so that you can take back the non-capturing move and make the capture. If this happens when you are playing against the computer it will indicate an error (see section 34).

If you have a choice of captures, you may decide which one to play.

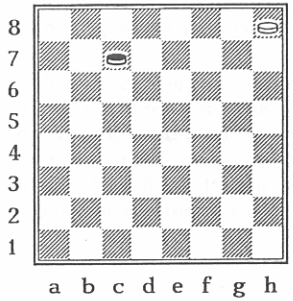
MULTIPLE CAPTURES

If you capture an enemy piece and your own capturing piece lands on a square from where it could capture a second enemy piece, then you **must** do so.

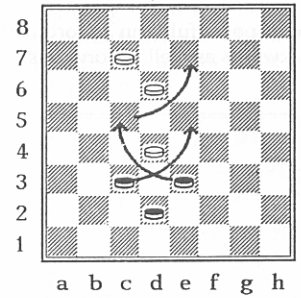


In this position the black man on a1 may capture the white man on b2, landing on c3. But from c3 the black man may continue to capture, and he must do so, by jumping to a5 thereby capturing the white man on b4, and then by jumping to c7, capturing the white man on b6.

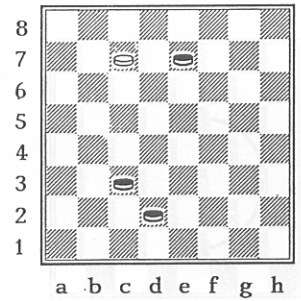
Here is the position that would arise after making this triple capture.



If one capturing possibility would capture 1 enemy piece and another capturing possibility would capture 2 or more enemy pieces, you do not need to make the largest number of captures. In the next position Black has a choice of two capturing possibilities.



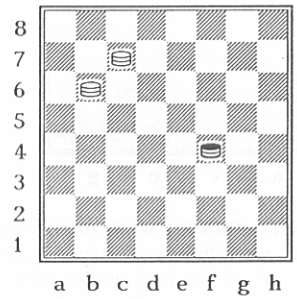
Black's man on c3 can capture the white man on d4, landing on e5 and removing the d4 man. But Black may instead capture the d4 man with his man from e3, landing on c5, and then continue the capturing sequence by jumping to e7, capturing the white man on d6. In this position Black may choose whichever possibility he prefers. If he chooses the double capture the checkers board will then look like the next diagram.



CROWNING A MAN AND HOW THE KING MOVES

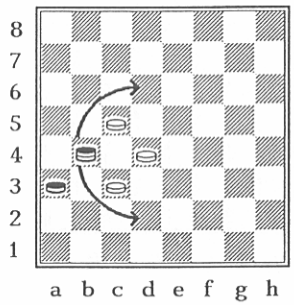
When a man reaches the far side of the board it is immediately "**crowned**" - promoted to a **king**. We show this on a traditional checkers board by placing a second man of the same colour on top of the man which has been crowned, so the kings are 2 men high.

A king is much more powerful than an ordinary man because kings can move backwards as well as forwards.



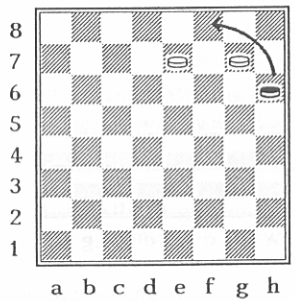
In this position Black's king on f4 may move to g5, e3, g3 or e5.

And in the next position Black's king on b4 can capture the white man on c3, jumping to d2, or it can capture the white man on c5, jumping to d6.



One point which often confuses beginners is that a man which makes a capture immediately before being crowned may **not** continue, as part of the same move, to capture an enemy man with the new crown.

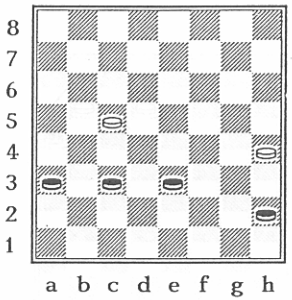
In this next position, for example, Black's man on h6 captures the white man on g7, landing on f8 and being crowned king. But Black may not then continue this move by capturing White's man on e7 with the king on f8. This allows White a move to escape, by moving the man away from e7.



HINTS FOR BEGINNERS

Winning Material

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 threaten to capture any of your opponent's pieces that do not appear to have an easy method of escape. Here are two examples.

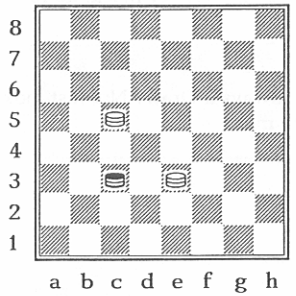


In this position it is Black's move and he threatens the white man on c5 by playing from c3 to b4. This threatens to jump to d6, capturing White's c5 man, and White is powerless to prevent this from happening, so White must lose the c5 man. In fact White is in serious trouble on the other side of the board as well, because the only move which his man on h4 can make would be to g3, and then the Black man on h2 can capture the g3 man by jumping to f4. So in two more moves Black will win the game.

In the next position Black has only one king while White has two, but it is Black's turn to move and he can regain his lost king. Can you see how he does it?

Black's king moves from c3 to d4. Although this puts it next to two white kings, neither of the white kings may capture on d4 because in each case the landing square is occupied by another white king. So White may not capture the black king. But that is not all. The black king on d4 now threatens both white kings, on

c5 and e3. Whichever king White moves, Black will capture the other one to level the game which should then end in a draw.



The most common mistake that beginners make is to put a piece on a square where it may simply be captured for nothing. So every time that you are about to make a move, spend a few seconds to ask yourself:

> *Can your opponent safely capture the piece that you are going to move?*

Back Row Men

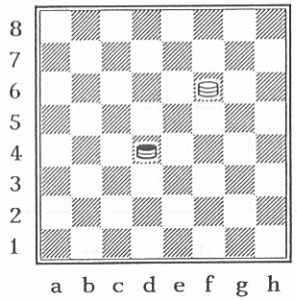
Material is not the only important factor in checkers. It is useful to try to keep your back row men on their original squares for as long as possible (a1, c1, e1 and g1 for White; b8, d8, f8 and h8 for Black). This is because if you have all four of these squares occupied by your own men it will not be possible for your opponent to crown any of his men.

One of the strategies which often works well in checkers is playing to run your opponent out of good moves, so that he will be forced to make a move which he does not want to play. Sooner or later you will be forced to move one or more of your back row

men and it is a good idea to remember which ones to move first. If you do have to move a back row man then unless there is a good reason to the contrary, move the corner man first (a1 for Black; h8 for White). And the next best back row man to move is two away from the corner (e1 for Black; d8 for White).

1 King v 1 King

Is 1 King v 1 King always a Draw? No. Just look at this position. It is White's turn to move.



If, for example, White plays from f6 to g7, Black replies by moving from d4 to e5.

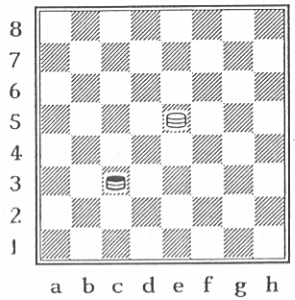
White will then have three options to try to save his king. He can move from g7 to any of the squares h8, f8 or h6, but in all three cases Black would reply by moving from e5 to f6, when White has no alternative but to throw himself upon the sword by moving his king to a square on which it can be captured.

Instead of moving from f6 to g7 in the diagram position, White could try playing from f6 to e7. Black then closes in for the kill by advancing from d4 to e5.

Again White has a choice of moves, but if he plays from e7 to d8 Black advances again from e5 to d6. And if White plays instead from e7 to f8, Black will play from e5 to f6. In each case White is forced to move away from the protection of the edge of the board and onto a square from which his lone king can be captured, which wins the game for Black.

The Double Corner

The dangers of being driven to a corner or an edge of the board are clear from the previous example. Here we see a slightly different position where again it is White's turn to move.



The difference between this position and the previous one is that here White's king can run towards the "double corner" - the two squares a7 and b8 (or towards the other double corner - g1/h2).

A double corner offers protection because both squares in the corner are on the edge of the board. A king in a double corner may, if it is vacant, move to the other square of the double corner, so by moving back and forth between the two squares of a double corner a king can be safe against a single enemy king. Let us see how this works out in practice.

We have seen how Black can force a win if White plays from e5 to f6 and Black replies with c3 to d4. So instead White plays from e5 to d6. When Black advances from c3 to d4 the White king runs from d6 to c7, and when Black advances again from d4 to c5, White's king moves from c7 to the double corner square b8.

Now White's position is completely safe. If Black advances from c5 to b6, White will play from b8 to a7, and if Black then plays from b6 to c7 White will respond by moving back from a7 to b8. White can never be driven out of the double corner so Black cannot force a win.

28 STARTING PLAY

The computer is powered by batteries as specified on the label near the battery compartment. Remove the lid on the base of the unit and install the batteries in their compartment, making sure that the polarity of the batteries is correct. If your computer may be operated using an AC/DC adapter, information concerning the adapter is on the rating label on the base of the unit.

When you load new batteries the □ symbol will be on and the computer will be ready to start a new game of **CHESS**.

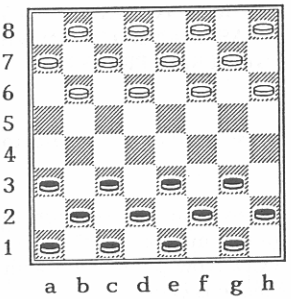
OCCASIONALLY AFTER INSERTING NEW BATTERIES OR CONNECTING AN ADAPTER THE COMPUTER MAY ACT ABNORMALLY, IN WHICH CASE PUSH A THIN OBJECT INTO THE "RESET" HOLE IN THE BASE OF THE COMPUTER AND PRESS DOWN ONCE.

If you have not just loaded new batteries, to switch on the computer press the ON key. The computer will remember the position which was on the board when you last switched it off, no matter whether you were playing chess or checkers.

To start a game of CHECKERS you need to press NEW GAME, and when **PG** appears on the display, press the KING key. You will then see the checkers symbol ● appear on the display, together with **GA** . Now press NEW GAME again. This clears the display except for the checkers symbol and also the ■ symbol, which shows that it is Black to move first. The computer is now ready to play a new game of checkers. If you have just installed the batteries or connected the adapter, or if you have just switched from chess to checkers, the computer will be on level 1, i.e. its weakest level of play.

29 THE CHECKERS PIECES AND THE INITIAL POSITION

Set-up the checkers men on your computer in their starting position, as shown in this diagram.



Checkers board set up for the start of a game.

Note that in Checkers it is Black's pieces which start the game at the bottom of the board and move up the board. This is different from chess where White starts from the bottom of the board and Black from the top.

Note that if your checkers computer comes with pieces that have pegs in their base, the pegs should be inserted into the holes in the centre of each square.

30 CHECKERS NOTATION

The computer communicates its moves to you using a system called "algebraic notation".

The files, or vertical columns of squares on the checkerboard, are identified by the letters a-h (looking at the board from Black's side, and reading from left to right). The ranks, or horizontal rows, are numbered 1-8, starting from the Black end. This means that every square can be named by giving the letter of its file and the number of its rank - like a grid reference on a map. For instance, at the start of the game the black men are on: a1, c1, e1, g1, b2, d2, f2, h2, a3, c3, e3 and g3.

To make it easier for you to identify each of the squares on the checkers board, they are all marked with their algebraic co-ordinates (for example, d2, e3).

31 MAKING MOVES

To make a move simply press down gently with the piece you want to move on its "from" square. The liquid crystal display (LCD) will display the colour symbol (■ if you are playing Black or □ if you are playing White). It will also display the letter and number corresponding to the "from" square. **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.**

Now press down with the same piece on the "to" square to complete the move.

Here is an example at the start of a new game. If you wish to move a man from c3 to d4, press with that man on the c3 square and you will see **C3** appear on the LCD. Now press down with that man on the d4 square and your move is completed.

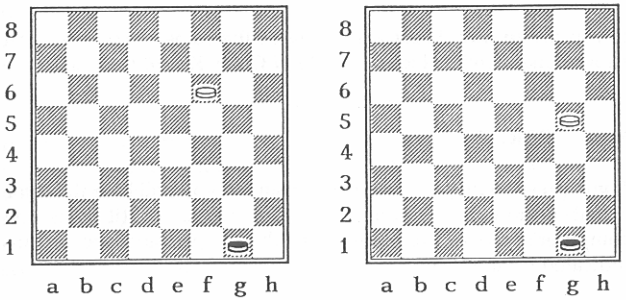
32 THE COMPUTER'S MOVE

If the colour symbol on the LCD is flashing it means that the computer is thinking about its move. While the computer is thinking, none of the keys has any effect, except for the MOVE key (see section 38).

When the computer has decided on its move the LCD will display its colour symbol. It will also display, flashing, the letter and number corresponding to the "from" square.

Press down with the computer's piece on the "from" square. The display will now change and you will see the letter and number of the "to" square, flashing. Press the computer's piece on its "to" square. The LCD will then display the □ or ■ symbol according to which player's turn it is next.

Here is an example.



Imagine that the computer is playing White. If it is the computer's turn to move from the position in the left hand diagram and it decides to move its man from f6 to g5, the □ symbol will be on and the display will show **F6** (flashing).

If you press down with the computer's man on the f6 square you will see the **F6** disappear from the display. In its place, **G5** will appear and start flashing. If you then press down with the computer's man on the g5 square the □ symbol will go off and the ■ symbol will come on, showing you that it is now Black's turn to move (in other words, it is your move next).

The position on the checkers board should then look like the one in the right hand diagram because you have moved the computer's man from f6 to g5.

33 THE RULES OF CHECKERS

Remember that your computer knows the rules of the game, including the rules about capturing and crowning. **It will never break any of these rules.**

Sometimes it may seem that the computer has made an irregular move, but what will have happened is that you will accidentally have made a mistake when entering a move (either your own move or one by the computer); or you may have accidentally put one or more of the checkers pieces on the wrong square during

the game. If this happens you should verify the locations of all the pieces by using "verify position" mode (see section 41).

If you are in any doubt about any of the rules of checkers you should take another look at "LEARN CHECKERS" (section 27).

34 ERRORS

If you press an inappropriate key or square you will hear the error signal (a low buzz). Complete your move, or (if it is the computer's move) continue normally by pressing the square indicated by the LCD.

If you press one of your pieces on its square but then decide not to move it after all, simply press down with it again. This clears the display, and you can make whatever move you like.

35 SPECIAL MOVES

CAPTURES

If the computer makes a capture, it will display its "from" square followed by the "to" square in the normal way. Then, after you have pressed down with its piece on the "from" square and the "to" square, the computer will display the capture square, flashing, followed by **0**, to remind you to remove the captured piece from the board. To do so you press down with the captured piece, whereupon its square stops flashing, and you remove the captured piece from the board.

If you make a capture, after you press down on the "to" square the computer displays this square and also flashes the capture symbol (:). This is to remind you that your move must be a capture. Move your piece to the "to" square and press it down. The display then shows the square of the captured piece, flashing, followed by **0**. Press down with the captured piece as you remove it from the board. After that you will see the computer's colour symbol, indicating that it is the computer's turn to move.

MULTIPLE CAPTURES

Sometimes the computer may make a multiple capturing move. After you have completed one jump for the computer it will immediately display the next part of its capturing move in the usual way.

After you have made all the jumps with the capturing piece the computer will flash the co-ordinates for the square of the first of your pieces which it has just captured and display **0** on the right of the LCD. Press this piece down on its square and then remove it from the board. The LCD will then show the square of the second piece captured (and so on).

If *you* make a multiple capturing move, after you have completed the first jump the display will still be flashing the capture symbol : to remind you that you must continue the capturing sequence with the same piece until no more captures are possible. Continue to make all the jumps and then you will see the square of the first captured piece, flashing on the LCD, accompanied by **0**. Press this piece down on its square as you remove it from the board. The LCD will then indicate the square of the next captured piece, and you continue to remove the captured pieces one by one until they have all been removed from the board.

CROWNING A MAN TO MAKE A KING

Press the "from" and "to" squares for the man in the normal way. The "to" square remains on the display, flashing, accompanied by **2**, to remind you to make the man into a king. To do so you simply press down on this square as you place the king on the board. If the move was a capture, the computer will now indicate the squares of the captured pieces in the usual way, and you press down with the pieces as you remove them.

36 WINNING THE GAME

If you or the computer makes a winning move, either capturing the opponent's last piece or leaving the opponent without any moves to make, the LCD will show either **0 1** (Black wins) or **1 0** (White wins).

37 NEW GAME

To start a new game press the NEW GAME key. The LCD will display

P G

and you should now press the KING key to confirm that you want to start a new game of checkers. The display now shows

G A

Now press NEW GAME again. The ■ symbol will be displayed and the computer is ready to begin. Note that before starting play, you may need to re-set the playing level as described in section 39.

When **P G** is displayed, instead of pressing KING to start a new game of checkers, you may press the NEW GAME key again if you prefer to play **chess** (with all the pieces on the board); or you could press the PAWN, KNIGHT, BISHOP, ROOK or QUEEN key to start a game of **chess** in one of the 5 teaching modes (see section 12). Or you could press LEVEL to play through a game in "famous games" mode (see section 26).

38 INTERRUPTING THE COMPUTER and CHANGING SIDES

If you press MOVE when the computer is thinking it will immediately make the best move it has found so far.

If you press MOVE when it is your move, the computer will swap sides with you and make the next move. Pressing MOVE at the start of the game makes the computer play Black.

Note that the MOVE key is inoperative on level 0 (multi-move mode) - see section 40.

39 LEVELS OF PLAY

There are 16 levels and a "multi-move" mode. The playing levels are numbered 1 to 16. Level 0 is multi-move mode, which allows you to make moves for both sides (see section 40).

If you have just installed the batteries or connected the adapter, or if you have just switched from chess to checkers, the level is automatically set to 1 (the weakest). On levels 1 and 2 the computer will often make deliberate mistakes. If you want to play on a higher level you need to select it as follows.

Changing Levels

To enter "change level" mode press the LEVEL key. The display will show the letter **L** and the current level number. To increase the level by 1 press LEVEL again. (Holding the key down increases the level more quickly.) When the level reaches 16 the next press on the LEVEL key will return it to 0.

Levels 1-6 take around 0-2 seconds per move.
Levels 7-10 take around 5 seconds per move.
Levels 11-13 take around 15 seconds per move.
Levels 14-16 take around 1 minute per move.

To exit from "change level" mode press any other key (except ON) or any black square. (Note that in Checkers, pressing a white square has no effect.)

40 PLAYING BOTH SIDES (MULTI-MOVE MODE)

This mode is useful if you want to use the computer as a checkers board and referee for a game between yourself and a friend, or if you wish to enter a special sequence of moves, for example the moves of a game which you have found in a checkers book.

To enter multi-move mode select level 0 as described in the previous section. You will then be able to make moves for both sides. When you have entered a move for one side the computer will not start to think about a reply move, it will wait for you to enter the move for the other side.

If you are using multi-move mode to play a game against a friend the computer will make sure that you both follow the rules of checkers. If one of you tries to make a move which is against the rules, the computer will sound the "error" signal (see section 34) and the impossible move must then be corrected before the game can continue.

If you are using multi-move mode to enter a special sequence of moves into the computer, once you have finished entering all the moves you may continue to play from the resulting position by changing levels, from level 0 (multi-move mode) to whichever of the other levels you prefer. Once you have selected the new level you may make the next move yourself in the usual way, or you may ask the computer to make the next move by pressing the MOVE key.

41 VERIFYING THE POSITION

To enter "verify position" mode, press VERIFY POSITION and the centre of the display will show

u

To verify what is on a particular square, press on that square. If the square is occupied then the LCD will display the appropriate colour symbol, followed by **u**, followed by a **1** (indicating a man) or a **2** (indicating a king). If the square is vacant, the display will show **u 0**.

To exit from "verify position" mode, re-press VERIFY POSITION (or press any other key except ON).

42 TAKE BACK

If you make a move which you realise is a mistake, after the computer replies you can take back the computer's reply and your own move. To take back a move press TAKE BACK, whereupon the LCD displays the "to" square of the last move, flashing. Press

this square, and the computer will flash the "from" square. Press down on this square as you move the piece back.

If the move was a capture the LCD will now display the colour symbol for the captured piece, the square that had been occupied by that piece (flashing), and **1** if the captured piece was a man or **2** if it was a king. Now press the square where the capture was made as you replace the captured piece on the board.

If the move taken back was a multiple capture the computer will lead you through all the stages of the capture sequence, starting with the last capture made. The process for each of the captures is eaxctly as described in the previous paragraph.

If you take back a move which "crowned" a piece, the flashing "to" square will be accompanied by **1** to remind you to replace your king with an ordinary man.

After taking a move back, you may continue the game by making a move in the normal way for the side whose turn it is; or you may press MOVE to make the computer carry on playing for that side; or you may press TAKE BACK again and retract the preceding move in the same way as before. (You cannot retract more than a pair of moves at any one time.)

43 SOUNDS

The beeper normally sounds whenever you press a key, and at certain other times. If you prefer to play without the sounds press SOUND to switch the sound off. Press it again to switch the sound on (you will then hear a double beep).

When the sound is off, the LCD will display **?** in all cases where it would normally give its audible error signal. Press any key or black square to clear the **?** from the display, then proceed as you would with the sound on.

44 MEMORY

If a game in progress has to be interrupted, the computer can be switched off (with the OFF/SAVE key) when it is your turn to move; it will then retain the game position in its memory while using a minimum amount of current.

45 SWITCHING OFF AND SAVING THE GAME

If you break off a game as in section 44, you may even put away the checkers pieces, since you can find out where they are when you resume the game simply by using "**verify position**" mode (section 41) or by writing down the locations of the pieces when you interrupt the game.

When you switch on again, the situation will be wholly unchanged, and the game can be resumed as before.

46 CHECKERS TEACHING

If you are learning checkers you may find it easier to begin the game from a simplified starting position. To do this you use a slightly different procedure when starting a new game.

First, press the NEW GAME key. The LCD will display

P G

and you should now press the KING key to confirm that you want to start a new game of checkers. The display now shows

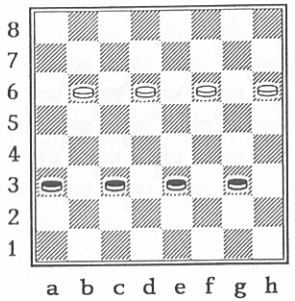
G A

Up to now this procedure is the same as when starting a new game of checkers with all the men on the board.

Now, re-press the KING key. You will find that successive presses on the KING key produce the following displays, in rotation:

Gb Gc Gd GE GA Gb (etc.)

If you press NEW GAME while **Gb** is displayed, the computer is ready to play a game with 4 men on each side: black men on a3, c3, e3 and g3, white men on b6, d6, f6 and h6.



If you start from this position you will learn how to force a man through the enemy defences and make it into a king.

TROUBLESHOOTING GUIDE

Your computer has been manufactured and tested to very high quality standards and it is most unlikely to have a fault. We have found in the past that almost all so-called "faults" can be traced to the user accidentally pressing a wrong key or moving a piece to the wrong square, which makes it appear later in the game that the computer is not operating as expected.

THE MOST COMMON "FAULT" TO BE FOUND WITH CHESS AND CHECKERS COMPUTERS IS THAT THE USER HAS DONE SOMETHING WRONG AND, WITHOUT REALISING IT, PUTS THE BLAME ON THE COMPUTER!

Often a "fault" is due to the user having misunderstood something about the way the pieces move. You may wish to consult the section "Learn Chess" or "Learn Checkers".

Just in case you do encounter a problem when using your computer we have prepared this troubleshooting guide.

THE DISPLAY SHOWS NOTHING

If there is nothing showing on the display and the computer does not react to any key press or to pressing any of the pieces down on its square:

1 If you are using a power adapter make sure that the adapter is the correct voltage and polarity, as shown on the label on the underside of the computer.

Also ensure that the adapter is plugged in properly to the computer and switched on at the mains (check the fuse in the mains plug).

2 If you are using batteries make sure that they are held firmly by the battery clips and that the positive tips of the batteries are all the right way round.

If you have had the batteries a long time they may have run down so try replacing them.

3 If the batteries or power adapter appear to be OK the computer may have been affected by a static discharge which might have caused it to "lock up". Press a thin object in the "RESET" hole in the base of the computer and press it down firmly once.

THE COMPUTER REFUSES TO MAKE A MOVE

If the computer has been playing normally but then refuses to make a move:

1 If the computer's colour symbol (□ or ■) is flashing then the computer is still thinking. Be patient if you can, or press the MOVE key and the computer will respond immediately with the best move it has found so far.

2 If your colour symbol (□ or ■) is on, the computer thinks that you have not made your last move. Make sure that the pieces on the board are on the same squares as those in the computer's internal memory. You can do this by using "verify position" mode (see section 17 for chess, or section 41 for checkers).

If the pieces all appear to be on the same squares as the computer thinks they should be, this means that it is still your turn to move.

THE COMPUTER REFUSES TO ACCEPT YOUR MOVE

If you make a move but the computer refuses to accept it as a move:

1 Make sure that you have completed your move by pressing down on the "to" square.

2 Chess

2a If you are playing chess and your move was castling, make sure that you have moved the rook as well as your king (see section 10).

2b If the move was an *en passant* capture, make sure that you have moved the capturing pawn in the correct way and that you also pressed down on the square of the captured pawn before you removed it from the chess board (see section 10).

2c If your move was a pawn promotion make sure that you pressed down on the promotion square with the newly promoted piece (see section 10).

2d If the check symbol + is on, the computer's last move has put you in check. Make sure that your reply move does not leave you in check.

2e If the check symbol is not on, look to see if your move puts your king in check, either by moving the king to a square attacked by an enemy piece or by moving something away from a square where it blocked an attack on your king by an enemy piece.

2f If the # symbol is displayed on the LCD the computer is in "set-up position" mode. You may have gone into this mode deliberately and not left the mode, or you may have pressed the SET-UP key by accident. Read section 18 to learn how to exit from "set-up position" mode.

2g If the symbols # and ! are displayed together, the computer is in "famous games" mode. You may need to complete a pair of moves for White and Black before pressing NEW GAME to exit from this mode. For details, see section 26.

3 Checkers

3a If you are playing checkers and your move was a capture, make sure that you have removed the captured piece by pressing it down on its square before taking it off the board (see sections 27 and 35).

3b If your move crowned a king make sure that you pressed down on the promotion square with the newly promoted piece (see sections 27 and 35).

Do You Know the Rules?

1 Make sure that your move was not against any of the rules of the game. If in doubt read through the parts of section 2 ("LEARN CHESS") or section 27 ("LEARN CHECKERS") which could affect whether your last move is against the rules.

If You Think the Computer is Cheating

If the computer makes a move which you believe to be against the rules:

1 Make sure that the pieces on the board are on the same squares as those in the computer's internal memory. You can do this by using "verify position" mode (see section 17 for chess, or section 41 for checkers). If the pieces all appear to be on the same squares as the computer thinks they should be, this means that nothing is wrong but that you have probably misunderstood one of the rules (so read section 2 again for chess [particularly if the computer's move was a castling move, a pawn promotion or an *en passant* capture] or section 27 for checkers).

2 Press the MOVE key to see if the computer makes a normal reply move. If it does you will know that the computer is working properly. Then you can use the "take back" feature (see section 19 for chess, or section 42 for checkers) and make a move of your own choosing to continue the game.

YOUR ADAPTER DOES NOT WORK

If the computer does not work with the adapter:

1 Make sure that the adapter voltage rating and connector are the correct type. Compare what is written on the adapter itself with what is on the rating label on the underside of your computer. Also check the polarity of the centre pin of the plug which plugs into the computer (see the label on the underside of the computer).

2 If you still do not know why the adapter does not work, check with a shop which sells adapters. They can easily test it for you.

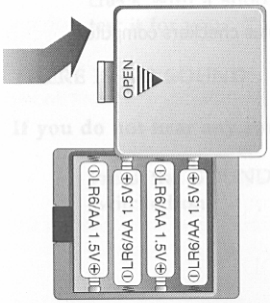
THERE IS NO SOUND

If you do not hear any sound when you press the keys:

Press the SOUND key to ensure that the sounds are switched on.

PRODUCT SPECIFICATION

PRODUCT	: 1,224 level chess plus checkers computer . Battery Operated.
MICRO-PROCESSOR TYPE	: 8 bit single chip
ROM SIZE	: 12K x 8
RAM SIZE	: 176 x 8
OSCILLATOR FREQUENCY	: 4 MHz
INTERNAL CLOCK FREQOENCY	: 2MHz
DISPLAY TYPE	: 4-DIGIT LCD
FEATURES	: - over 7,000 level settings - Sensory chess board - 40 famous games - 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 promotion, castling & en passant captures - Audible tone to indicate moves - Has teaching feature programmed into computer - ELO rating 1,400 points (estimated)
BETTERY SUPPLY	: 6VOLT (4 x AA) ***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 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.



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 pressing on the tab with your thumb and lifting up.
3. Insert four AA or LR6 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.

DEFECT OR DAMAGE

If a part of your game is damaged or something has been left out. DO NOT RETURN THE GAME TO THE STORE. The store doesn't have replacement parts. Instead, write to us at :

TIGER ELECTRONICS UK LTD
C/O CONSUMER PRODUCTS DISTRIBUTION
CUSTOMER SERVICE DEPARTMENT
UNIT 2
LOXLEY ROAD, WELLESBOURNE
WARWICKSHIRE, CV35 9 JY

In your note, mention the name of your game, the game's model number, and tell us briefly what the problem is..Also include sales slip, date of purchase and price paid. We will do our best to help.
WARRANTY 12 MONTHS FROM DATE OF PURCHASE

This product conforms to the EMC-Requirements as laid down by the Council Directive 89/336/EEC.