Tiger®

MODEL: 11-007
110070002IWTIE-01

Chess

VOICE MASTER

INSTRUCTIONS

PI-07380E-15

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 compu-
ter will function correctly.
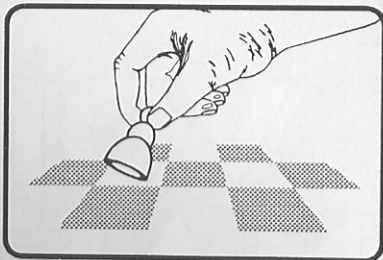
RESET SWITCH

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.

QUICK START

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

MAKING THE MOST OF YOUR COMPUTER Your
Tiger chess computer can teach you the game by
talking to you! As well as teaching the moves to
beginners, it can point out your mistakes during play
and alert you to your opponent's threats; for these
and other features designed to instruct you, see Part
Three of the manual ("Teaching Functions").

CHESS RULES The rules of chess are explained in
"Learn Chess", later in this manual. Your computer
knows the rules of chess – IT 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.

IF YOU HAVE JUST INSTALLED NEW BATTERIES AND THE COMPUTER DOES NOT RESPOND, PUSH A THIN OBJECT INTO THE "RESET" HOLD 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.
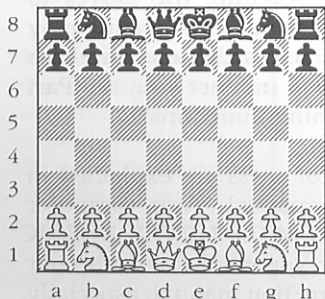
For those of you who are beginners or fairly new to the game of chess, the chess pieces and their symbols are identified on page 1.

Chess board set up for the start of a game.

START THE GAME The computer indicates squares and functions using a *Liquid Crystal Display* (LCD). Press the NEW GAME key twice, and you will see the "White" symbol □ appear in the display. You may now start the game.

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 the 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 which the captured piece occupied.

SETTING THE LEVEL OF PLAY The computer has 72 levels of play. Levels 1-4 are "fun levels" designed especially for absolute beginners, on which the computer plays a weak game. More serious levels start at **level 5**.

When first switched on, the computer is set at **level 10**. On this level, it will always move within 10 seconds. Notice that when it is your turn to move, the display "counts down" from 10 to 0 seconds, to enable you to play to the same time limit as the computer. When the

10 seconds are up, you hear six beeps. You may, however, ignore the countdown and take as long as you like over your move.

If you want to change the level, proceed as explained in **"Levels of Play"** (section 14 of the instruction manual).

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

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.
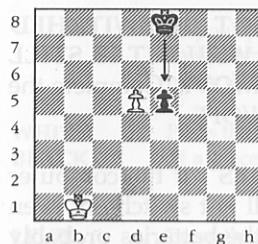
Black advances two
squares: E7 to E5.
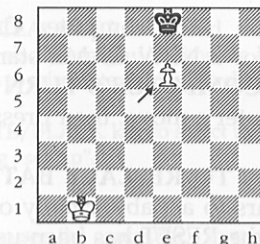
White captures "en passant"
by moving his pawn from
D5 to E6.

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).
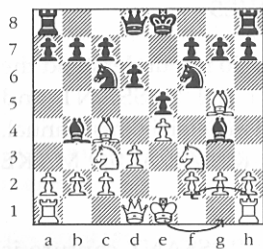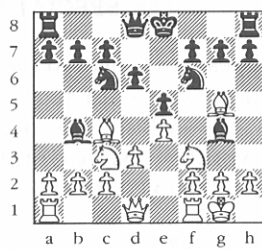
Before castling   *After castling*

SWITCH OFF AND SAVE THE POSITION When you want to stop playing, press the **ON/OFF** key. The computer switches off and remembers the position. To resume play, press the ON/OFF key again.

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 **ON/OFF.**

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

KEYS

PIECE KEYS These are the keys identified by the chess piece symbols. When you are "setting up" a position, press the appropriate piece key before putting a piece on its chosen square. These keys also have other functions (see "Style", "Rating", "Hint" etc.).

ON/OFF Press this key to switch the computer on or off. When you switch off, the computer remembers the current game position. It will resume play from this position when you switch on again.

TEACHING Press this key if you want the computer to give you "teaching" messages during play. Whenever you make a move which the computer thinks is a mistake, it will warn you and will be ready to explain what you have done wrong.

If you press TEACHING a second time, the computer will also warn you whenever its own move threatens to win material or give checkmate.

WHITE/ BLACK Press the WHITE/BLACK key to select the colour of a piece being "set up".

LEVEL Press this key to see the computer's current level of play. You can then press the LEVEL key again to increase the level by 1, or press MOVE to increase it by 10.

SET-UP Press this key to put the computer into "set-up mode". This allows you to alter the position on the board, or construct a new position.

NEW GAME Press the NEW GAME key *twice* to start a new game from the standard starting position. (For special uses, see "Tiger Mode", "Famous Games" and "How to Use Your Pieces".)

MOVE Press this 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. (For other

uses, see "Levels of Play" and "Setting Up a Position".)

SOUND   Press SOUND to switch the sound on or off.

VERIFY   Press this key if you want to "verify" the position, i.e. check which pieces are on which squares.

TAKE BACK   Press TAKE BACK if you want to retract the last move or pair of moves.

TIGER   Press NEW GAME followed by TIGER if you want to play a game in which the computer gives you a score for your moves.

VOLUME   Press the VOLUME key to alter the volume of the computer's sound output.

WHY?   If the computer gives you a warning or similar message, you can press WHY? for further explanation.

WHERE?   If you press WHERE? and then press one of your pieces, the computer will tell you where that piece can move.
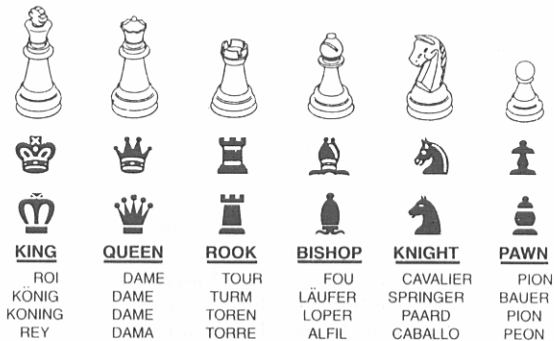
DISPLAY

The display shows 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, etc. Here is a list of all the symbols and other information which can be shown on the display.
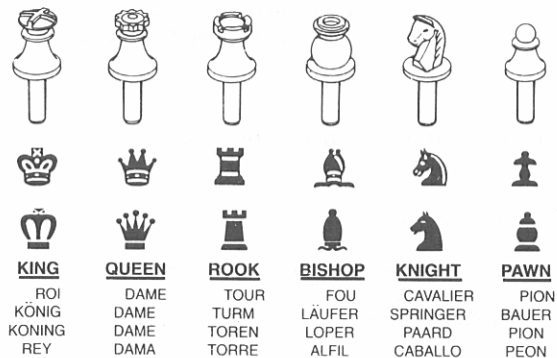
☐   This is the "White" symbol. It will be on when you are playing White and it is your turn to move. It will also be on when you are "setting up" a chess position in the computer and you have chosen to set up a white piece next. And it will be on when you are "verifying" the positions of the pieces in the computer's memory and the square you have pressed 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 shown together when the computer is displaying its style (see section 27).

+   The "Check" symbol. It is on whenever the computer makes a move which puts you in check.

◉   The "Teaching" symbol. It is displayed, static, when the computer is in "teaching" mode, i.e. when it is ready to warn you about your mistakes. (See Section 22.) If you select "teaching level 2", so that the computer will also warn you of its own threats, the Teaching symbol will "flash" on and off.

:   The "Capture" symbol. It is on, flashing, when the computer is indicating a move which captures a piece.

The "Set-up" symbol. It is on when you have put the computer into "set-up" mode (see section 25).

!   The "Rating" symbol — on when you are inspecting your rating or entering the result of a game (see Section 28). In "Tiger" mode (Section 23) this symbol "flashes" on and off.

\#
t The "Set-up" and "Rating" symbols are displayed together when you are playing through a "famous game" (see Section 29).

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.

CHESS PIECES & SYMBOLS
TABLE TOP MODELS

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

CHESS PIECES & SYMBOLS
PORTABLE MODELS

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

CONTENTS

PART ONE -- INTRODUCTION

1   **LEARN CHESS -- THE RULES AND HOW THE PIECES MOVE**
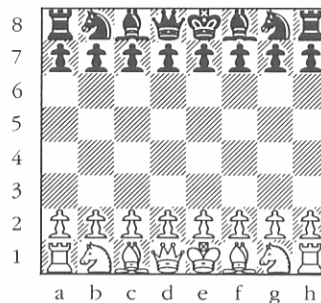
Chess is a game for two players which is played on an 8 x 8 board. At the start of the game the chess board is placed so that there is a white square at each player's bottom right-hand corner.

Each player starts with an army of 16 pieces. In the diagrams in this instruction manual, the pieces are represented by the following symbols:

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

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 putting it in a position where it cannot escape from attack.

A move which attacks the enemy king 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. The Tiger computer also does so.

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

It may happen that although your king is *not in check at present*, you cannot move any of your pieces without exposing your king to check. This situation is called "**stalemate**"; 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).
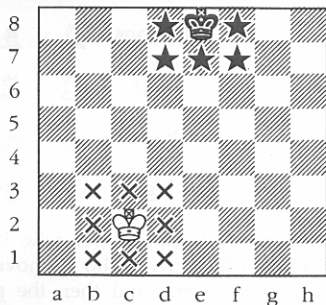
THE KING AND HOW IT MOVES

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 -- provided it would legally be able to move to that same square if the square was empty.
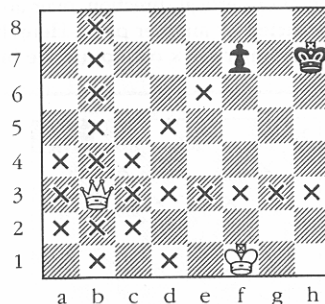
THE QUEEN AND HOW IT MOVES

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 can capture an enemy piece when it arrives on its new square. Here White's queen can move to any of the squares marked ×, or it can capture the black pawn.

2

3
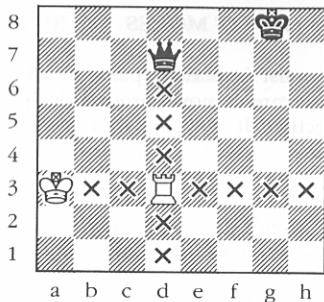
THE ROOK AND HOW IT MOVES

The rook is the second most powerful piece. It can move or capture in a horizontal or vertical direction, over any distance, as long as it is not obstructed by another piece. Here the white rook can move to any square marked × or capture the black queen.
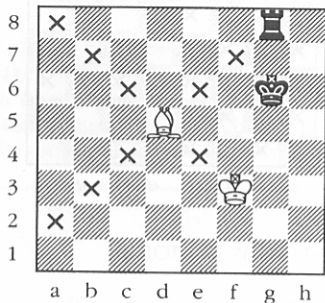
THE BISHOP AND HOW IT MOVES

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 over any distance as long as they are not obstructed by another piece. Here White's bishop can move to any square marked × or capture the black rook.
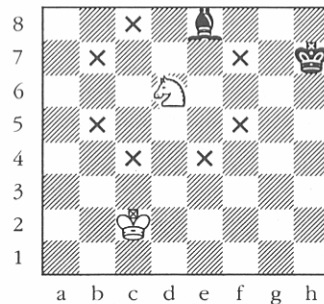
THE KNIGHT AND HOW IT MOVES

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 capture the black bishop.
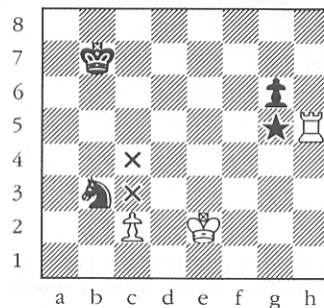
THE PAWN AND HOW IT MOVES

The pawns are the least valuable of all the pieces on the board, partly because they can never move backwards. From its starting square, each pawn may advance one square or two, at the player's choice; but after it has made its first move, it may only advance one square at a time.

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, it is nearly always chosen as the promotion piece.
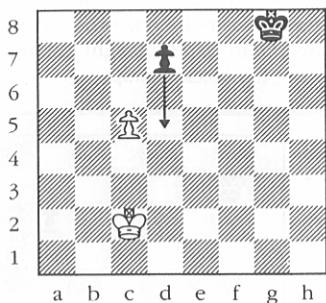
EN PASSANT CAPTURES

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 to a double pawn move, and only by a pawn which is side-by-side with the enemy pawn which has just made the double advance.

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 has jumped over the king, landing on the adjacent square.
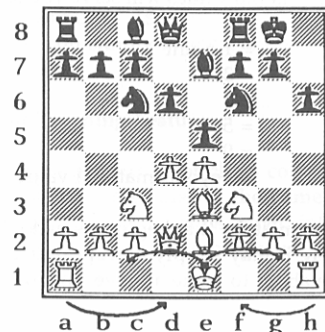
There are a number of restrictions that apply to castling and it is important that you learn all of them:

(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 undefended or insufficiently defended. The bigger your material advantage, the easier it will 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:

(a)   Can your opponent safely capture the piece that you are going to move?

(b)   Did his last move threaten one of your pieces?

(c)   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 try to castle. Finally, try to use your pieces to attack the central squares - the player who controls the centre usually has the advantage.

2   WHAT IS A CHESS COMPUTER?

A chess computer is a traditional board and pieces operating with electronic circuits which respond to the position of the pieces on the board. An advantage of the computer is that you can play chess against it when a human opponent is not available; you can play at any time, as often as you like. You can even switch off in the middle of a game and start again later; the computer will remember exactly where all the pieces are, even when it is switched off.

You must not think that you have no chance against the computer. It has many different levels of skill. 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.

The Talking and Teaching Features

An attractive feature of your Tiger chess computer is that it can talk to you -- explaining the rules of the game, teaching you to avoid mistakes, and giving various other information. It has several special features designed to help you learn the game and increase your standard of play.

(a) <u>For beginners</u>:

--   In any chess position, the computer can tell you what legal moves (including "special" moves) can be made with each piece.

--   If a move that you try to make is against the rules, the computer will tell you that your move is not legal, and can explain why.

(b) <u>For inexperienced players:</u>

--   The computer has a "teaching function" which tells you
      when you make a weak move and gives you a chance to
      correct it. The computer can also warn you when its own
      move threatens to win material or checkmate you.

--   You can practise handling each type of piece in turn. For
      this purpose, the computer allows you to start play with
      limited material on the board.

--   When playing in "Tiger mode", the computer awards you
      points for your moves.

(c) <u>For more experienced players:</u>

--   From watching the computer's play, you will learn
      standard chess openings. The computer has a built-in
      "openings book" containing about 5,000 moves.

--   The computer can assess your performance over a series
      of games and give you a "rating" number. As your play
      improves, the number should increase, thus enabling you
      to measure your progress.

--   The computer's memory contains 40 classic games by
      famous chess masters. The computer can demonstrate
      these games and let you try to work out the masters'
      moves for yourself.

PART TWO -- USING THE COMPUTER

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.

**OCCASIONALLY AFTER INSERTING NEW BATTERIES 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.**

You will now see the □ symbol on the liquid crystal display
(LCD), and the computer will be ready to start a new game. Its
"level" of playing strength will automatically be set to 10. (For full
details on the levels, see section 14.)

> On level 10, whenever it is your move, you will
> see a number on the display, "counting down"
> second by second, from 10 to 0. When "0"
> appears, you will hear 6 beeps. If you want to
> play at the same speed as the computer, you must
> make your move before the beeps sound. *You
> may, however, ignore the countdown and take as long
> as you like over your moves.*
>
> NOTE THAT LEVELS 1-4 ARE "FUN LEVELS"
> DESIGNED SPECIALLY ˙ FOR ABSOLUTE
> BEGINNERS, ON WHICH THE COMPUTER
> PLAYS A WEAK GAME. MORE SERIOUS
> LEVELS START AT **LEVEL 5**.

If you have not just loaded new batteries, switch on the computer
by pressing the ON/OFF 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 on page 1 of this instruction book will help you to learn the symbols for the various chess pieces. Set up the pieces on your computer in their starting position, as shown in the next diagram.
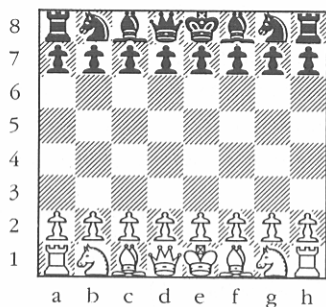
Chess board set up for the start of a game.

(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.)

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 computer's 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 square you have pressed.

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.

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 the same 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 check the locations of the pieces by using the "verify" feature (see section 16).

If you are in any doubt about any of the rules of chess, you should take another look at "Learn Chess" (section 1).

8   THE COMPUTER'S MOVE

If the colour symbol (□ or ■) on the LCD is "flashing" on and off, 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 the appropriate colour symbol, the letter and number corresponding to the "from" square (flashing), and the letter and number of the "to" square. Press down with the computer's piece on its "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.
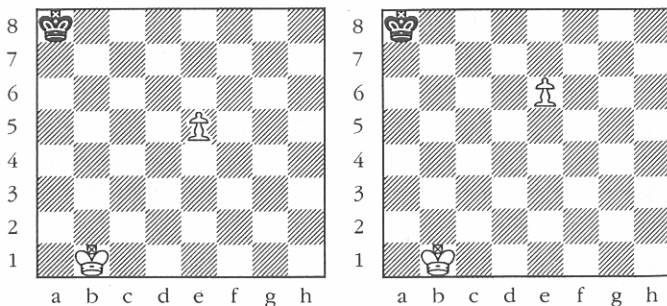
Imagine that the computer is playing White. If it is the computer's turn to move from the position in the left-hand diagram and it decides to advance its pawn from e5 to e6, the □ symbol will be on and the display will show E5 (flashing) and E6 (not flashing).

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 the pawn down 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

If you press a piece on its "from" square but then decide not to move this piece after all, simply press the same square again.

In general, 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.

If you try to move one of your pieces to a square where it cannot legally go, the computer will say "That move is not legal." If you like, you can ask for further explanation by pressing the WHY? key. The computer will then say something like:

"Your bishop on f1 is not allowed to move to a5."

Or:

"You are not allowed to castle because the king has moved."

Now start again to make a legal move.

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.
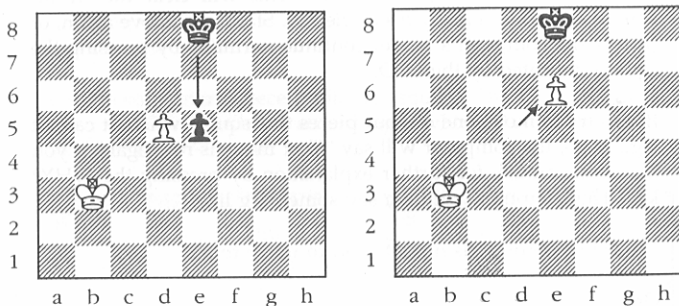
EN PASSANT CAPTURES

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 **O**. 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 6.)

To capture the black pawn on e5, move your pawn from d5 to e6 (as though the black pawn had advanced just one square, to e6, instead of two squares to e5). Your pawn's move is shown by the arrow in the right-hand diagram; carry it out in the usual way, by

pressing down with the pawn first on d5 and then on e6. 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 then shows the "to" square and 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 the piece. The LCD then flashes the promotion square. To complete your move, press down on this square as you place the new queen on the board.

Occasionally, instead of a queen, you may wish to promote to a rook, bishop or knight. In that case, when the computer displays the number 5 on the LCD, press the ROOK, BISHOP or KNIGHT key. This displays 4, 3 or 2 respectively. When the number for the desired piece is shown, press the "piece type" key again to select it. The promotion square then flashes. 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 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; press this square as you place the newly promoted queen on the board.

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 automatically display the "from" and "to" squares for the rook's move. 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 display H1F1, with "H1" flashing. Now press the rook on the h1 square, and "F1" starts flashing instead. Move the rook to the square f1, and press down with it to complete your move.

When the computer castles, the move is carried out in the same way.

Here is an example of how the board will look, before and after castling:--
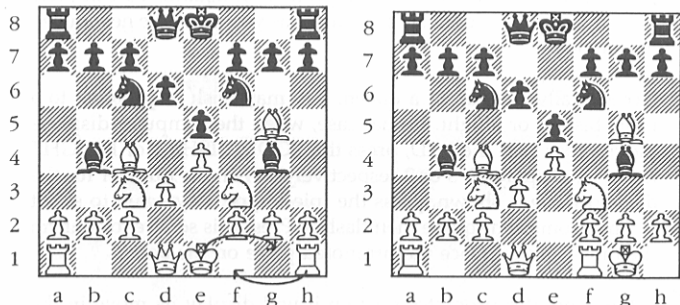
In the position shown in the left-hand diagram, imagine that you are playing White and you decide to castle king's side. First you press down with the white king on the square e1; your computer will display "E1" as your "from" square. Then you move the king to the square g1 and press down with it again. 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** to remind you to put your rook there. 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 finished 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 the computer puts your king in check, it will say "Check" and display the   +   symbol on the LCD.

If either player gives checkmate, the computer says "Checkmate" and the LCD will show either **1 0** (White wins) or **0 1** (Black wins).

If either player gives stalemate the LCD shows   **==** , and the computer says "Stalemate -- the game is a draw."

If either player makes a move causing a simple repetition of position (the same moves back and forth 3 times), the computer says "The game is a draw" and the LCD shows **3= .**

If the game is drawn under the 50-move rule, the LCD shows **50=** and the computer says "The game is a draw."

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.

NOTE: In some situations (if, say, you are in the middle of carrying out a move), pressing the NEW GAME key will have no effect. Before starting a new game you may need to complete a

particular operation, by doing one or more of the following:

-- 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 "flashing" the number 2, 3, 4 or 5, 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" mode as explained in section 25.

-- If the LCD shows ☉ (the "teaching" symbol), or # and ↑ together (denoting a "famous game"), you may need to proceed by pressing MOVE.

Having finished the operation, you should be able to press the NEW GAME key to get a new game.

Instead of pressing NEW GAME a second time (which starts a new game under normal conditions), you have various other options when the display is showing **PG**. You can press the TIGER key to play a game in "Tiger mode" (see section 23). Or you can press LEVEL to play through a "famous game" (see section 29). Alternatively, you may press one of the following:

	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 enable beginners to learn how to handle each type of piece in turn. For full details, see section 24 ("How to Use Your Pieces").

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.

Note that the MOVE key is inoperative on level 0 (i.e. when the user is playing for both sides) -- see section 15.

14   LEVELS OF PLAY

The computer has 72 different levels of playing strength. Selecting a higher level makes it play more strongly. When the computer is first switched on, its level is set to 10.

Level 0 is a special case -- on this level you can make moves for both sides (see section 15).

"COUNTDOWN" LEVELS

Levels 5, 10, 15, 20, 25 and 30 are "countdown" levels. On these levels, the computer will always make its move within the corresponding number of seconds -- 5 seconds per move on level 5, 10 seconds on level 10, and so on.

On these levels, you are invited to play to the same time limit as the computer. So for example on level 15, when it is your turn to move, you will first see "15" on the display -- then the number is reduced, second by second, until it reaches 0. When there are 5

seconds left, you will hear three warning beeps. When the 15 seconds are up, you hear six beeps.

This is like a familiar type of "lightning" chess, played with a "buzzer". However, if you overstep the time limit, the computer does not mind -- you can still make your move in the normal way.

The "countdown" levels are the only ones used in "Tiger" mode -- see section 23.

"FUN" LEVELS

Your computer has been programmed with 4 "Fun Levels" designed specially for absolute beginners.

On level 1 even a total beginner will be able to have fun and will often beat the computer, because it will make many very weak moves. Sometimes it will even lose its queen. On levels 2, 3 and 4 the computer will still make some weak moves, so that it will be good fun for beginners who have improved their play beyond level 1.

RATE OF PLAY

On the six "countdown" levels the computer will make each move within the fixed amount of time. On the other levels, its speed of play is as follows:

Fun levels:	Levels 1-4 take around 4 seconds per move.
Novice levels:	Levels 5-9, 11-14, 16-19 and 21-24 also take around 4 seconds per move.
Intermediate levels:	Levels 26-29 and 31-48 take around 30 seconds per move.
Stronger levels:	Levels 49-71 take around 2-3 minutes per move.
Advanced level:	Level 72 takes around 4-5 minutes.

If you set the computer to level 72 it can solve "mate-in-2" problems (see section 26).

CHANGING LEVELS

To inspect the current level, press the LEVEL key. The display will show the letter "L" followed by the level number. You now have the opportunity to change the level. Each further press on the LEVEL key increases the number by 1. To increase the number by 10, press MOVE. When the level reaches 72, the next press on the LEVEL (or MOVE) key will return it to 0.

When the display shows the level that you want, press any other key or any square. This clears the level from the display, and play may continue.

When you start a new game, this does not alter the playing level.

NOTE: 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 17), or receive a hint (section 18), the computer will stop using its openings book and will simply compute its moves in the normal way.

15   PLAYING BOTH SIDES

If you set the computer to level 0 (see section 14), you can play a sequence of moves for both sides. When you have entered a move for one colour, the computer will not start to think about a reply; it will simply wait for you to enter the move for the other colour.

On level 0 you can use the computer as a chessboard and referee for a game between yourself and 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 give an "error" message (see section 9) and the impossible move must then be corrected before the game can continue. (On level 0 the computer will not, however, give any "hints" -- see section 18 - or any "teaching" messages as described in section 22.)

19   SOUNDS

Normally, when you press a valid square or key, the computer "beeps", whereas a wrong press is followed by the "error" buzz or a message telling you that your move is not legal. If you prefer to play without these sounds, press SOUND. If you want to switch the sound on again, re-press the same key (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 error buzz or its "illegal move" message. A press on any key or square clears the "?" from the display and allows you to correct the error.

Note that when you press the TEACHING key to activate the teaching function (see Section 22), this automatically switches the sound on. (Conversely, if you switch the sound off, the teaching function is switched off too.)

To alter the volume of the sound, press the VOLUME key. You have a choice of three settings; if you press the key repeatedly, the volume switches from low to medium, then high, then low again. Each press produces a double beep to indicate the new volume setting.

20   MEMORY

If a game in progress has to be interrupted, the computer can be switched off (with the ON/OFF 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.

You may even put away the chess pieces, since you can afterwards find out where they are by using the "verify position" feature (section 16). Alternatively you can write down the locations of the pieces when you interrupt the game.

When you switch on again (by re-pressing ON/OFF), the situation will be wholly unchanged, and the game can be resumed as before.

PART THREE -- TEACHING FUNCTIONS

21 EXPLAINING THE MOVES

If you are learning the rules, you may ask the computer what moves can be made with any particular piece in a given position.

You can use this feature whenever it is your turn to play. Press the WHERE? key, then press down on one of your pieces. If this piece has any legal moves, the computer will tell you one of them, for example:

"Your knight on b1 could move to c3."

At the same time, "b1C3" appears in the display. You now have these options: --

(a) If you press *any* square to which your piece (in this case the knight on b1) could legally move, the computer assumes you are moving it to that square. The game then continues normally.

(b) You may press the same piece again, and the computer will tell you a different legal move if this piece has one available. By repeatedly pressing the piece, you can be told all its legal moves in rotation.

(c) You can press a different piece (as many times as you like), to discover whether and where that piece can move.

(d) If you press a key, or a square not covered by (a), (b) or (c), the display is cleared and the computer expects you to carry on playing by making a move in the usual way.

NOTE: If the piece you have pressed (after WHERE?) has *no* legal moves, the computer says (for example) "Your rook on h1 cannot move", and the display shows "-- --". If the piece can make a "special" move (see section 10), the computer will explain this move fully, for example:

"You could castle. Your king on e1 could move to g1; your rook on h1 could move to f1."

22 TEACHING AND WARNING MESSAGES

Certain typical kinds of weak move are frequently made by newcomers to chess. The computer can point out these mistakes whenever you make them, and give you a chance to correct them.

If you want the computer to do this, press the TEACHING key. The computer then says "teaching on", and the "teaching" symbol (⊙) appears on the LCD.

You will now find that after you make a move, the display will remain unchanged for a few seconds while the computer decides whether you have just made a mistake or not. If it thinks you have, it will ask "Are you sure?" and the display will show "SUrE".

You then have these choices:

(a) If you want to retract your move (because you can see what is wrong with it), press the TAKE BACK key and proceed as in Section 17.

(b) If you are happy to let your move stand, press MOVE. The computer makes its reply, and the game continues.

(c) If you want an explanation of what you have done wrong, press the WHY? key. The computer will then give you a message such as:

"You could win material worth three pawns"

or:

"That move loses material worth one pawn."

After such a message you have the same choices as before. You can press TAKE BACK and retract your last move; you can press MOVE so that your last move stands and the computer makes its reply; or you can press WHY? again, for a further explanatory message. This time, the message will mention either a good move which you missed, or a move that the computer can play to take advantage of your error. For example:

"Your queen on c3 could take my knight on f6"

or:

"My bishop on c8 can take your pawn on g4."

At the same time this move will appear on the display. You can now press WHY? (as many times as you like) to repeat this last message, or use TAKE BACK or MOVE as already explained.

TYPES OF MISTAKE

The types of mistake that the computer will detect and tell you about are as follows:

(a) Your last move put a piece *en prise*. This means that the piece you moved can either be captured for nothing, or else you can only recapture a piece of lesser value. If you make this type of mistake, the computer will respond to WHY? by saying "I can safely take that piece."

(b) You have allowed the computer to win material in some other way.

(c) You have allowed the computer to checkmate you next move.

(d) You failed to play a move which would have won material.

(e) You failed to play a move which would have checkmated the computer.

(f) Your move gave stalemate when you had more material than your opponent and could expect to win.

In the case of (b) or (d), the computer will respond to your first press on WHY? by saying how much material you have lost (or failed to win). For this purpose it uses the table of values that you can see on page 8. So if, for example, the computer can capture a rook (worth five pawns) and in reply you can only take a knight (worth three pawns), the message will be "That move loses material worth two pawns."

NOTE: The computer measures all advantages and disadvantages in terms of how many pawns it thinks they are worth. So if, for example, you are winning but allow the computer to draw by repetition, it will tell you that your move loses the equivalent of a certain number of pawns.

WARNINGS OF THREATS

If you like, the computer can warn you of its own threats as well as pointing out your mistakes. If you want it to do this, press the TEACHING key a second time. The computer says "teaching level two", and the ☉ symbol starts "flashing" on and off.

From now on, you will sometimes hear the computer say "Be careful!" when you have finished carrying out its move. (At the same time the display will show "CArE".) If you want more information, you can then press the WHY? key, and the computer indicates what it is threatening, for example:

"I am threatening to checkmate you."

Then, if you press WHY? again, the computer tells you the particular move it is threatening to play, against which you must find a defence. For example:

"My queen on d8 could move to h4."

This move also appears on the LCD.

As soon as you are ready, continue the game by making your reply to the computer's last move.

To switch off the "teaching" function, press the TEACHING key a third time. The computer says "teaching off", the ☉ symbol disappears from the display, and the computer will stop giving you the teaching (and warning) messages.

23 "TIGER" MODE

Your computer has a special mode of operation in which it gives you points for your moves. This is called "Tiger" mode.

To start a game in this mode, press NEW GAME, then press the TIGER key. The ꜚ symbol flashes on and off, to show that the computer is in Tiger mode. If the computer was not already set to one of the "countdown" levels (see section 14), it will automatically select one of them; this will be the next "countdown" level higher than the level that was previously set. (If the previous level was 31 or above, the computer selects level 5. If you alter the level in Tiger mode, you will find that only levels 5, 10, 15, 20, 25 and 30 are available.)

In Tiger mode, after each move you make, the computer will beep and display a number. (Usually it will need to think for a few seconds before doing so.) The pitch of the beep corresponds to the number of points the computer gives you for that particular move: the better it thinks your move is, the higher the beep. The number indicates your *total* score for the game so far. It will remain on the display for about 4 seconds, before the computer starts thinking about its reply.

While the score is displayed, you have the opportunity to press the TIGER key to display your current percentage, e.g.:

= 60

(A further press on TIGER switches back to the total score.)

Normally the maximum score for an individual move is 10, but you score a bonus of 50 for delivering checkmate. If the computer thinks your move is particularly weak (e.g. because it loses material), your score for that move will be negative. For this reason you may also have a negative total score. In that case the computer will not give you a percentage, but will instead display =---.

Note that in Tiger mode, the computer expects you to keep to the time limit for the current "countdown" level. If the six beeps sound, indicating that your time has run out, you will not be given a positive score for your move. If the move is weak, you may get a large negative score.

In Tiger mode there are certain restrictions. You cannot ask for a "hint", enter "set-up" mode, or take back the computer's move.

You can, however, retract your own move, provided you press TAKE BACK while your score is still displayed.

When you have finished using Tiger mode, you can simply start a new game under normal conditions by pressing NEW GAME twice -- see section 12.

NOTE: In addition to awarding points for your moves, the computer can give you its evaluation of the position. To make it do so, press the RATING key while the computer is displaying its move. (You can do this in Tiger mode or in normal playing conditions.) The LCD will then show a number, which indicates how much advantage the computer ascribes to one player or the other; the higher the number, the greater the advantage. If instead of a number the display shows "OPEN", this means that the position is in the computer's "openings book" (see section 14). To clear this display, press any key or square. The computer then indicates its move again, for you to carry out.

24   HOW TO USE YOUR PIECES: A STEP-BY-STEP COURSE

As explained in section 12, the Tiger chess computer offers you an easy way to start a game with limited material on the board. There are five types of "mini-chess" for you to choose from:

(1)   A game using kings and pawns only.
(2)   Kings, knights and pawns.
(3)   Kings, bishops and pawns.
(4)   Kings, rooks and pawns.
(5)   Kings, queens and pawns.

These simplified forms of chess are designed to give novices practice in handling each type of piece in turn. By starting a game in which each player has only the king and eight pawns, you will gain valuable experience as to how the pawns and kings interact with each other. Once you have understood this, you progress to the other forms of mini-chess where you will learn about the other piece types. This simple method has proved to be one of the most effective ways of teaching chess.

In the following pages we describe each type of mini-chess in turn, and explain some of the tactical and strategic ideas that apply to each piece. The chess moves are indicated in "full algebraic" notation. As you already know, each square on the chessboard can be identified by a letter and number. (See section 5.) To indicate a move, we state the "from" and "to" squares, separated by "-" or "x".

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

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

Also, 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. A "+" sign following the move indicates check.

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

while   c2-c4 means "**pawn** moves from c2 to c4"

and   Re1xe7 means "**rook** on e1 captures on e7".
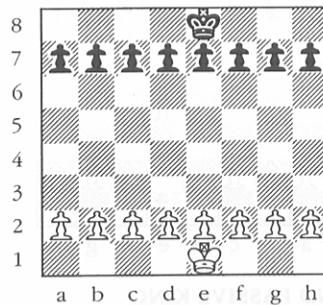
KINGS AND PAWNS

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 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 try the type of game which commences 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.
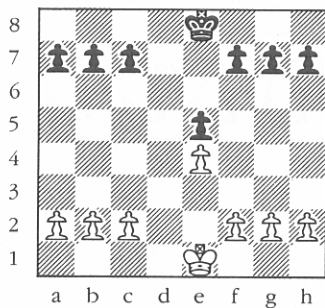
| 4 | Ke1-d2 | Ke8-f8 |

| 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.
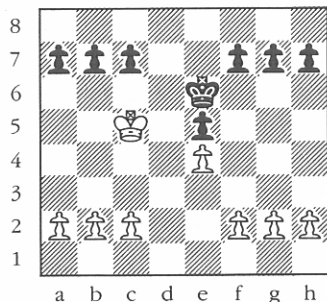
PROBING FOR WEAKNESSES

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 queen's 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.
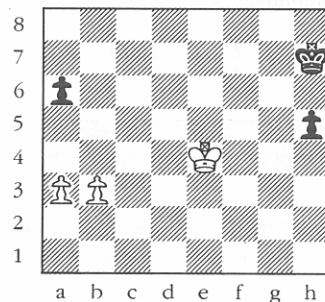
CREATING A "PASSED" PAWN -- WHICH PAWN TO ADVANCE FIRST

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.

A passed pawn is one that has no enemy pawns in front of it, on its own file or either of the adjacent files.

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 sets about creating 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
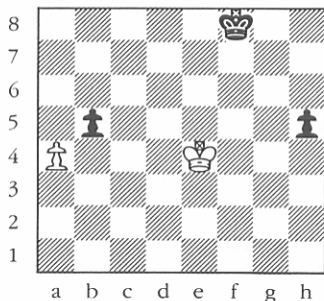
4	a4-a5!!

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.

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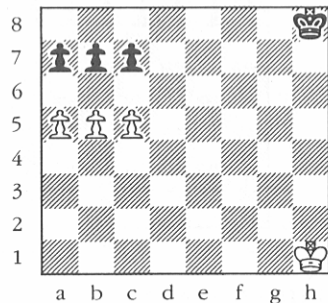
Here White has a very neat way to win. The idea is to force through one of his pawns to promotion before the black king can rush back to the queen's side. Can you see how?

1	b5-b6!!	a7xb6

If Black tries 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.
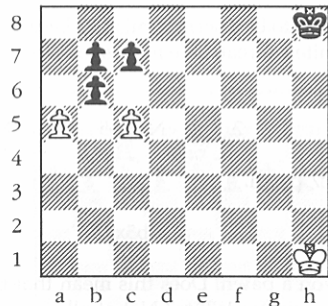
2	c5-c6!!	b7xc6
3	a5-a6	

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

39
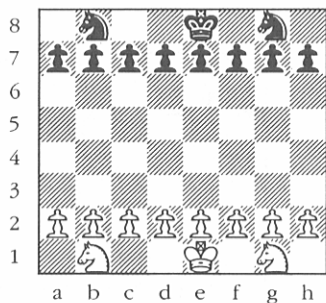
KINGS, KNIGHTS AND PAWNS

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 a7 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. However, although the black e-pawn (on e7) represents a weakness, it is less serious 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.
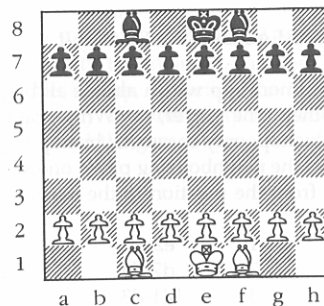
KINGS, BISHOPS AND PAWNS

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 (though he went on to win the match).
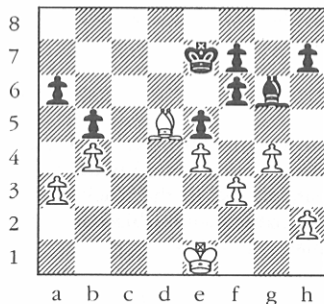
ACTIVE BISHOP v PASSIVE BISHOP

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.
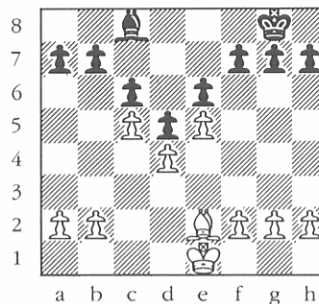
"GOOD" BISHOP v "BAD" BISHOP

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 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.
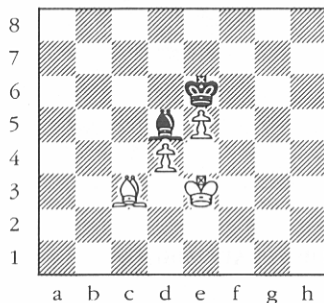
"OPPOSITE COLOURED" BISHOPS

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 move his bishop back and forth between (for example) the squares 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 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.
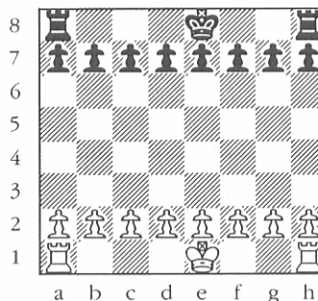
KINGS, ROOKS AND PAWNS

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 the 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, but also 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.
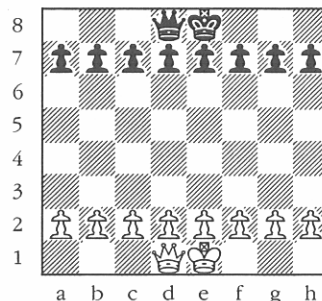
KINGS, QUEENS AND PAWNS

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.

PART FOUR -- ADVANCED FEATURES

25   SETTING UP A POSITION

Sometimes you may want your computer to solve a chess problem, or you may wish to set up a position from a book or magazine, to see how the program handles it.

To rearrange the pieces on the chessboard, start by pressing the SET-UP key. The symbol # will appear in the LCD, to show that the computer is in "set-up" mode. As long as this symbol is displayed, you may do any of the following: --

(a) To clear the chessboard, press the MOVE key; when the display shows "Cb", press MOVE again to confirm the command. (If you press a different key or a square, the command is cancelled.) Usually you will want to clear the board before doing anything else, but not if the position you want to set up differs only slightly from the current position.

(b) To insert a piece on the board, press the corresponding "piece type" key, then press the piece down on its square. Note that as long as the "White" symbol (□) is displayed, all pieces you insert will be white. To switch from White to Black or vice versa, press the WHITE/BLACK key.

(c) To clear an individual square, simply press the square without first pressing a "piece type" key.

When the position is ready, re-press the SET-UP key to exit from "set-up" mode and return to normal playing conditions. The # symbol disappears from the display. You can now press the MOVE key to make the computer play the next move; or you can carry out a move yourself and let the computer play the other side.

If the "White" symbol is displayed when you exit from "set-up" mode, it will be White's turn to move from the position you have constructed. So before pressing the SET-UP key to exit from the mode, you may need to press WHITE/BLACK to switch to the right colour.

ILLEGAL POSITIONS

When you exit from "set-up" mode, the program tests that:

(a) each player has one king;
(b) the player whose turn it is to move is not giving check; and
(c) there are no pawns on the 1st or 8th rank.

The position is illegal if it does not pass these tests. Play cannot continue from such a position. To denote an illegal position, the computer displays "??". You now have these possibilities:

(a) You can press VERIFY to check the locations of the pieces and find out what you have done wrong.

(b) You can press SET-UP again, to return to "set-up" mode and alter the position to make it legal.

(c) If you don't understand what is wrong, or want to abandon the position you have been setting up, you can simply start a new game by pressing the NEW GAME key twice.

NOTE: 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 as follows. First press the NEW GAME key twice, to return to the starting position. Then put the computer in "set-up" mode by pressing the SET-UP key. Now leave the rooks alone while you rearrange other pieces as appropriate -- by removing them from the board individually and re-inserting them. To make castling with a particular rook impossible, remove the rook and re-insert it.

26   SOLVING CHESS PROBLEMS

The chess problems found in many chess columns in newspapers, or in chess books or magazines, normally have a caption which says something like "White to play and mate in 2 moves". This means that the solver must find a move which enables White to give checkmate on the following move, no matter what reply Black makes in the meantime.

Your computer can solve any chess problems for mate in two moves, unless they involve promoting a pawn to a knight, bishop or rook (which is exceptional).

First you need to "set-up" the problem position, as described in the previous section. Make sure the computer knows which side is to move. After coming out of "set-up" mode, select level 72. Then press the MOVE key so that the computer starts thinking. Once it has solved 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 carry a move out, the computer will reply with a checkmating move.

If you set up a position for level 72 but there is no way to force checkmate in 2 moves, the computer will simply make the best move it can find.

27   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.

28   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. Your performance in each game is recorded -- if you want it to be -- in the form of a "rating" number, and the computer will work out your average rating over a series of games.

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 organization, based on the results you obtain when participating in supervised chess tournaments.

HOW TO FIND OUT YOUR RATING

If you want your performance in a particular game to be "rated", you must carry out the following procedure *before starting the next game*:--

First, press the KNIGHT/RATING key. The LCD displays the "rating" symbol (↑) together with your previous (average) rating. To begin with, this will be 1,000.

Now press:

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

Then press KNIGHT/RATING again, to confirm your input. (Any other press would cancel it and clear the rating from the display.)

The display now shows a number, "flashing" on and off. This is your "performance rating" for this individual game.

If you press KNIGHT/RATING once again, you will see another number (not flashing), which represents your new overall rating. This takes into account all previously rated games including the one you have just been playing. By further presses on the KNIGHT/RATING key, you can switch between the static and the flashing number as many times as you like. To clear the rating from the display and return to normal playing conditions, simply press any other key or square.

You may also inspect your current rating during a game, by pressing the KNIGHT/RATING key when it is your turn to move. This will be the rating based on the games you played before the current game started. To clear the display, press any key other than QUEEN, ROOK, BISHOP or KNIGHT.

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.

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;

(b)   you ask the computer for a hint;

(c)   you interrupt the computer or swap sides with it;

(d)   you play moves for both sides;

(e)   you are playing from a position you "set up";

or   (f)   you make use of the "teaching" feature (see section 22).

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.

Also note that you cannot display your rating in "Tiger" mode (see section 23).

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 it may go down (if you were previously rated above the computer's strength); 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 examples because you are thinking more. The computer's rating system takes this into account; 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.

29   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. The LCD will then show **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 instead you press MOVE, the number increases in steps of 10). 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. You will then see the symbols # and ↑ displayed together, to show that the computer is operating in "famous games" mode.

You are now ready to guess White's first move in the game you have selected. Press down with the piece that you think should be moved. If you are right, the computer gives a double "beep" 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 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.

In many chess positions there is, of course, 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.

Eventually, after playing a move by White and displaying your scores, you will hear a series of 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 as described in section 12.

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 which is explained in section 24.)

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.

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 chess computer is not operating as expected.

**THE MOST COMMON "FAULT" TO BE FOUND WITH CHESS
COMPUTERS IS THAT THE USER HAS DONE SOMETHING
WRONG AND, WITHOUT REALIZING 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".

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 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.

2   If the batteries 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 16). 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. If the computer says "That move is not legal", try pressing the WHY? key for further explanation.

2a   If 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, look to see if the computer's last move put you in check and if so, 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" 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 25 to learn how to exit from "set-up position" mode.

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 1 ("Learn Chess") which could tell you 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 16). 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 1 again -- particularly if the computer's move was a castling move, a pawn promotion or an *en passant* capture).

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 17) and make a move of your own choosing to continue the game.

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

MODEL NO.	:	11-007/ 738
PRODUCT	:	Chess computer with voice teaching system
		Battery Operated.
MICRO-PROCESSOR TYPE	:	8-bit single chip
ROM SIZE	:	256X8
RAM SIZE	:	128X8
OSCILLATOR FREQUENCY	:	4MHZ
DISPLAY TYPE	:	4-DIGIT LCD
FEATURES	:	-Voice Teaching System
		-Sensory chess board
		-LCD display indicates moves & other information
		-Position verify / position set-up
		-Take-back moves
		-Long term memory
		-Thinks on opponent's time
		-Detects draws by 50 move rule, 3-fold repetition, & stalemate
		-Pawn promotion, castling & en passant captures
		- Audible tone to indicate moves
		-Has practice feature programmed into computer
		-ELO rating 1,400 points (estimated)
BATTERY SUPPLY	:	6 VOLT(4XAA)-
		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.

NOTES: This product is not designed to be immune from the effects of electrostatic discharge, strong electromagnetic radiation or other electrical disturbances since malfunction under such conditions is non-critical. The Reset Switch is included in the design to allow unit to be Reset to normal operation and a new game started in the event of malfunction.

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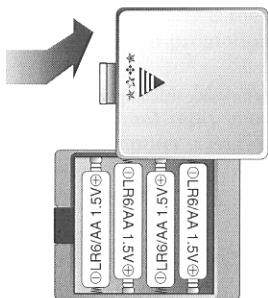
1. Place the game face down on a flat surface and locate the battery compartment on the bottom of the unit.

2. Open the battery compartment door by 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