



# **User Manual**

## **Instrucciones de manejo**

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## **1 INTRODUCTION**

Your chess computer is an ideal opponent. It is ready to play you at any time, as often as you like, at whatever level of skill you choose. Its small size makes it especially suitable for use on a journey in conjunction with a travelling chess set.

## **2 STARTING PLAY**

The computer is powered by three AAA batteries. Remove the lid on the underside of the machine and install the batteries in their compartment, making sure that the polarity is correct.

When you load new batteries the WHITE symbol will be on and the computer will be ready to start a new game on level 1.

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

Before starting a game you may adjust the computer's level of playing strength if you like. See section 11.

**NOTE :** Occasionally you may find that the unit acts abnormally when a new set of batteries is inserted. If this happens, simply turn the unit over, locate the hole near the center labelled **ACL**. Insert a small screw driver or a thin rod into the hole and press vertically down firmly for 2 secs. This operates the **ACL** switch and the unit should now be turned **ON** and ready for you to start a new game.

### **3 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.

In order to make it easier for you to identify each of the squares on the chessboard they are all marked with their algebraic co-ordinates (for example, e2, d3).

## 4 MAKING MOVES

To make a move simply press with the edge of the piece you want to move on its "from" square. The LCD will display the colour symbol (a WHITE square if you are playing white or a BLACK square if you are playing black) and the letter and number corresponding to the "from" square.

Then press down with the edge of the same piece on the "to" square to complete the move, or re-press the "from" square to cancel 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 the edge of that pawn on the e2 square and you will see E2 appear on the LCD. Now press down with the edge of that pawn on the e4 square and your move is completed.

## 5 THE COMPUTER'S MOVE

When the computer has decided on its move the LCD will display its colour symbol and the letter and number corresponding to the "from" square. Press down the computer's piece on this square. Then the computer will display the "to" square. Press the computer's piece on its "to" square. The LCD will then display the WHITE or BLACK symbol according to which player's turn it is next.

If the colour symbol on the LCD is flashing it means that the computer is thinking about its move. While the computer is thinking none of the keys has any effect, except for the MOVE key (see section 10).

## 6 ERRORS

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

If you press an inappropriate key or square you will hear the error signal (a double beep) and the display will show

?

Press any square or key to clear the error and continue normally. This will also clear the "from" square if one has already been selected. If you make an error when a square is being indicated on the LCD, press down on that square.

## 7 SPECIAL MOVES

### CAPTURES

Are treated normally with no special display.

### EN PASSANT CAPTURES

Press the "from" and "to" squares of the capturing pawn. The computer will then display the square of the pawn being captured. You should now press the square of the pawn being captured as you remove it from the board.

If the computer makes an en passant capture it will display the "from" square then the "to" square of the capturing pawn, followed by the square occupied by the captured pawn.

## PAWN PROMOTION

Press the "from" and "to" squares for the pawn in the normal way. The LCD shows the appropriate colour symbol and the number 5 (denoting a queen). If you wish to promote your pawn to a queen there is no need to change what is on the LCD. Simply press the QUEEN key to select it.

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

If the computer promotes a pawn it will display its move in the usual way (the "from" square then the "to" square of its pawn) then, when you have moved the computer's pawn to its promotion square the LCD will display the number corresponding to the promotion piece. This will usually be 5, indicating that the computer wishes to promote its pawn to a queen. You should now press the piece type key corresponding to this number, and finally press the promotion square as you place the newly promoted piece on that square.

## 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 of your rook. For example, if you are playing white and you decide to castle king's side, you press with your king on the square e1 followed by the square g1, and the computer will indicate the square h1 followed by the square f1.

## 8 CHECK, CHECKMATE, etc.

If the computer gives check it turns on the CHECK symbol and sounds 5 beeps.

If you or the computer give checkmate the LCD will show either 0 1 (Black wins) or 1 0 (White wins). If the computer is giving checkmate it sounds 10 beeps.

If either player gives stalemate the LCD shows =S.

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

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



## 9 NEW GAME

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

n G

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

Instead of pressing NEW GAME a second time to start a new game with all the pieces on the board, when the LCD displays nG you may press:

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

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

In some situations pressing the **NEW GAME** key will have no effect. If the LCD is showing a letter and a number, for example **E2**, press that square on the chessboard. If the LCD is showing a piece type (1, 2, 3, 4, 5 or 6) press the corresponding "piece type" key (**PAWN**, **KNIGHT**, **BISHOP**, **ROOK**, **QUEEN** or **KING**). If you are in set-up mode then exit from set-up mode. Having completed one of these operations you should now be able to press the **NEW GAME** key to get a new game.

## **10 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 you are thinking the computer will swap sides with you and make the next move.

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

## **11 LEVELS OF PLAY and PLAYING BOTH SIDES**

There are 16 levels numbered 0 to 15. Level 0 is multi-move mode, which allows you to make moves for both sides. This is useful if you want to use the computer as a chessboard and referee for a game between yourself and a friend, or if you wish to enter a special sequence of moves, for example the moves of a particular chess opening or the moves of a game which you have found in a newspaper or a chess book.

When the computer is first switched on its level is automatically set to 1 (the weakest).

To enter "change level" mode press the **LEVEL** key. The display will show the "level" symbol (the vertical lower left hand segment of the first digit) and the current level number. To increase the level by 1 press **LEVEL** again. If you hold down the **LEVEL** key the level number will rise quickly and once it reaches 15 the next press on the **LEVEL** key will return it to level 0.

Levels 1-5 take around 4 seconds per move.

Levels 6-10 take around 30 seconds per move.

Levels 11-14 take around 2-3 minutes per move.

Level 15 takes around 10 minutes per move.

If you set the computer on level 15 it can solve "mate-in-2" problems. These are positions in which it is possible for the player who moves next to force checkmate on his

second move, no matter how his opponent tries to defend. Problems of this type are often found in newspapers, chess magazines and chess books.

To exit from "change level" mode press any other key or square.

## 12 VERIFYING THE POSITION

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

u

in the left-hand digit.

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

To exit from verify position mode press any key other than **VERIFY POSITION**.

## 13 SETTING UP A POSITION

To enter "set-up position" mode press **SET-UP POSITION**. The display will show the side to move colour symbol, which also indicates the side whose piece will next be placed on the board. The computer will also display the set-up symbol.

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

If you wish to place a piece on an empty square press the appropriate "piece type" key, then press the square.

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

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

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

When you exit from set-up mode the program tests that: (a) each player has exactly 1 king; (b) the side to move is not giving check; and (c) there are no pawns on the 1st or 8th rank. If the position is illegal the computer displays the appropriate colour symbol and **??**. You can now use verify position mode (see section 12) to find out what you have done wrong. Or you may re-enter set-up mode or simply start a new game.

**N.B.** If you use set-up mode and create a position with one of the kings on its original square and one of its rooks also on its original square, the computer will assume that it has not lost castling rights. If you want the computer to be deprived of castling rights in that position, exit from set-up mode when you have set-up the position then re-enter that mode and delete and replace the rook.

## **14 TAKE BACK**

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

If the move was a capture the LCD will now display the colour symbol and the number corresponding to the captured piece (1=pawn; 2=knight; 3=bishop; 4=rook; 5=queen; 6=king). Press the piece type key corresponding to the captured piece and the computer will display the square on which the capture was made. Now press the square where the capture was made as you replace the captured piece on the board.

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

If the move taken back was a pawn promotion, the computer directs you to move the promoted piece back by indicating the "to" and "from" squares, then it displays the number 1 (because the piece moved was a pawn) whereupon you should press the PAWN key. Finally press the "from" square again as you replace the pawn on the board.

If the move taken back was a capture and a pawn promotion, press the "to" square, the "from" square, the "piece type" key (for the captured piece), the "to" square (as you replace the captured piece on the board), the PAWN key and finally the "from" square as you replace the pawn on the board.

N.B. Take-back resets the 50-move count and erases any repetition of position data, but restores castling rights where appropriate.

## 15 SOUNDS

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

## 16 MEMORY

If a game in progress has to be interrupted, the computer can be switched off, and will retain the game position in its memory while using a minimum amount of current. When you switch on again, the situation will be wholly unchanged, and the game can be resumed as before.

## 17 SWITCHING OFF

Press OFF / SAVE - the board position is retained in memory. You may even pit away the chess pieces, since you can find out where they are when you resume the game simply by using verify position mode (section 12) or by writing down the locations of the pieces when you interrupt the game.