

*Chess Wizard*

*IQ IV*

**INSTRUCTION**

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## **GENERAL NOTES**

If you are a beginner, your chess computer is your teacher, or you interesting chess partner if you are already a chess player. beginners we recommend. familiarize yourself with the basic rules first, detailed ones literature is commercially available.

Before starting the game, you should read these GENERAL INFORMATION. The user manual is structured so that each section individually as needed can be read. We recommend that you read this manual carefully so that see all the possibilities with which the chess computer is equipped, can scoop.

### **BATTERIES:**

Your chess computer is powered by 6 pieces 1.5V UM-3 alkaline batteries (or AA) (not included), take the flap on the underside and put it in place insert batteries according to the polarization. A set of new batteries ensures a playing time of approx 100 hours. If the battery level drops, you will play the computers unreliable.

### **ADAPTER**

The 220-240V AC adapter specially developed for the chess computer separately from your dealer. Only the adapter developed for this device may be used Important: First connect the adapter to the computer before you connect it to the mains.

### **POSITION MEMORY (Memory):**

Your chess computer is equipped with a memory that saves the game position and the set functions. When the chess computer is turned off, the last game setting and the set game stage are saved. However, this is only guaranteed when batteries are inserted.

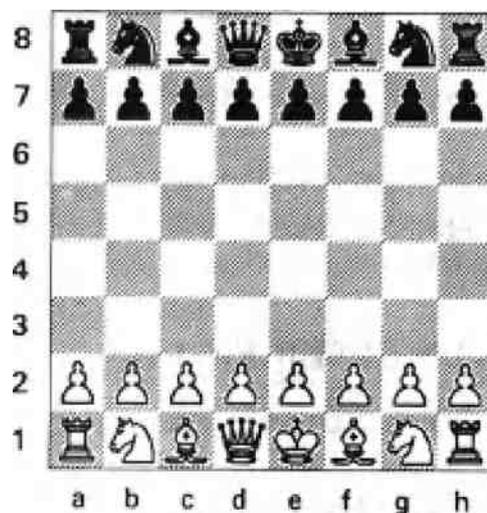
**Please note :** If the chess computer is not finished entering the VERIFY or SET UP mode turned off, this function remains after turning on the computer, you will recognize this by the fact that the VERIFY or SET UP LED In any case, first press GO fast to save the game structure. After that you can continue the game or by pressing the NEW GAME button start new game.

The function lamps are referred to below as LEDs (light-emitting diodes).

## I. START GAME

List the figures in the ground position. The on/off switch is located at the back of the device slide the switch to the right, the device is switched on. To start the game, press the NEW GAME button, and then select the desired level of play (level of play see Chapter 6).

Round position : The white pieces are in front on rows 1 and 2 and the black pieces at the back of rows 7 and 8



They play white (color change see Chapter 8), the WHITE LED turns on Your opening move by gently pressing on the piece you are moving want. The two light rows /line LEDs show the intersection of the field. Pick up the figure and place it on it with slight pressure desired field.

As long as the computer calculates its counter move, the BLACK LED lights up. (Never try to make a move or enter special functions while the computer is calculating). Functional tests cannot be performed operate until the computer has finished its calculation process) Does the computer the two rows / lines of LEDs point to the field the figure to be drawn. Take the character off the field with slight pressure. Then the rows / line LEDs of the "from" field go out, and those of the "after" field light up. Place the figure on this field with slight pressure and the computer move is executed. Now the WHITE LED lights up, i.e. It's your turn again.

Each time you press a character hear a tone indicating that the computer has registered this input.

## **2. ILLEGAL OR IMPROPER MOVES**

The chess computer plays according to the international chess rules and no accepts illegal moves. If you try to enter a wrong move , the ERROR LED will light up, return the piece to the starting square without pressure and make another, legal move.

Make a mistake executing a computer move stay the two rows displayed by the computer ! Line LEDs of the output field are on put the incorrectly moved piece back on the starting square without pressure and move with the figure displayed by the computer.

Did you accidentally make the right move while executing a computer move ? Piece placed on a wrong square , put it on the right square with pressure , indicated by the two light LEDs.

## **3. CAPTURE OF A FIGURE**

Captured pieces are removed from the game without pressure.

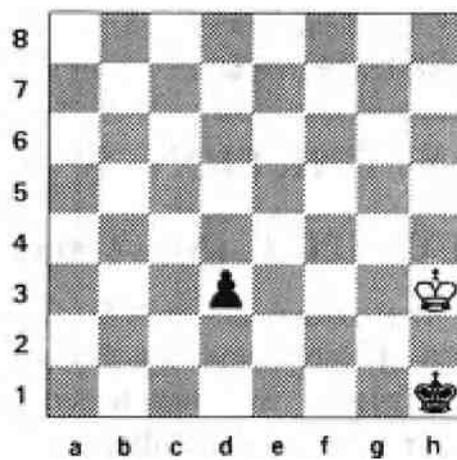
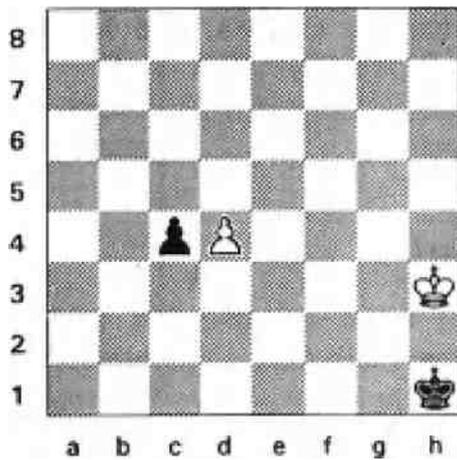
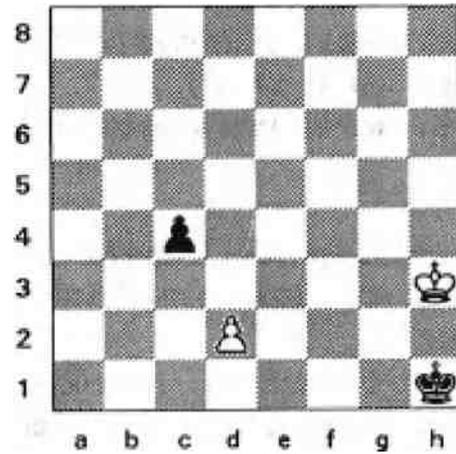
## **4. GAME FEATURES**

### **a) Castling**

According to the rules of chess , the chess computer knows long and short castling. If the computer casts, both moves are displayed. Execute castling in such a way that the king is first pressured two squares to the right or left , then pressure the rook accordingly. Note that you are not allowed to castle when the king is in check. The computer also accepts and executes castling in an entered game position.

### **h) En Passant**

The computer can automatically beat en passant. Similarly , you can hit en passant if the rules permit. Don't forget to remove the captured pawn. The computer also accepts and executes en passant moves in a given playing position.



En passant means "hit in passing" and designates a special move. Normally, a pawn may move one or two squares on its first move.

However, the rule for En Passant says: Would a pawn advance only one square on its first move could he be captured? If he advances two squares to avoid the danger, he will still be captured by the opposing pawn. However, the opposing pawn must capture immediately on the next move.

The En Passant move is performed like a normal move on the board. However, don't forget to remove the captured pawn from the playing field.

### **c) Peasant transformation - / sub-transformation**

If one of the pawns reaches the opponent 's base line, the computer automatically converts it into a queen. If, after converting one of your pawns, you prefer a different piece, use TAKE BACK (see Chapter 7) to take back the last computer move, use the SET UP mode the queen and replace her with the desired piece (see Chapter 12 ). The computer accepts and drives through pawn promotions even in entered piece positions.

### **d) Patt**

A stalemate is indicated by the STALE and MATE LEDs lighting up.

### **e) Chess and checkmate**

The computer's chess bid is indicated by the CHECK LED lighting up. The player's check bid is not particularly shown.

When a side is checkmated, the CHECK and MATE LEDs light up together. The game is over.

## **SPECIAL FUNCTIONS**

### **5. NEW GAME** (New Game button)

All are saved by pressing the NEW GAME button information is deleted and the characters within the computer memory are set to the home position. Accordingly, their characters on the playing field must also be returned to the home position. The NEW GAME button can be pressed at any time in any case, but before you start a new game.

After pressing NEW GAME, the previously set special level is retained.

### **6. LEVEL SELECTION** (Level button)

Own your chess computer 64 levels of game play to suit each player 's skill level. The game level is selected by pressing the LEVEL button and the currently set game level is displayed via the rows / line LEDs that light up. If you would like to select a different level of play, press on the corresponding field which shows the desired level of play Are defined.

The newly set level of play is again displayed via the corresponding row/line LEDs. Now you can start the game by pressing the GO button and entering your opening move for WHITE.

Example:

If you want to set level 12 (- Fixed Time Level B4), press the LEVEL button and field B4

The corresponding rows / line LEDs light up.

The table below shows you which fields you use to enter the individual game levels.

### The levels of play on the chess board

A8	B8	C8	D8	E8	F8	G8	H8
A7	B7	C7	D7	E7	F7	G7	H7
A6	B6	C6	D6	E6	F6	G6	H6
A5	B5	C5	D5	E5	F5	G5	H5
A4	B4	C4	D4	E4	F4	G4	H4
A3	B3	C3	D3	E3	F3	G3	H3
A2	B2	C2	D2	E2	F2	G2	H2
A1	B1	C1	D1	E1	F1	G1	H1
A	B	C	D	E	F	G	H

The level can be changed at any time before or during a game, provided the computer is not performing any calculations and it is your turn.

If you start a new game by pressing the NEW GAME button, the last game level is still saved as long as batteries are inserted or the computer is powered via the adapter.

If you have selected the LEVEL mode for serious one of the game levels, the BLACK/WHITE, VERIFY and SET UP LEDs will light up.

### The 64 game levels and their characteristics

\* Game runs with a fixed delay time A1 - A8 :  
(=Field Time Levels)

These game levels have a fixed computing time per move. The computer will always respond with the correct answer in the exact line given. If there is no other option in a game situation than making a specific move, then this move is immediately indicated by the computer.

Level	Time	Level	Time
(1) A1	2 sec	(9) B1	60 sec
(2) A2	5 sec	(10) B2	75 sec
(3) A3	10 sec	(11) B3	90 sec
(4) A4	15 sec	(12) B4	120 sec
(5) A5	20 sec	(13) B5	150 sec
(6) A6	25 sec	(14) B6	180 sec
(7) A7	30 sec	(15) B7	210 sec
(8) A8	45 sec	(16) B8	240 sec

\* Play level with average computing time C1 - D8 :  
(= Average Time levels)

The computer takes the average value of the specified line per move to calculate its counter move. If there is only one draw, the computer responds immediately.

Remark:

These averages are used by the computer to calculate a larger number of moves. The computer plays faster in the opening and end games, and in complicated middle game positions it takes longer to play its counter move.

Level	Time	Level	Time
(17) C1	2 sec	(25) D1	60 sec
(18) C2	5 sec	(26) D2	75 sec
(19) C3	10 sec	(27) D3	90 sec
(20) C4	15 sec	(28) D4	120 sec
(21) C5	20 sec	(29) D5	150 sec
(22) C6	25 sec	(30) D6	180 sec
(23) C7	30 sec	(31) D7	210 sec
(24) C8	45 sec	(32) D8	240 sec

### Arithmetic depth levels E1 - F5

(= Fix Depth Levels)

These game levels are important for long-time analysis, if you want to determine how many half-moves a specific solution is found.

These game levels have a fixed arithmetic logic. There is no initiation of a cell and the computer calculates its solution up to the arithmetic depth specified.

Level calculation		Level calculation	
per half move		per half move	
(33) E1	1 half moves	(41) F1	9 half moves
(34) E2	2 half moves	(42) F2	10 half moves
(35) E3	3 half moves	(43) F3	11 half moves
(36) E4	4 half moves	(44) F4	12 half moves
(37) E5	5 half moves	(45) F5	unlimited
(38) E6	6 half moves		
(39) E7	7 half moves		
(40) E8	8 half moves		

### game level F5:

On this game, the computer continues to calculate indefinitely until, by pressing the GO button, you request the computer to issue a counter move.

These game levels are specially done for weaker players and beginners. The computer plays weaker on purpose and its depth of calculation is limited to the given half-moves.

Level	Calculation depth limited to		
(46) G1	1 half move	+1	1 half move to capture a character
(47) G2	1 half move	+1	2 half move to capture a character
(48) G3	1 half move	+1	3 half move to capture a character
(49) G4	1 half move	+1	4 half move to capture a character
(50) G5	1 half move	+1	5 half move to capture a character
(51) G6	1 half move	+1	6 half move to capture a character
(52) G7	1 half move	+1	7 half move to capture a character
(53) G8	1 half move	+1	8 half move to capture a character
(54) F6	2 half move	+1	2 half move to capture a character
(55) F7	2 half move	+1	3 half move to capture a character
(56) F8	2 half move	+1	4 half move to capture a character

**Solution to the chess problem H1 - H6:  
(= Solve Mate Levels)**

The chess computer can solve most chess problems, as well solve chess problems up to mate -in-6 moves. However, the solution of mate problems with a higher number of moves can take a long time. However, this is not caused by the chess computer but by the enormous number of calculations that have to be carried out with such checkmate tasks. Always remember that no chess computer is able to find all mate solutions within its solution possibilities.

Press the NEW GAME button and enter the SET UP starting position. Before you start the mate search, it is recommended to check the entered game position with the VERIFY function for correctness.

Choose the right suit color with the COLOR button. Now press the LEVEL button to set the desired mat search (fields H1-H6)

Press the GO button once to exit the input function and a second time to start the computer's calculation function.

Level	Chess problem
(57) H1	Mate in 1
(58) H2	Mate in 2
(59) H3	Mate in 3
(60) H4	Mate in 4
(61) H5	Mate in 5
(62) H6	Mate in 6

**Random special level H7 (level 63) :**

A random generator is switched on at this level of the game. The computer uses a computing time per move of between 1 - 64 seconds

**Referee level H8 (level 64) = referee function :**

At this level of play, the computer does not calculate moves. A complete game can be played, with the computer only checking the legality of all entries (=moves).

This game stage is chosen to create a special opening position enter and replay, or when two players against each other want to compete.

The following functions work when the referee level is switched on: TAKE BACK , COLOR, HINT, SET UP, VERIFY, SOUND ON/OFF.

**7. TRAIN WITHDRAWAL (Take Back button)**

Your chess computer offers the possibility of rewinding the last 25 half-moves by pressing a button.

Wait for the computer 's response move to complete. Then press TAKE BACK and the last computer move is displayed backwards via the row /line LEDs and. Put the piece back with slight pressure. Press TAKE BACK again so that you can also take back your last move. Now you can enter a new move into the computer.

Captured figures are put back on the corresponding square with pressure.

Your chess computer is if you are a beginner, your teacher or you interesting chess partner. If you are already a chess player - beginners we recommend that you first familiarize your self with the basic rules, detailed ones literature is commercially available.

If you have changed the figures positions with the SET UP function or with COLOR make a color change, then all moves are before the change deleted and you can TAKE BACK the moves me up to this one withdraw if there are no trains in the memory, the ERROR LED lights up.

## **8. CHOICE OF COLOR** (Go button)

As soon as you as described in Chapter 1 play white . However , the computer knows how to take over. Instead of entering your permission, press GO and the computer will open the game. They thus automatically take over the black pieces.

If you press the NEW GAME COLOR GO button before the start of the game , the position of the pieces in the position memory is changed and you can play with the black pieces in this case. You must now place the black pieces on rows 1 and 2 and the white pieces on the rows 7 and 8 digits.

Note that the coordinates printed on the game border are not valid in this case.

## **9. CHANGE PAGE** (Color button)

If you want to hand over your game to the computer during a game, or play the computer game because, press instead of entering your move GO. This calls up a computer move and the change of sides is complete.

You can change sides as often as you like during the game.

But if you press the COLOR button during the game, the right of suit changes from white to black or vice versa. This form of side switching erases all previous moves.

The COLOR button is mainly used in VERIFY/SET UP mode to set the color of the item to be checked or set to change the figures to be used (see Chapters 11 and 12).

## **12. ENTER PLAYING POSITIONS**

**(Ver/Set button=Verify/Set Up button)**

In the SET UP mode you can remove or insert figures or enter entire game positions. In the SET UP mode, the computer legality control is set. You are not bound to the rules of chess with your entries. Before starting a new game or during the game you can enter the SET UP mode before entering your next move.

### **12 A. THE REMOVAL OF FIGURES :**

If you want to remove one or more characters from the game, proceed as follows:

- Press the VERIFY / SET UP button twice, the SET UP LEDs light up.
- \* The WHITE or BLACK LED indicates which character alphabet can be recalled with the COLOR. The color can be changed with the key.
- \* Now press on the corresponding field to remove the desired figure(s). The row/line LED light up to confirm this entry.
- Change the attractive color if necessary as described above.
- \* Now finish this process by pressing GO. You can now enter a move or use the GO key to call up a computer move.

Use the VERIFY function to verify that the pieces have actually been removed from the board.

### **12 B. CHANGING CHARACTERS: (Clear button)**

- Once in SET UP mode, you can move any piece on the field simply by pressing the selected piece off one square and pressing it onto another square.
- Pressing the GO key or switching to the VERIFY function completes moving figures.
- \* Use the VERIFY function to verify that the piece is actually on the new square. Insertion of course, figures can be removed and repositioned one after the other without having to exit SET UP mode.

**- DELETING ALL CHARACTERS :** (Clear button)

If you want to delete all previous positions in order to enter a game position (e.g. to solve mate problem or to analyze a position), proceed as follows:

- Press the VERIFY/ SET UP button twice, the SET UP LED lights up.
- \* Now press the CLEAR button to delete all figures.
- The WHITE or BLACK LED indicates which piece color is being used can be. The color of the figures to be used can be changed using the COLOR button
- \* You can now enter a game position

**- SETTING UP PLAYING POSITIONS :**

If you would like to use one or more figures or change a game position, proceed as follows:

- \* Press the VERIFY/SET UP button twice, the SET UP LED lights up,
- \* If necessary, remove all pieces from the board if you want to enter a new game arrangement (see Chapter 12. C.)
- \* The WHITE or BLACK LED indicates which piece color is being used can be. The color of the figures to be combined can be changed using the COLOR button
- \* Select the type of figure to be used via the corresponding symbol loads.
- \* Place the figure(s) of this type in the desired empty fields with slight pressure. The rows / line LEDs of the respective field light up.
- \* Select the next character type using the icon button and select these character types etc. The color only needs to be changed when it changes to the previous character.
- \* Press GO to finish.
- \* Change if necessary the attractive color as described above and make a move or use GO to get a compute move.

Use the VERIFY function to check that the figures have been placed correctly.

### **13. SUGGESTIONS** (Hint button)

The HINT button on the chess computer can be used to make move suggestions from the computer. This is particularly useful in difficult situations or when learning to play chess.

When it is your turn to move, press the HINT key and the computer will display a suggestion via the flashing row/line LEDs.

As a rule, this is the move that the computer has predicted to be the strongest move.

If you press the HINT key while the computer is calculating a counter move, the row/line LEDs will indicate which counter move the computer has calculated up to this point.

#### **Remark:**

If you press the Hint button again, the computer suggests a different move if the playing position allows it.

### **14. TRAINING FUNCTION** (Training button)

This function is especially helpful for the beginner.

To activate this feature, press the TRAINING key when it is your turn. The flashing row/line LEDs indicate the field position "from" and "to" field of the first possible piece that can be moved on the next move.

You can repeat this process as you wish. Once all the options have been called up, the computer automatically ends the TRAINING mode.

If you want to make one of the displayed moves, press the GO key and the computer will start calculating your counter move. However you can also run any other train of your choice as usual.

Additional moves of other pieces can be called up a little faster by pressing the LEVEL key during the TRAINING function. Now the field position of the next possible piece is shown.

**Remark:**

When you have sniffed out all the draw options using the LEVEL button , the VERIFY /SET UP and BLACK /WHITE LEDs light up , as well as the row /line LEDs of the preset game level. The LEVEL function is now activated, press the GO button to exit this function.

You also have to press the GO button to exit the TRAINING function. You can now enter your next move or call up a computer move.

**15. TURN SOUND ON AND OFF (Sound button)**

The various acoustic signals can be switched on and off with the SOUND button.

**16. CHESS PROBLEMS - MATING QUESTIONS**

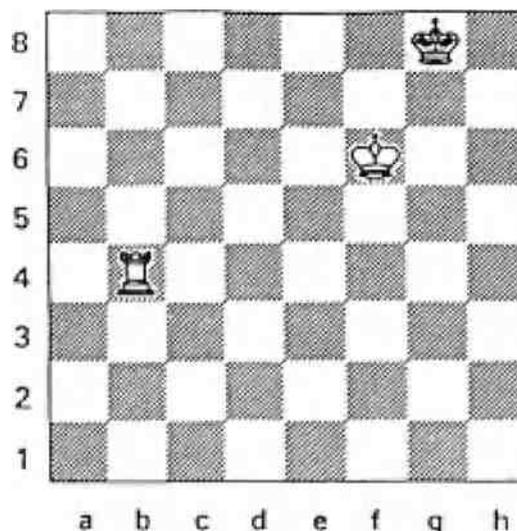
On the game moves H1-H6, the computer can solve almost all mate problems (mate -in-6 moves ) as well as chess problems that also include castling. Include pawn promotions and en passant moves.

Enter the game position as in Chapter 13. and set the level of the game. If you want to solve a chess problem, then let the computer play against itself (see Chapter 12).

Now press the GO button once to exit mate task mode and a second time to start the mate task.

**Example:**

If you want to solve a mate problem with mate-in-2, first place the 3 pieces on the chessboard as shown in the diagram below.



Apply now as follows n press :

- NEW GAME button
- LEVEL button → Field H2
- GO button
- VERIFY/SETUP button twice
- CLEAR button
- Symbol button King → Field position F6
- Symbol button Rook → Field position B4
- COLOR button
- Symbol button Knight → Field position G8
- COLOR button, it's white's turn
- GO button, confirmation of the entry
- GO button, beginning of the mat search

The computer will respond with the first half move: 1. B4-H4.

The black King can only move G8-F8, please execute this move. Your chess computer responds with 2. H4-H8 MATT!

## **WARRANTY**

The chess computer comes with a one-year warranty from the date of sale. Your warranty claim is linked to the conditions listed on the enclosed warranty card, repairs after the warranty has expired will be charged for. The shipping boxes are to be borne by the customer the address of the after-sales service is noted on the warranty card.

## **DEVICE CARE**

Dust and dirt can be removed with a soft, dry cloth. Under no circumstances should the device be allowed to be cleaned with cleaning agents brought into contact. The device must be kept dry and at room temperature. Avoid storing and playing in the blazing sun, under strong room radiation or near radiators, failures caused by improper use.

Handling of the device is not covered by the guarantee.

## **TECHNICAL SPECIFICATIONS**

* Program size	16 KByte ROM ROM = Read Only
* Program memory	768 Byte RAM RAM = Random Access
* Clock frequency	8 MHz
* Operating voltage	130mW max

- Operation
- Move input via
- Functional loads 16
- Additional ERROR LED
- Levels 64
- Solves mate-in-6 moves
- Opening library 8500 half move
- Take back 25 half move
- Position control
- Entering game positions
- Move suggestions and training function
- Handy case 282 x 298 x 25 mm

Subject to change.