

NOVAG® V.I.P.

INSTRUCTION

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LEGEND

The following abbreviations on the LCD display are used to characterize the chess pieces.

SYMBOLS:	EXPLANATION:
H	K King
q	Q Queen
b	B Bishop
n	N Knight
r	R Rook
p	P Pawn

I. GENERAL HINTS

Playing with the NOVAG VIP is simple in compared with other chess computers. However we recommend reading the general instructions before starting to play. The detailed instructions are laid out in such a way that each section is self-contained, so you do not have to read everything at once. If you encounter any problem with your computer, refer to Trouble Shooting List for advice.

Batteries:

The NOVAG VIP runs on four 1,5V UM 4-type alkaline or heavy-duty batteries (not included).

Note: Do not use regular batteries, as it will result in irregular performance.

To insert the batteries, open the "BATTERY DOOR" on the bottom of the unit and place the batteries as indicated by the +/- signs marked clearly on the battery compartment. A set of new alkaline batteries runs approximately 100 hours. (continuous operation)

Memory:

The NOVAG VIP has a long-term memory and will retain the last board position. However, make sure that there are batteries in the chess computer or you will lose the current position and settings.

II. SHORT INSTRUCTION

1. Before commencing to play set up the chess pieces on the chessboard attached to the VIP (or any chessboard of your choice) in the opening position. (White pieces on the 1st and 2nd rank and the Black pieces on the 7th and 8th ranks).
2. The power switch is a 2- position switch and located at the right side panel. It is marked with ON/OFF. Push this switch towards ON.
3. Press NEW GAME. You will hear 3 beeps and you can now make your opening move for White.
4. If you want to increase the level of skill, press the SET LEVEL Key. Each time you press this key the level increases by one. On the LCD display you will see a number indicating the desired level. (See section IV 2. for level settings and their time controls).
5. Once you have set the level, press GO to exit the SET LEVEL mode.

After the above procedure you may enter your move as White using the keypad; for example E2-E4 is entered by pressing:

E5 B2 E5 D4

You do not have to press ENTER as the VIP detects your completed move and will immediately start computing its reply. When the move has been chosen it remain on the LCD display. If you wish to cancel your move your may press the TRACE BACK Key.

Note: Since the VIP has no chess board on which to indicate its moves you will have to make all the moves on your own to reflect the actual game going on inside the VIP's memory.

III. GAME FEATURES

a) Making a Move

Moves are entered using the algebraic notation, which is the standard adopted by the World Chess Federation. Each move is completed by making all the key press in sequence. For example to enter E2-E4 presses the following keys: E5 B2 E5 D4. On the last keypress the computer will start computing its reply. During the computing do not enter anything with one exception: You can interrupt computing by pressing the GO Key. The computer will make the best possible move up to that moment.

Note: Since moves are entered using the long algebraic notation there is no need to indicate captures, castlings or en passant captures. However in the event of a promotion the VIP will prompt you for the piece that you wish to promote to. Please press one of the piece keys indicating your choice. (For explanation of LCD rotational messages please see section IV 15. SOLVE MATE for full details.)

b) Capturing a Piece

If the VIP makes a capturing move it will show on the LCD the symbol "x", and in cases of en passant pawn captures the display will show "EP".

c) Impossible and Illegal Moves

The NOVAG VIP is programmed in accordance with the International Chess rules and does not accept nor make illegal moves. Illegal moves are not allowed and the VIP will beep 3 times and show "er r " on the display.

d) Castling

This move must be entered as a move by the King, input the square from which the King is located then the square that it will have to go to complete the castling move. Do NOT put in the Rook move. The NOVAG VIP accepts and executes castlings in set up board positions.

e) En Passant

If you make this special pawn capture you only have to enter the FROM and TO square of this move as in a normal move. The VIP automatically removes the captured pawn and no further action is required from you. When the VIP makes an en passant capture it will show the words "EP" along with an "x" on the LCD display. You or respectively the computer can capture en passant in set up board positions.

f) Pawn Promotion / Underpromotion

If one of your pawns reaches the 8th rank the VIP will prompt you for the piece that you wish to promote to. Please press the piece key of your choice. When the VIP promotes one of its pawns it will show on the LCD display the piece selected. If you missed this display you can use the VERIFY Key to find out which piece has been selected by the VIP. The computer also accepts and executes pawn promotions in set up board positions.

g) Stalemate Draw

The VIP will announce a stalemate by the word "d St" on display and at the upper right hand corner the sign "=" will appear. The VIP also will recognize special draw conditions as stated by the World Chess Federation. Some of the draw conditions are:

- Draw due to insufficient material.
- 50 moves without a capture or a pawn move.
- 3 times repetition of the position.

h) Check and Checkmate

Check announcements will be shown as a "+" sign on the right corner of the LCD display. If this check is the last check of the game i.e. checkmate, this symbol "‡" will appear on the bottom right corner of the display along with the last move of the game and the winning color.

IV. SPECIAL FUNCTOINS

1) NEW GAME Key (Key marked NG)

Pressing NEW GAME will reset the VIP's internal chessboard to the starting position. This key is effective even while in the special modes like SET UP, VERIFY and LEVEL.

Press NEW GAME every time you switch the computer on, or whenever you wish to commence a new game.

2) SET LEVEL Key (Key marked LEVEL)

Your NOVAG VIP has 48 different level of skill to suit every type of playing conditions that you wish to set. These are divided into 6 sections and they are listed below.

1. **Section TR:** For tournament time controls (Level 8 is the strongest)

<u>Level</u>	<u>Moves</u>	<u>Time</u>
1 =	60	5 mins
2 =	60	30 mins
3 =	60	60 mins
4 =	45	90 mins
5 =	40	90 mins
6 =	40	100 mins
7 =	40	120 mins
8 =	40	150 mins

2. **Section FT:** For fixed computing time. The VIP will only use the time selected.

<u>Level</u>	<u>Time</u>
1 = every	2 secs.
2 = every	5 secs.
3 = every	10 secs.
4 = every	15 secs.
5 = every	30 secs.
6 = every	1 min.
7 = every	2 mins.
8 = every	3 mins.

3. **Section SD:** Sudden death levels for play to the finish. The computer has to finish his game within a given time. If you or the computer exceed the specified time control, the game will be declared lost.

<u>Level</u>	<u>Time</u>
1 = all	3 mins.
2 = all	5 mins
3 = all	10 mins.
4 = all	15 mins.
5 = all	30 mins.

6 = all	60 mins.
7 = all	90 mins.
8 = all	120 mins.

4. **Section FD:** Fixed depth levels. The VIP will only compute up to the depth selected.

<u>Level</u>	<u>Half Moves</u>
1 = h/move	1
2 = h/move	2
3 = h/move	3
4 = h/move	4
5 = h/move	5
6 = h/move	6
7 = h/move	7
8 = h/move	8

5. **Section AN:** The analysis mode for more difficult problems provides deeper searches.

<u>Level</u>	<u>Half Moves</u>
1 = h/move	9
2 = h/move	10
3 = h/move	11
4 = h/move	12
5 = h/move	13
6 = h/move	14
7 = h/move	15
8 = h/move	16

6. **Section EA:** In the easy mode the VIP will not compute on opponent's time, therefore its play is weaker.

<u>Level</u>	<u>Moves</u>	<u>Time</u>
1 =	60	5 mins
2 =	60	30 mins
3 =	60	60 mins
4 =	45	90 mins
5 =	40	90 mins
6 =	40	100 mins.
7 =	40	120 mins
8 =	40	150 mins

To select one of the levels above, press the SET LEVEL Key as many times as is needed to switch the letters (tr/Ft/Sd/Fd/An/EA) on the left side of the LCD display to the type of level required. Then press the number key which you wish to set.

Once you have set the desired level press "GO" to enter it into the computer.

You can always check or change the skill level during a game, however not whilst the computer is calculating.

Note: If you start a new game without switching the computer off, the previously set skill level will be retained.

3) **RANDOM Key**

The NOVAG VIP always plays the strongest move available from its computation therefore will not provide much of a variety of play that you desire. Pressing the RANDOM Key once will turn on the random mode where the VIP will select from a list of possible moves which are similar in their evaluations. Pressing RANDOM while it is activated will turn it off. The LCD display will show "Ran = " if random is turned on and just "Ran" if it is off.

4) **REFEREE Key**

If you wish to enter an opening position you may turn this mode on by pressing the REFEREE Key and the VIP will not compute unless requested by the GO Key.

Hence, you can enter all the opening moves for both sides without interference from the VIP. If referee mode is ON the LCD display will show "REF = " and just "REF" when it is off. The following features are available whilst in the referee mode: TRACE BACK / CHANGE COLOR / HINT / SET UP / VERIFY and SOUND.

5) **HINT Key**

If you need a hint as to which move to play next, press this key and the NOVAG VIP will show the move that it considers the best for the color to move. You can accept any suggested move or may make a move of your choice even while a hint is being displayed.

6) **TRACE BACK Key (key marked <)**

The NOVAG VIP allows you to take back up to 100 half moves to enable you to rectify an earlier mistake or to play a different strategy. Please note that if you select the SET UP to alter the position of any of the pieces all the moves will be deleted and no more TRACE BACKS will be allowed.

Every press of the TRACE BACK Key will take back 1 half move and that move will be shown in reverse order on the LCD display and the words VERIFY and SET UP will be displayed on the bottom of the LCD display.

When you have taken back right to the start of the game the LCD display will show "BEG". If the move taken back is a captured one, the piece type and the square that it is being put back on will be displayed.

Note: To continue a game after a TRACE BACK has been executed just enter your new move or if you wish the VIP to play from this position just press GO.

7) TRACE FORWARD Key (key marked >)

This key is mainly used for tracing forward all moves of a game after RESTORE (see section 13) has been activated to reset the board position back to the start of the current game in memory. Every press of this key will replay a move of the current game until all the moves in memory have been replaced and are indicated by the word "End" on the LCD display.

8) COLOR Key (key marked COLOR)

The computer is generally set to play Black and you White. This key may be pressed any time and the color to move will be reversed. Any move made prior to pressing of this key will be erased and the game history will begin with this position.

To change color during a game use the GO Key.

If you are in the SET UP mode, you can choose the color to move first via the COLOR KEY. (See section 11).

9) GO Key

The GO Key is used to enter a command or to exit from a Special Function and has the following uses:

- a) to make the VIP compute for the side to move
- b) to terminate the move search (only while the VIP is computing) and force it to make the move it currently considers the best. Please allow the VIP at least 5 seconds of search time before pressing this key so that the VIP has time to compute a reasonable move.
- c) to exit from the SET UP mode
- d) to exit from the VERIFY mode
- e) to exit from the SET LEVEL mode

10) VERIFY Key:

To enter this mode press the VERIFY SET UP Key once and on display you will see "VE r". In this mode there are two ways to verify the position of the pieces.

- a) Enter the square you wish to verify and the VIP will show the name of the piece that is standing there and its color. If the square is empty the left side of the LCD will be blank.
- b) Press any piece key and its present position will be displayed. If the required piece is not on the board you will see the message "no nE". If there are more pieces of the type that you chose you will see their respective locations with subsequent presses until there are no more and the message "no nE" will appear.

11) SET UP KEY:

To enter this mode press the VERIFY/SET UP Key twice or if you are already in the VERIFY mode then once. You will see the word "SE t" on the LCD display.

Warning: If you make any key entries while in this mode you will erase all the moves held in the memory and even there is no change in the position if you will not be allowed to trace back or forward upon exit from this mode.

Setting up a special board position you may follow the procedures below:

- a) To clear the board of all the pieces press the CLEAR BOARD Key (marked C/CB).
- b) To remove a piece, just enter the square on which it presently stands.
- c) To enter a piece, first make sure that the color symbol at the bottom of the LCD display is correct. If not press the COLOR Key to change this. Next, press the key with the symbol of the piece you wish to enter, then the square where you wish to place this piece.
- d) To move a piece from one square to another, simply enter the present location of the piece that you wish to move then immediately afterwards the square you wish to move it to.

12) CLEAR/CLEAR BOARD Key: (key marked C/CB)

This key has several uses:

- a) In SET UP mode this key clears the board of all the pieces.
- b) If there are messages on the LCD display like "RA n =", "ES Y =" etc. you can clear them by pressing this key.
- c) If you start entering a move and wish to cancel you may press this key to clear the LCD display and start over again.

13) RESTORE Key

This function of the NOVAG VIP allows you to restore the board position back to the start of the game, which in cases of set up positions need not be the opening position of a new game. After pressing this key (the display will show "bE G") you may use the complementary function key TRACE FORWARD to replay through the entire game. However if you enter a move of your own you will erase all of the game history and the VIP will treat this as a new game.

14) SOUND Key

The NOVAG VIP provides acoustic signals (beeps) to let you know that it is ready. For example after it has made a move or when you press special function key and so on. You may turn this sound off by pressing the SOUND Key. This key acts as a toggle with alternate presses setting it On and OFF. Note however that you may not turn off the beeps that the VIP makes when it has made a move.

Note: Pressing NEW GAME will always turn the sound back ON.

15) SOLVE MATE Key

The NOVAG VIP can solve chess problems as well as mate problems up to mate-in-8 even those that require castlings, en passant captures or pawn promotions / underpromotions.

You will have to set up the problem position using the SET UP mode (see section 11). To start the mate search make sure that the color to move is correct. If not, change this by pressing the COLOR Key. Then press the SOLVE MATE Key and when prompted for the number of moves to mate, please select by pressing any of the number keys 1 to 8. Press GO to start the mate search.

If there is no solution you will see "no nE" on the LCD display. While the VIP is searching it will show the main variation that it is presently considering and will rotate a variety of information on the LCD display in the following order:

- a) Time used up so far.
- b) First move of main line.
- c) Second move of the main line.
- d) Third move of main line.
- e) Evaluation of the position (9 99 means 9.99 pawn up).
- f) Depth of search (d 6 means now searching 6 half moves).
- g) Iterations not completed (29 30 means finished 29 out of 30).

16) EASY Key

The NOVAG VIP always uses the opponent's time to compute its best response which is quite an advantage as it will sometimes replay instantly even if the move appears difficult since it has predicted your move and completed its assessment of your move. To disable this advantage please use the EASY Key. When this mode is activated you will see the message "ES Y=" on the LCD display and if turned off you will see "ES y". This key acts as a toggle with alternate key presses turning it ON and OFF.

17) INFO Key

This key provides information on the current game as it progresses and has a rotational display to show many messages.

a) The first keypress

Shows the evaluation of the current position adjusted to the number of pawns advantage or minus so many pawns disadvantage. The LCD display shows "SC r", then some figures for example "0 41", which means almost half a pawn advantage to the side to move.

b) The second key press

Shows total time used by White; the display shows "to t", then time in minutes and seconds "00:00".

c) The third keypress

Shows the total time for BLACK. (format as above)

d) The fourth keypress:

Shows the number of moves so far.

To clear the LCD display press the CLEAR / C'LEAR BOARD Key and you may continue your game or just enter your next move.

18) AUTOPLAY Key

The NOVAG VIP may be set to play against itself and you may want to do this to watch an interesting game or perhaps to learn something about chess or simply to analyze a problem position overnight.

To set the VIP to autoplay mode please press the LEVEL Key first then the key marked AUTOPLAY. This will immediately start the VIP computing for the side to move and then the next move until the end of the game or if some conditions exist that will terminate a game. (For example a draw announcement)

Note: You may at any time interrupt AUTOPLAY by pressing GO or if you wish to clear everything you can press the NEW GAME Key.

19) NEXT BEST Key

It may interest you to know which move in a given position is the next best choice with its evaluation equal to or just less than the move just played by the VIP. You may press the SET LEVEL - NEXT BEST Key after the VIP has made a move. The LCD display will show "AL t" then the previous move taken back (this move will be in reverse order). You can now press GO and the VIP will compute the next best move in the current position.

V. APPENDIX

A. Care of the NOVAG chess computer

Dirt or dust can be removed with a soft cloth. Do not use any chemical solvents or water on the set. Any damage caused by their use invalidates the warranty.

Always keep the computer in a dry and cool place (normal room temperature). Avoid exposing the computer to heat, e.g. spot light, radiator, sunshine etc. as this may lead to permanent damage caused by overheating, which is not covered by the warranty.

Note: Please refer to warranty card enclosed with the computer for further details.

B. Trouble Shooting List

The NOVAG chess computers are all extensively tested before leaving the factory to ensure trouble free operation. However if you encounter problems when using the VIP please refer to the list below before sending the set back to your dealer.

1. The computer does not work and the LCD display is blank. Please check if your batteries have sufficient charge. Always use heavy duty, or alkaline batteries for reliable performance.
2. The letters on the LCD display are faint and get dimmer as you use the VIP. The batteries are run down. Please change them.
3. The keys do not work and pressing them will bring no response from the VIP. Please check that the keyboard lock switch has not been accidentally left in the LOCK position. This switch is on the left side panel of the VIP. When using the computer please ensure that this switch is always set to NORMAL.
4. The VIP keeps returning error message ("er r") on entering moves. Please check that your position is correct using the VERIFY function (see section 10). Or if the VIP is requesting you to enter a pawn promotion please press one of the piece keys.

5. The VIP locks up and will not respond to any keypress. Please reset the VIP by following these instructions.
 - a. Turn the computer on its back and locate a hole marked RESET.
 - b. Use a long and pointed instrument (ball pen) to push into this hole and hold for at least 10 seconds.

You may now continue using the VIP normally.

C. Technical Data:

- Program Size 16K Byte Rom, 2K Byte Ram
- CPU clock speed 8 Mhz
- Opening Book 2000 moves
- 24 Keys
- Power Consumption 15 mA minimum
20 mA maximum at 6V
- Power Supply 4 x 1.5V UM-4 (AAA type) batteries

D. Special Features:

- Key board lock to prevent accidental interruptions to computing
- 48 levels of skill divided into 6 sections (tournament/fixed time/sudden death/fixed depth/analysis, easy/handicap)
- Memory save
- Handicap mode for beginners
- Trace back/forward with board restore
- Next best move search
- Set up special positions
- Player/player mode
- Solves mate-in-8
- Autoplay

All data subject to change without notice.

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