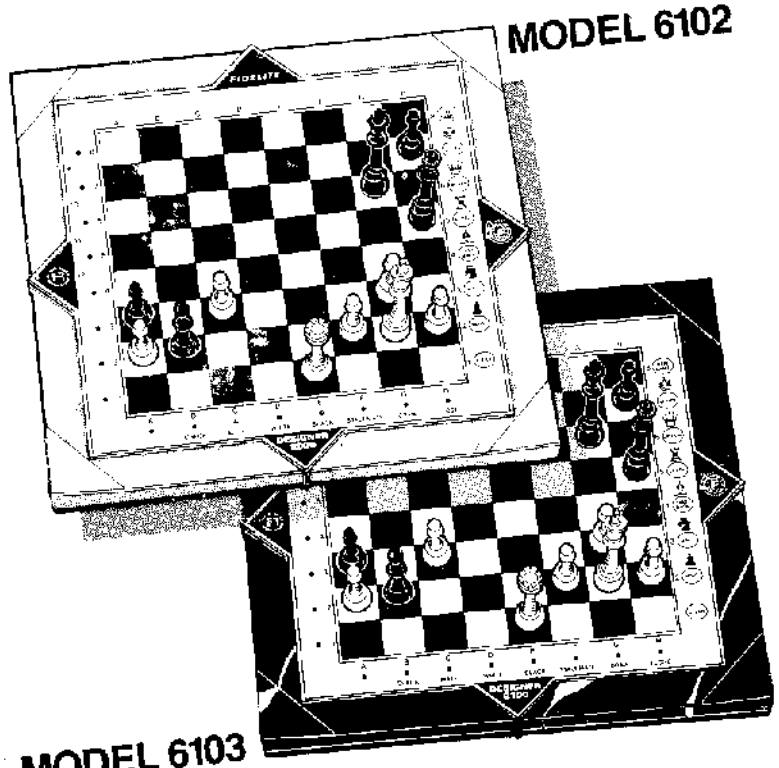
DESIGNER CHESS CHALLENGER®

OWNER'S MANUAL
INSTRUCTION BOOKLETS



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THIS LIMITED WARRANTY APPLIES ONLY TO FIDELITY PRODUCTS PURCHASED IN THE UNITED STATES

LIMITED 90-DAY WARRANTY

Fidelity International warrants to the orginal consumer purchaser that its products are free from any electrical or mechanical defects for a period of ninety days from the date of purchase. If any such defect is discovered within the warranty period, Fidelity International, will repair or replace the unit free of charge upon receipt of the unit which has been sent insured and postage prepaid to the factory address shown below.

A PURCHASE RECEIPT OR OTHER PROOF OF DATE OF ORIGINAL CONSUMER PURCHASE WILL BE REQUIRED BEFORE WARRANTY PERFORMANCE IS RENDERED.

This warranty covers normal consumer use and does not cover damage which occurs in shipment or failure which results from alteration, accident, misuse, abuse, neglect, wear and tear, inadequate maintenance, commercial use, or unreasonable use of the unit. Removal of the top panel voids all warranties. This warranty does not cover cost of repairs made or attempted outside of the factory.

Any applicable implied warranties, including warranties of merchantability and fitness, are hereby limited to ninety days from date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. Some states do not allow limitations on the duration of implied warranties and do not allow exclusion of incidental or consequential damages, so the above limitations and exclusions in these instances may not apply.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

The only authorized service center in the United States:

Fidelity International
13900 N.W. 58th Court
Miami, Florida 33014
(305) 557-9800

If you ship the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter, detailing the complaint inside the shipping carton with a telephone number where you may be reached during business hours.

If your warranty has expired and you want a service fee quote, write to the above address specifying the model, and requesting a service quotation. DO NOT SEND YOUR GAME with your request for quotation, as Fidelity has no provisions of holding your game from service while waiting for your reply.

INSTRUCTION MANUAL FOR Fidelity Model 6102 - Designer 2000 Fidelity Model 6103 - Designer 2100

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INTRODUCTION

It has been our intention with this product to provide you with a value beyond comparison - a truly excellent chess program with sleek styling. We feel confident that this microprocessor-based chess opponent will challenge and delight you now and for years to come.

Fidelity's state-of-the art technology provides you with an amazing computerized opponent that plays chess with skill and cunning, yet allows you to control the level of difficulty. The sensory playing surface enables the computer to automatically sense all game move. Battery operation allows you to play against this chess opponent wherever you desire.

Your enjoyment of the computer will be greatly enhanced if you familiarize youself with SECTION ONE of this Owner's Manual first before attempting to engage the special features or setting up board positions. The instructions which follow help you understand how to operate the computer and how to play your first game.

SECTION I—BASIC OPERATION

1.1 BATTERY INSTALLATION/REPLACEMENT

Use four "AA" size alkaline batteries only.

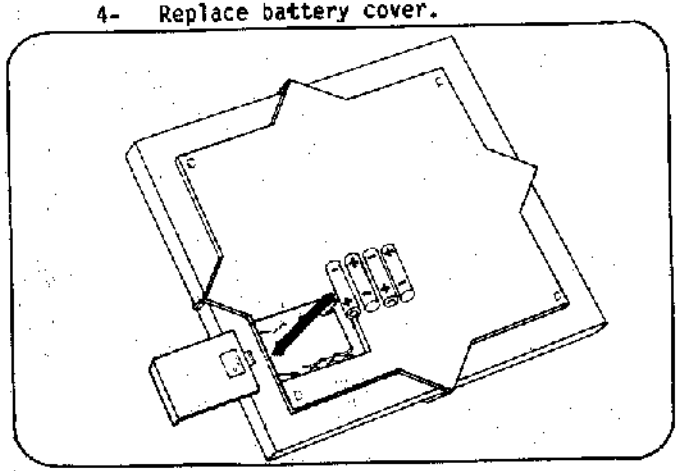
To install or replace batteries:

1- Locate the battery compartment on the underside of the unit, and gently slide the battery cover to expose the inner compartment.

2- Remove and discard old batteries.

3- Install batteries.

4- Replace battery cover.



1.2 LOW BATTERIES

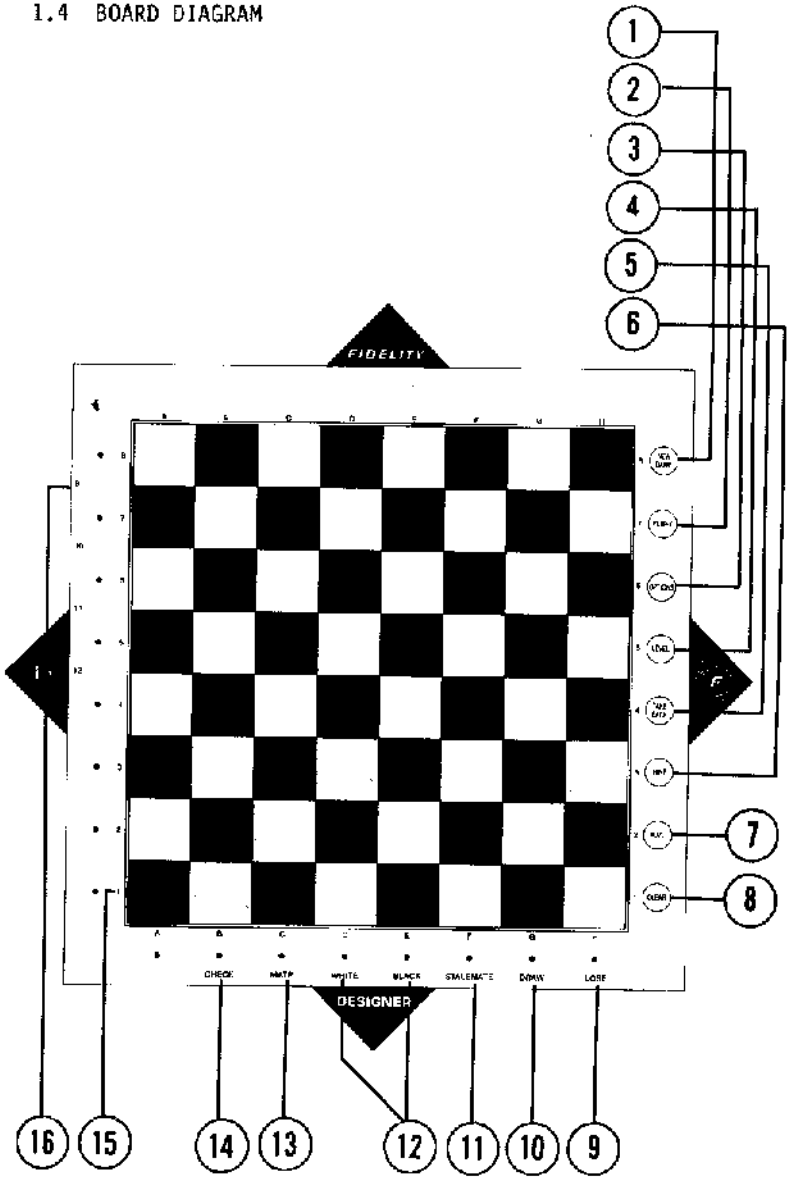
If the computer appears to be behaving erratically or signalling impossible/illegal responses, this is a sign of low battery power and the batteries should be replaced.

1.3 AC OPERATION (OPTIONAL)

For AC operation, plug the transformer into an AC wall outlet and plug the transformer line cord into the game.

NOTE: The Fidelity transformer available for this unit has been specifically designed for use with this product. We strongly recommend against the use of any other transformer (transformer is optional and not included). If the transformer should become warm during use, this is normal and may be disregarded.

1.4 BOARD DIAGRAM



FUNCTION KEYS:

1- NEW GAME KEY: USED TO START A NEW GAME, KEEPING ALL PREVIOUSLY SELECTED LEVELS AND OPTIONS. USED WITH THE OPTIONS KEY TO ACTIVATE FULL RESET FEATURE.

2- VERIFY KEY: TO ENTER VERIFY MODE TO CHECK PIECE POSITIONS; ALSO USED WITH OPTIONS KEY TO ENTER PROBLEM MODE AND SET UP POSITIONS.

3- OPTIONS KEY: USED TO ENTER OPTION MODE; ALSO FOR PROBLEM MODE.

4- LEVEL KEY: TO SELECT AND CHANGE LEVELS OF PLAY; ALSO TO DISPLAY SEARCH DEPTH.

5- TAKE BACK KEY: USED TO TAKE BACK MOVES; ALSO USED TO ACTIVATE 64 SELECTABLE OPENINGS FEATURE.

6- HINT KEY: USED TO OBTAIN SUGGESTED MOVE; ALSO TO SEE MOVE COMPUTER IS CONSIDERING.

7- MOVE KEY: TO CHANGE SIDES WITH THE COMPUTER; ALSO TO HALT THE COMPUTER'S THINKING.

8- CLEAR KEY: USED TO EXIT FROM OPTIONS MODE AND PROBLEM MODE; CAN BE USED TO CANCEL ILLEGAL MOVE INDICATION; CAN ALSO BE USED TO TURN LED INDICATORS OFF AFTER VERIFYING POSITIONS OR SELECTING A PLAYING LEVEL.

THE LIGHTS, OR LED'S (LIGHT EMITTING DIODES).

9- I LOSE LED: INDICATES COMPUTER'S LOSS WHEN LIT.

10- DRAW LED: INDICATES DRAW WHEN LIT.

11- STALEMATE LED: WILL LIGHT IN CONJUNCTION WITH DRAW LED WHEN DRAW BY STALEMATE OCCURS.

12- COLOR LED'S: (WHITE AND BLACK) ALWAYS INDICATE WHICH SIDE IS CURRENTLY AT PLAY. IF YOU ARE WHITE AND YOU ARE CONSIDERING A MOVE TO MAKE, THE WHITE LED WILL BE FLASHING. SIMILARLY, IF THE COMPUTER IS BLACK AND IT IS THINKING, THE BLACK LED WILL FLASH. THIS ENABLES YOU TO TELL AT A GLANCE WHOSE MOVE IT IS.

13- MATE LED: WILL LIGHT WHEN COMPUTER HAS MATED OPPONENT; ALSO USED WITH NUMBERED LED'S OR MATE FINDER MODE AND MATE ANNOUNCEMENT AGAINST OPPONENT.

14- CHECK LED: WILL FLASH WHENEVER THERE IS A CHECK SITUATION ON THE BOARD.

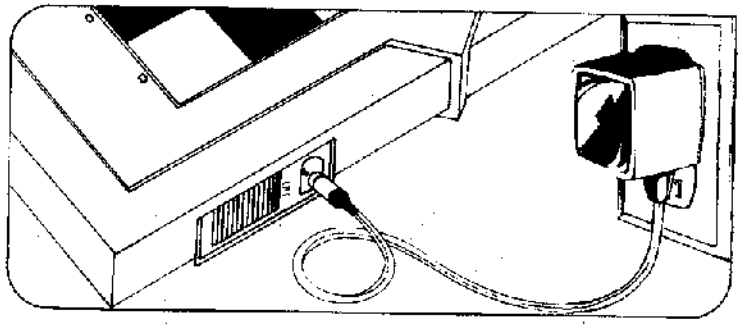
15- NUMBERED LED'S (1-8): USED IN CONJUNCTION WITH BOTTOM ROW OF LED'S TO INDICATE LOCATION OF PIECE COMPUTER WANTS TO MOVE AND DESTINATION OF THAT PIECE; ALSO USED TO DISPLAY PLAY LEVEL. YOU WILL FIND THAT COMBINATIONS OF THESE SAME LED'S WILL ALSO LIGHT FOR MANY OF THE SPECIAL FUNCTIONS THE COMPUTER PERFORMS AS YOU READ FURTHER IN MANUAL.

16- NUMBERED LED'S (9-12): USED TO INDICATE LEVELS 9-12 BY LIGHTING THE PAIR OF LED'S CONNECTED BY BRACKETS.

1.5 POWER ON

Set the ON/OFF switch ON. If optional Fidelity transformer is being used, see 1.3.

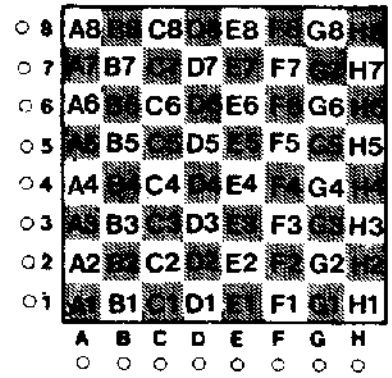
A new game is started when you first turn power on or when the NEW GAME Key is pressed.



When the game is first plugged in, the unit will beep a five-note scale, and the LED labeled WHITE will be flashing. As described in the board diagram, Sect. 1.4, this LED indicates that it is White's turn to move (in this case, to make the first move to start the game). At this point, none of the options or special features are in effect. A new game is always started when power is turned on, and turning the power off and on again resets the program to pre-game conditions and removes all previously selected options. As you become more familiar with the operation of the computer you will find that using FULL RESET (see Section 2.1) is exactly the same as unplugging the unit and plugging it back in again, whereas using the NEW GAME KEY (see Section 2.1) will start a new game but will retain all previously selected options.

1.6 THE GAME BOARD

Set up the chess pieces with the White pieces at the bottom of the board. Each square on the chess board is designated, in accordance with international chess notation, by a letter of the alphabet designating the vertical rows (the files), and a number designating the horizontal rows (the ranks). When the game is about to begin, the white King is on square E1, and the black King is on square E8.



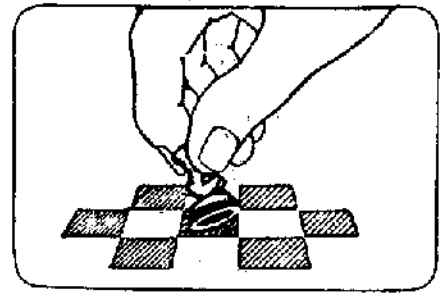
Files are vertical rows of squares. 1 - 8

Ranks are horizontal rows of squares. A - H

1.7 THE PLAY

Playing chess against your computer is like playing with a human opponent--you make your move and the computer responds with its move. The obvious difference, of course, is that you must make the actual physical move of the piece for the computer.

To make a move, tilt the piece and press gently on the center of the square using the edge of the piece. Press first on the FROM square, then on the TO square.



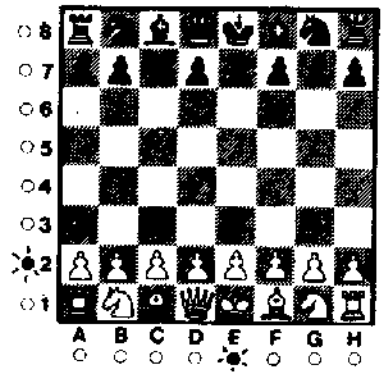
1.8 YOUR FIRST MOVE

The following example will help you to start your first game with the computer.

Let's say you have chosen to move your white pawn located on E2 square (at intersection of file E and rank 2) to the E4 square:

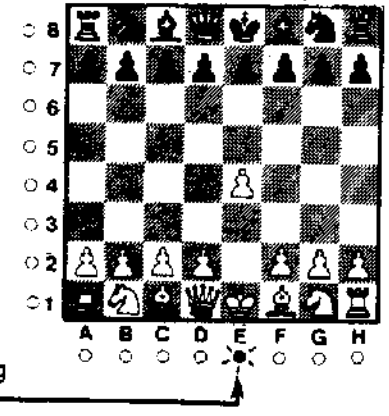
STEP #1

First tilt the pawn and press on square E2. LEDs for file E and rank 2 will light up as shown. Therefore,the E2 square is selected.



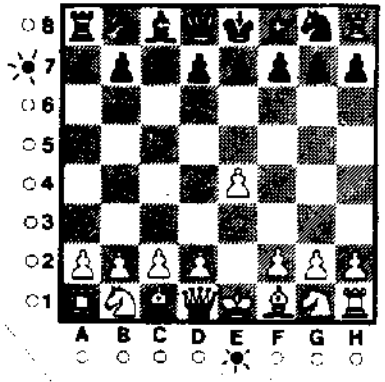
STEP #2

Pick up the pawn on E2, tilt the piece and press on square E4 (the E and 2 LEDs will go out). The computer, at that instant, has recorded the move you made, and has begun to think about its move. (In this example, the computer will respond instantly, so you may not even see the "BLACK" LED flashing).



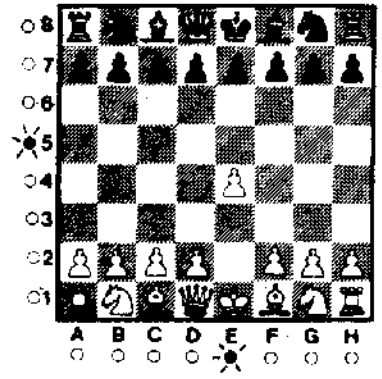
STEP #3

The computer will show you its move by lighting two LEDs for its FROM square. (We have selected the E7 square for this example - you may get a different response). The file E and rank 7 LEDs are lit.



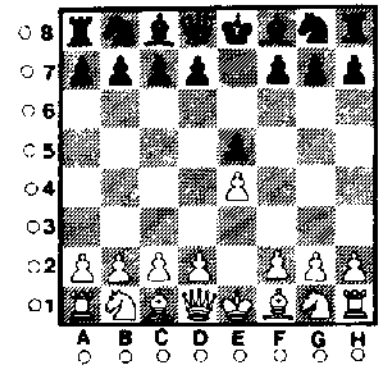
STEP #4

Press down on the black pawn at square E7. The FROM lights will go out and two different LEDs will show you the TO location for that pawn. (We have chosen the E5 square for this example).



STEP #5

Pick up the black pawn on the E7 square, tilt the piece, and press down on the E5 square. The TO lights will go out, and it is time for your next move.



For each move, remember the three basic steps: PRESS, MOVE, AND PRESS AGAIN.

NOTE: You may notice that, when moving YOUR piece, the TO square LEDs DO NOT light, but when moving the computer's piece, the LEDs for the TO square DO light. The reason for this is that once you

have moved your piece to the TO location, the computer is instantly informed of your move, and there is no need for lights. On the computer's move, the TO square is lit to show you where to place the computer's piece.

1.9 ACCIDENTAL WRONG MOVE

If you press down on a piece and the FROM square is lit, but you decide not to make that move, press the CLEAR KEY, which will also turn the LEDs off, and allow you to enter another move of your choice.

If you change your mind after you have entered a whole move (FROM and TO squares) then the computer has accepted your move and is already considering its countermove. The TAKE BACK feature will correct such a mistake. First wait until the computer makes its next move (or press the MOVE KEY to force the computer to stop thinking and display a move). Make the computer's move in the usual way, and then take it back (see Section 2.5). After you have taken back the computer's move, take back your move in the same way. You can now enter any move of your choice.

1.10 ILLEGAL MOVE

The computer will only allow moves that are in compliance with the rules of chess. Illegal moves are not accepted. The computer notifies you of an illegal move or error by beeping a double tone and flashing the LEDs corresponding to the FROM square which was pressed. To undo the error, you have several options:

1. Pick up that piece and press it down on the square you actually intended to move it to; or,
2. Press the piece back down on the flashing FROM square (the LEDs indicating that square will go out), and then enter another move; or,
3. Press the CLEAR KEY to turn the LEDs off and put the piece back down on its original FROM square. Then enter another move of your choice.

IMPORTANT NOTE: Method #3 does not insure that the incorrectly moved piece has been returned to its original location, but rather leaves it up to you to replace the piece correctly.

Please note the following circumstances, which will also cause the computer to beep an illegal move indication:

1. Pressing down on a piece of the wrong color (e.g., it is white's turn and you press down on a black piece).
2. Pressing down on the wrong square when making the computer's move on the board (e.g., the computer lights the LEDs for square D8 and you inadvertently press down on square D7).
3. Pressing down on a empty square without having first pressed down on a piece which can move to that square.

1.11 EN PASSANT

The computer will capture a pawn 'en passant' whenever it determines that such a move is desirable, and it will also recognize when you choose to move 'en passant'. When performing an 'en passant' capture, the computer will first indicate the pawn move in the usual way, by lighting LEDs for the FROM square and then TO square. Then it will light LEDs to indicate the square of the captured pawn, to remind you to remove the pawn from the board. Simply press down on the captured pawn and take it off the board.

1.12 CASTLING

The computer will castle by first performing a King move and then a Rook move. First, the King move must be acknowledged in the usual manner by pressing the FROM square and the TO square. Then the Rook move must be acknowledged by pressing its FROM and TO squares.

You may castle your King in a similar manner by first pressing down on the King's FROM square and then its TO square. At this point, the computer will recognize that you wish to castle, and will light the LEDs for the Rook's move to prompt you to move that piece.

Remember that castling is a King move. If you attempt to castle by moving your Rook first, the computer will acknowledge the Rook's move and immediately begin thinking. To recover from such a mistake, use the TAKE BACK feature to take the Rook move back (see Section 2.5).

1.13 PAWN PROMOTION

As in a normal game of chess, when a pawn reaches the eighth rank, it may be promoted to a higher valued piece (usually a Queen or a Knight). When your pawn reaches the eighth rank, the LEDs for that square will flash until you identify your selection by pressing the key next to the picture of the piece you wish to promote to. (e.g. to promote the pawn to a Queen, press the OPTIONS key after the lights begin to flash awaiting your choice). As soon as you make your selection, the LEDs for that square will go out and the computer will start thinking about its next move.

If one of the computer's pawn reaches the eighth rank, the computer will evaluate its present position and will promote its pawn to the piece it feels will be of most value. Since this will occur automatically, you may wish to use Verify Mode to identify the promoted piece (see Section 2.2.1).

1.14 CHECK AND MATE

Whenever there is a check situation on the board, the CHECK LED will flash.

If the computer determines that you will soon be mated, the computer will announce this as described in Section 5.2. If you have been checkmated, the MATE LED will flash.

If the computer loses a game, it will beep a downscale series of tones, and the I LOSE LED will flash.

1.15 BOOK OPENINGS

You may notice that at the beginning of the game, the computer seems to move very quickly. The reason the computer responds so fast is that it contains a library of book opening positions from grandmaster play. (Book opening: a specialized series of moves used at the beginning of any chess game). If the current board set-up is in the computer's library, it will play one of the proper responses to that position from its collection of moves and will not have to think about that move choice. If you wish to cancel the computer's opening book, you may do so (see Section 3.6). If you wish to select a specific type of opening, see Section 4.

1.16 THINKING ON THE OPPONENT'S TIME

The computer has the ability to think on its opponent's time, a function which improves playing strength on all levels. While the computer is making its move, you are able to use that time to analyze the position and think of a countermove to the move the computer might make. Similarly, the computer also thinks ahead while you are deciding which move to make. The computer does this automatically, whenever you are thinking about your move.

If you do not want the computer to think on your time, you may cancel this feature by selecting the Easy Mode Option (see Section 3.1).

SECTION II—SPECIAL FEATURES

2.1 NEW GAME KEY

After the NEW GAME KEY is pressed, all pieces go back to their initial starting positions and the computer is ready to begin a new game of chess. Please note, however, that if you have just finished a game and you have made any level and/or option selections, these selections WILL REMAIN IN EFFECT for the next game if you use the NEW GAME KEY (except for 64 Selectable Openings feature - see Section 4). This feature is, therefore, especially handy for those of you who tend to select the same options for most games--in this respect, the NEW GAME KEY will provide you with an easy shortcut.

NOTE: To start a completely new game WITHOUT any of the game options selected (FULL RESET), press the OPTIONS KEY AND THEN THE NEW GAME KEY. By doing this, you are erasing all previous entries and options and starting a completely new game (same as unplugging the unit and plugging it back in again). NOTE: Whether you are plugging the unit in or using the Full Reset Option, the computer will always be set on Level 6, and the pieces will be returned to their initial starting positions.

2.2 VERIFY KEY

As described below, the VERIFY KEY serves two specific functions--when used alone, it verifies all board positions; when used together with the OPTIONS KEY, it allows you to change board positions.

2.2.1 VERIFY MODE

Verify Mode will enable you to verify the positions of all pieces--both white and black--at any time before or during a game, whenever it is your turn to move. To verify the position of any piece type, first press the VERIFY KEY. Then press one of the keys adjacent to the picture of the piece type you are interested in (e.g. to verify the position of pawns on the board press the VERIFY KEY and then the MOVE KEY). Each time you press one of the piece symbol keys, a new row (rank) LED is lit and a column (file) LED is lit to show where a piece is located in that row. If the piece is white, the column LED lights steadily. If the piece is black, the column LED flashes. For any given piece symbol selected, the computer will automatically only show you the rows which are occupied by one or more of those pieces (unoccupied rows will be skipped over). If there are no pieces of that type on the board at all, the 8 LED in the upper left-hand corner will light to indicate this.

By repeating this process for each piece type, every piece on the board can be correctly located. To return to normal play press the CLEAR KEY.

2.2.2 PROBLEM MODE

Another important function of the VERIFY KEY occurs when it is used in conjunction with the OPTIONS KEY. By first pressing the OPTIONS KEY (LEDs 1, 2, 3, and 4 will come on to indicate Option Select Mode), and then the VERIFY KEY, you will enter Problem Mode. Problem Mode is used to make changes--to remove or add pieces during a game; to relocate pieces from one square to another; or to set up problems for the computer to work out. Using Problem Mode, you can alter the board set-up at any time before or during a game. You can, for example, change the direction of the game, strengthen your side or the computer's, resurrect lost pieces, or even move your King out of an imminent checkmate situation. You can also set up mate puzzles for the computer to solve using Mate-Finder Mode (see Section 3.8).

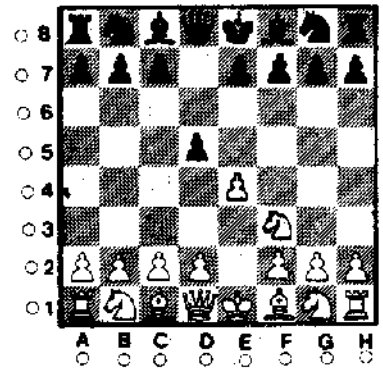
You may enter Problem Mode whenever it is your turn to play. To learn how to use Problem Mode, try the following drill:

1. Press NEW GAME and set up the pieces in their initial positions.

2. Press the OPTIONS KEY and then the VERIFY KEY to enter Problem Mode. Now press the key adjacent to the pawn symbol (MOVE key). Note that the 2 LED and the A-H LEDs are all lit steadily. This indicates that all white pawns are on squares A2-H2. Press the key next to the pawn symbol again, and the 7 LED will be on, with the A-H LEDs flashing. This shows that all black pawns are on squares A7-H7.

3. Now press down on square H7. Note that the H LED goes out. By pressing down on this flashing square, you have cleared the black pawn off the square. Pressing square H7 once more will turn the H LED on steadily. Now a white pawn occupies that square. Presing square H7 a third time will cause the H LED to flash, indicating a black pawn.

Before using this feature to create your own positions, familiarize yourself with the Problem Mode by performing the following steps to set up the sample board position pictured below:



1. Press OPTIONS KEY. (LEDs 1, 2, 3 and 4 on the left hand side of the board will light steadily).

2. Press VERIFY KEY.

3. Press the key next to the pawn symbol (MOVE).

4. Note LEDs are lighting up as described in above drill. Press down on the white pawn located at square E2. (LED will flash). Press the E2 square again, and the light will go out. You have now removed that pawn from the E2 square.

5. Move the white pawn to square E4 and press down. The LED will light up steadily. The computer has now recorded a white pawn on that square.

6. Press the key next to the pawn symbol again. (7 LED is on and A-H LEDs are flashing). Press the black pawn on square D7 (the flashing LED will go off). Move this black pawn to square D5 and press down. (the LED at square D5 will light steadily). Press down on the D5 square again, and the LED will flash. The computer has now recorded a black pawn on square D5, and an empty square D7.

7. Press the key next to the Knight symbol (HINT). Note LEDs are steadily lit at squares B1 and G1 (to show location of white Knights).

8. Press down on the white Knight located on square G1 (the LED will flash). Press down on square G1 again (the LED will go off). The computer has now recorded that square G1 is unoccupied.

9. Press down on square F3. (LED will light steadily). The computer has recorded a white Knight located on the F3 square.

10. Press the CLEAR KEY to exit Problem Mode.

You have successfully entered the position pictured above into the computer's memory.

By the above illustrations it can be seen that:

1. An unlit file LED means no piece of that type on that square in that rank.

2. A steadily lit file LED means a white piece of that type on that square in that rank.

3. A flashing file LED means a black piece of that type on that square in that rank.

Remember to set up pieces in any arrangement:

1. Press the OPTIONS KEY and then the VERIFY KEY.

2. Press the key next to the picture of the piece type you wish to change.

3. Make changes as follows:

   a. Press an empty square and it becomes a WHITE piece.

   b. Press a WHITE piece and it becomes a BLACK piece.

   c. Press a BLACK piece and it becomes an empty square.

To exit Problem Mode, you MUST press the CLEAR KEY.

If you would like to clear all the pieces off the board at once, use Option G1 (Clear Board--see Section 3.7).

2.3 OPTIONS KEY

When the OPTIONS KEY is pressed, LEDs 1, 2, 3 and 4 will light to signal that you have entered Options Select Mode. Please refer to Section 3 for full details on using the OPTIONS KEY to select various game options. Another use of the OPTIONS KEY, when used along with the VERIFY KEY, is to enter Problem Mode in order to change the board. For details, see Section 2.2.2. For complicate

positions, it is a good idea to verify piece locations after you have exited Problem Mode (see Section 2.2.1).

2.4 LEVEL KEY

Your computer has twelve different levels of skill. Level 6 is automatically selected when the computer is first turned on. The first time the LEVEL KEY is pressed, the 6 LED will light to indicate level 6 is currently activated. Pressing the LEVEL KEY again will turn the 7 LED on, indicating Level 7, and so on. After lighting the 8 LED to signify level 8 pressing the LEVEL KEY again will light the 7 and 8 LEDs to indicate Level 9, then the 6 and 7 LEDs to indicate level 10, the 5 and 6 LEDs to indicate level 11, and finally the 4 and 5 LEDs to show Level 12. Pressing the LEVEL KEY once more will set the game down to Level 1 and so on. After you have chosen your desired level of play, press the CLEAR KEY.

The skill levels have been programmed to maximize the player's use of the computer as a training device. Levels 1 through 5 restrict the computer's ability to look ahead. For example, Level 1 restricts the computer to a lookahead of 1 ply or 1 half move, Level 2 restricts the computer's lookahead to 2 plies or 2 half moves (1 move for each side), and so on. As you utilize levels 1 through 5, you will always know how far ahead your opponent is analyzing its next move. Using these levels can train you to improve your ability to see further into a game and you can measure your success by your number of wins!

Levels 6 through 11 restrict the computer's ability to analyze its moves within a defined period of time. If you want to practice budgeting your time by matching the computer's time controls, simply select the appropriate level from the following chart. Your may, however, prefer to discipline yourself to make full use of your allotted time regardless of your opponent's speed. Many times a player is subconsciously inclined to react as quickly as the opponent he faces. You may, therefore, wish to play at a time control of 40 moves in 2 hours with the computer set at a faster time control for this type of practice. Level 12 is INFINITE MODE (see section 2.4.1).

PLAYING LEVEL	TIME CONTROLS	AVERAGE RESPONSE TIME
Level 1	1 ply search	*
Level 2	2 ply search	*
Level 3	3 ply search	*
Level 4	4 ply search	*
Level 5	5 ply search	*
Level 6	60 moves/05 mins.	5 seconds
Level 7	60 moves/15 mins.	15 seconds
Level 8	60 moves/30 mins.	30 seconds
Level 9	60 moves/ 1 hour	1 minute
Level 10	30 moves/ 1 hour	2 minutes
Level 11	40 moves/ 2 hours	3 minutes
Level 12	Infinite Mode	No limit

*As computer is restricted by search depth, not time

controls, the response time varies based upon complexity of the board position.

2.4.1 INFINITE MODE

Level 12 allows no limit to the time used in making each move. The computer will continue to search, looking deeper and deeper until it finds a forced mate or until the search is halted by you. If halted, the computer will make the best move it has found thus far in its search. You can halt the computer's thinking at any time by pressing the MOVE KEY (see Section 2.7). If you would like to see how deep the computer is searching before you force it to respond, see Section 2.4.2.

2.4.2. DISPLAY OF SEARCH DEPTH

Another use of the LEVEL KEY enables you to see how deep the computer is searching while it is thinking about a move. To make use of this function, the LEVEL KEY should be pressed at any time WHILE THE COMPUTER IS THINKING. The computer will then display the depth at which the computer is searching by flashing one of the number LEDs. The number corresponding to the LED which is flashing indicates the number of half-moves the computer is thinking ahead at that time.

After the computer makes its move and you make your next move, the computer automatically resumes showing you the search depth display as it thinks about its next move--you need not press the LEVEL KEY again. To cancel this feature, press the CLEAR KEY WHILE THE COMPUTER IS THINKING.

2.5 TAKE BACK KEY

The TAKE BACK feature allows taking back any move you make or any move made by the computer. In order to use this feature, simply press the TAKE BACK KEY WHEN IT IS YOUR TURN TO MOVE, and the LEDs indicating the TO portion of the last move will light. Press down on the indicated square, and the LEDs showing the FROM portion of the last move will turn on. Press that square, and the lights will go out. You have thus completed the take-back of that move. Please note, however, that after you TAKE BACK one of the computer's moves, the computer's color LED (BLACK or WHITE, whichever is applicable) will still be flashing, but your color LED will also be lit steadily. This serves to remind you that you have the option of entering a move of your own choice for the computer if you wish (see Section 2.5.3). At this point, you can either continue to take back moves by pressing the TAKE BACK KEY again and moving each piece back in turn, or you can go on and continue with the game.

If the game is still in the opening book (see Section 1.15), taking back one or two moves will not disable the opening library. Moves will continue to be played from

book. While in book, you can take back as many moves as you wish, even all the way back to the beginning of the game. Once play is out of book, you can take back up to 256 ply (a ply is one move by either you or the computer). NOTE: If you have entered Problem Mode at any time during a game, the computer's memory of the move list up to that point will be lost. Therefore, move take-backs from that point on will only go back as far as the first move which was made upon exiting Problem Mode.

IMPORTANT: After a capturing move has been taken back, the computer will light the coordinates of the square that the captured piece occupied to remind you to replace that piece. By pressing down on that square, the LEDs will go out and the computer will allow you to continue the take back process. If you do not recall the identity of the captured piece, press down on the square to extinguish the LEDs and enter Verify Mode to check the piece type. Once you have verified the type of piece that occupies that square, place the piece on that square (it is not necessary to press down on that square, as you have already done so before engaging the Verify Mode). Each time the computer lights coordinates to signal replacement of a captured piece, you must acknowledge by pressing on the indicated square before you can continue.

2.5.1 TAKING BACK A CASTLING MOVE

Press the TAKE BACK KEY, and note that the LEDs will light to indicate the Rook's TO move (press that square) and then the Rook's FROM move (press that square). The appropriate LEDs for the King's TO move will then light (press that square), and finally the LEDs for the King's FROM move will light (press that square). The castling take-back is now complete.

2.5.2 TAKING BACK AN EN PASSANT MOVE

Taking back an En Passant maneuver is just like taking back a normal move. However, please note that the computer does NOT light the square of the captured pawn--you must remember to put the pawn back on the board (or check the position using Verify Mode--see Section 2.2.1) For example, if d2-d4 is played, and then e4xd3, a takeback will light up d3 and then e4, but it is up to you to put the pawn back on square d4.

2.5.3 FORCING THE COMPUTER TO MAKE A SPECIFIC MOVE

After using the TAKE BACK KEY to take back one of the computer's moves, it will not start thinking again until after you have pressed the MOVE KEY. At this point, however, you also have the option of making the next move for the computer's side. If you do this, the computer will not start thinking about its next move until after you have made a move of your choice FOR the computer, and then made your own move on the board.

2.6 HINT KEY

The HINT KEY has several different uses, depending upon when it is pressed. If you press the HINT KEY when it is your turn to move, the computer will recommend a move for you to play. The first press of the HINT KEY will light LEDs for the FROM part of the suggested move, and pressing the HINT KEY a second time will show you the TO portion of the move. Press the HINT KEY a third time and the COLOR LED for your move will flash again.

If you press the HINT KEY for a suggested move while you are playing from the computer opening book (see Section 1.15), the suggested move will be from the computer's book. In this case, after you have seen the first suggested move and the COLOR LED has come back on, simply repeat the procedure by pressing the HINT KEY three times again. You will be shown another book choice (if another choice is available). This procedure may be repeated to see all of the book choices that the computer recommends in the current position.

If it is your turn to move and you are no longer in book, pressing the HINT KEY will still give you a suggested move, but only one move choice will be available.

While the computer is thinking, the HINT KEY can enable you to display the move the computer is considering at any given moment. At any time WHILE THE COMPUTER IS THINKING, press the HINT KEY and the computer will light the LEDs for the square it is considering moving FROM. Press the HINT KEY again, and the computer will light the LEDs for the TO square. A third press of the HINT KEY will turn the TO square LEDs OFF. Please note that the beep tone does not sound during this procedure.

2.7 MOVE KEY

Like the HINT KEY, the MOVE KEY also has several different uses. Pressing the MOVE KEY when it is your turn to move changes sides with the computer. The computer will then take over your pieces and make a move. For example: suppose you are White and it is your turn to make a move. If you press the MOVE KEY, the computer will make the move for White. By alternately pressing the MOVE KEY after each move by the computer, you can watch the computer play against itself.

Pressing the MOVE KEY while the computer is thinking will force the computer to make its move immediately.

The MOVE KEY also has a specific function when you are in Monitor Mode (see Section 3.3) or when you are playing black from the bottom of the board (see Section 3.4).

2.8 CLEAR KEY

The CLEAR KEY has several uses:

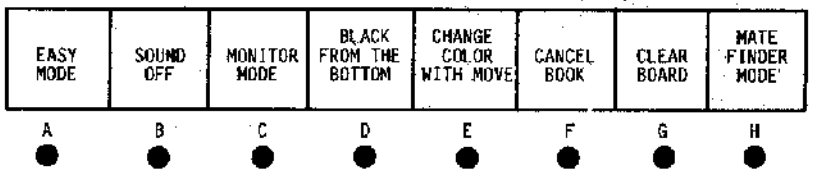
1. Pressing the CLEAR KEY will clear an illegal move (Section 1.10).

2. If you press down on a piece and the FROM square is lit, but you decide not to complete that move, pressing the CLEAR KEY will turn the LEDs offf so that you can enter another move.

3. You must press the CLEAR KEY in order to EXIT: Option Select Mode (see Section 3), Problem Mode (see Section 2.2.2) or 64 Selectable Openings (see Section 4).

SECTION III—GAME OPTIONS

In addition to the Keys and Special Features described previously, a number of additional options may be selected to enhance your enjoyment of the computer. The game options are user selectable (before the start of a new game or whenever it is your turn to move during a game), and can be activated by pressing various squares on the playing surface. When Options Select Mode is chosen by pressing the OPTIONS KEY, normal game play is suspended and squares A1 through H1 are used to select options as illustrated.



Press the OPTIONS KEY to enter Options Select Mode. Whenever you are in this mode, LEDs 1, 2, 3, and 4 will light steadily to indicate this. The options which are available are found on squares A-1-H1. After pressing the OPTIONS KEY, activate the option of your choice by PRESSING DOWN ON THE SQUARE DESIGNATED FOR THAT PARTICULAR OPTION. The LED next to that square will light to show that you have selected that option. You may choose any number of options at the same time as desired. After selecting your option(s), always press the CLEAR KEY to exit Options Select Mode.

The descriptions which follow will help you decide which options may interest you for any particular game. BE SURE TO PRESS THE OPTIONS KEY TO ENTER OPTIONS SELECT MODE BEFORE ATTEMPTING TO CHOOSE ANY OF THE OPTIONS DESCRIBED IN THIS SECTION.

As each option is selected by pressing the desired square, the LED next to that square will light to indicate the selected option. If you decide after selecting an option that you would rather not have that option in effect, simply press the option square again. The LED next to it will go out to indicate that is it no longer in effect.

If you decide you want to cancel an option after you have already pressed the CLEAR KEY to get out of Options Select Mode, simply press the OPTIONS KEY again to get back into that mode. Note that the LEDs for Options A1, B1, C1, D1 or H1 are on if they have been selected and are in effect. To cancel any of them, press the appropriate option squares and the LEDs in those squares will go out. Then press the CLEAR KEY to exit Option Select Mode.

NOTE: This rule does not apply to Options E1, F1 and G1 because they represent either a one-time selection (Cancel Book and Clear Board) or an option which must be entered separately each time for it to take effect (Change Color). If any of these options are chosen, therefore, once you go back into Option Select Mode, their LEDs will NOT be on, even though they may have been selected.

3.1 SQUARE A1 - EASY MODE

Easy Mode is an option which weakens all playing levels without affecting the computer's time controls. This is accomplished by restricting the computer's use of its allotted time. Ordinarily, the computer will do some of its thinking on your time--while you are contemplating your next move (see Section 1.16). This feature is part of what makes this computer such a tough opponent. For example: If you set the computer on Level 6 to give it roughly five seconds per move, but you take two minutes to consider your move, and the computer guesses what you are going to play, the computer would have used the whole two minutes to think about its reply. You might as well have set it on Level 10!

Selecting Easy Mode will prevent the computer from thinking on your time. Since this weakens all of the skill levels, you are thus given the option of having more playing levels to choose from.

3.2 SQUARE B1 - SOUND OFF

For completely silent operation of the game, press Square B1 to select the Sound OFF option. To turn the sound on again, go back into Options Select Mode and press Square B1 again. This option can be changed as often as desired during a game.

NOTE: When selecting or canceling Sound Off, this option does not actually take effect until AFTER the CLEAR KEY is pressed to exit Options Select Mode.

3.3 SQUARE C1 - MONITOR MODE

Pressing Square C1 selects Monitor Mode. This mode allows humans to play both sides of the game, with the computer acting as a referee and checking each move for legality.

If the moves played are in the computer's opening book, the computer will follow along in book, and the HINT KEY will give suggested book moves. As soon as the moves played deviate from the computer's book, the HINT KEY will no longer give hints. When this occurs, you may see what move the computer would make at any time in the game by pressing the MOVE KEY. The computer will start thinking and make a move, but after moving the piece, Monitor Mode will still be in effect.

To exit this mode and continue playing the game against the computer, press the OPTIONS KEY, SQUARE C1, and the CLEAR KEY to cancel Monitor Mode. Then simply make your next move and the computer will respond as in a normal game.

3.4 SQUARE D1 - BLACK FROM THE BOTTOM

Option D1 allows you to play with the Black pieces set up at the bottom of the board. If you choose this option, be sure to set the pieces up correctly. Use the Verify Mode (see Section 2.2.1) to be certain of where the pieces should be placed. Once you have verified proper piece locations, press the MOVE KEY to make the computer start thinking.

NOTE: Switching to this option during a game is not advised.

3.5 SQUARE E1 - CHANGE COLOR WITH MOVE

Option E1 is primarily used in conjunction with Problem Mode (see Section 2.2.2). After exiting Problem Mode, you may change the color to move by entering Option Select Mode and Pressing Square E1.

3.6 SQUARE F1 - CANCEL OPENING BOOK

Choosing Option F1 locks out the computer's opening book (see Section 1.15). When this option is in effect, the computer will have no opening library from which to draw its moves, so it will be forced to take time to think in order to determine its own best move from the beginning of the game.

3.7 SQUARE G1 - CLEAR BOARD

Pressing Square G1 will remove all the chess pieces from the board in the computer's internal memory. This feature is extremely valuable for setting up problems, and it is, therefore, generally used in conjunction with Problem Mode (see Section 2.2.2).

NOTE: After clearing the board with Option G1 and then exiting Option Select Mode, the computer will flash the STALEMATE and DRAW LEDs. This simply alerts you to the fact that play cannot continue until both Kings are entered on the board. As you enter into Problem Mode to set up the board, be sure to enter both Kings along with the other desired pieces.

3.8 SQUARE H1 - MATE FINDER MODE

This option allows you to set up mate problems for the computer to solve. To enter Mate Finder Mode, activate OPTIONS and press square H1. After pressing the CLEAR KEY to exit OPTIONS mode, the LEVEL key should be used to

enter the desired number of moves to mate. For example, if you wish to set up a board position and instruct the computer to search for up to mate in four moves:

1. Enter PROBLEM MODE and set up the desired position (see Section 2.2.2).
2. Verify that the pieces are correctly located (see Section 2.2.1).
3. Press OPTIONS key.
4. Press square H1.
5. Press the CLEAR key.
6. Press the LEVEL key until the 4 LED is lit.
7. Press the CLEAR key to enter this number selection.
8. Press MOVE to make the computer start thinking about the mate problem.

The computer will think for as long as it takes to find the solution to the problem. As soon as the solution is found, the computer will beep and announce the mate by flashing both the MATE LED and the LED which corresponds to the number of mating moves. For a mate in 3, for instance, the computer will flash the MATE LED and the 3 LED. NOTE: The computer will be able to find shorter mates than the number chosen, but not longer mates. For example, if you set the computer to solve mate in 4, but it finds a mate in 2, it will announce that mate. It cannot, however, solve a mate in 5 at this setting.

After the computer has announced the solution to a mate problem, you may request that it continue to search for other possible solutions to the same problem. For details on the use of this feature, see Section 5.2.1.

If the computer cannot find a mate at the level you have chosen, the computer will respond by flashing the 3 and 4 LEDs on the side of the board (see Section 5.3).

SECTION IV
64 SELECTABLE OPENINGS

The 64 SELECTABLE OPENINGS feature augments your Fidelity chess computer's potential for diversion and instruction. The casual player now has the option of easily directing the game into a fresh opening array. The student can rapidly choose from the variety of paths that the beginning of a chess game can take.

He can, for instance, trod down the well-worn path first charted by the 16th century Spanish priest, Ruy Lopez (Squares A1 to F1). Alternately, he can cruise along the still unfinished freeways of recently popular openings, such as the Hedgehog System against the English Opening (Square C7) or the tactically sharp Lasker-Sveshnikov Variation of the Sicilian Defense (Square F3).

The organization of the openings on the chessboard will allow the user to select the type of game he likes or might be in the mood to play. The fan of an immediate, open-fisted fight might find a home among the open games (Squares A1 to H1 and A2 to H2). A devotee of the rugged, positional struggles, favored during the first few decades of this century, will find enjoyment among the double d-pawn openings (Squares A5 to H5). An enthusiast of non-committal, crisis-postponing development, currently in fashion, will rest at Squares A7 to H7. An individualist might steer into the unusual opening set-ups (Squares A8 to H8).

With its built-in opening book and this additional 64 SELECTABLE OPENINGS feature, your Fidelity chess computer becomes an erudite "opening theorist". By flashing its LEDs, it can display the accumulated wisdom of generations of chess players and countless tournament games. It reproduces opening sequences precisely and faultlessly. However, your chess computer, limited in its vocabulary by what the LEDs can communicate, cannot name the openings it "knows".

This gap is filled by the "GUIDE TO THE 64 SELECTABLE OPENINGS" which follows. Each opening is named, and its moves are written in standard algebraic notation. Though the nomenclature of chess openings hardly resembles a system of computer usable logic, it does evoke the game's rich heritage. Punch the E2 square, and you are playing an opening first described by the chessplayer-composer Andre Philidor (1726-1795). Choose Square F4, and you are in the sequence named for the fiery World Champion Alexander Alekhine (1892-1946). Wander your finger onto square D5, and you have selected an opening named for the forgotten Pocono Mountain resort Cambridge Springs. In 1904, during its heyday, it hosted one of the greatest tournaments ever held on American soil. Rest along the third rank (Squares A3 to H3), and you are among the complicated thickets of the Sicilian Defense--nowadays just about everyone plays it, but no one seems to know how and why it got its name.

Luis Ramirez de Lucena wrote the earliest surviving printed book of chess. In it, he presented rudimentary analysis of opening variations, as well as ruminations on love. Our age, when printed circuits are supplanting printed pages, is less romantic. But, perhaps we do better in sticking to the topic at hand. If your topic is chess openings, your Fidelity chess computer, enhanced by the 64 SELECTABLE OPENINGS feature, stands ready to flash its lights at your service.

4.1 SELECTING THE DESIRED OPENING

You may activate the 64 SELECTABLE OPENINGS feature at the beginning of any new game (after the unit has just been plugged in, after effecting a FULL RESET, or after pressing the NEW GAME Key) to activate the 64 SELECTABLE OPENINGS feature, simply press the Take Back Key. The LEDs will flash, indicating that this feature is in effect. At this point, you may select the opening of your choice by pressing down on one of the 64 board squares. Then press the CL Key to enter your choice into the computer.

NOTE: The GUIDE TO THE 64 SELECTABLE OPENINGS (Section 4.3) lists all of the openings, the corresponding board squares, and the moves contained in each opening.

4.2 OUTLINE OF THE 64 OPENINGS

Board Squares	OPENINGS White's First Move	Black's Response
A1 to H1 A2 to H2	1.e4	e5 (Double King Pawn)
A3 to H3	1.e4	c5 (Sicilian Defense)
A4 to H4	1.e4	moves other than 1..e5 or 1..c5
A5 to H5	1.d4	d5
A6 to H6	1.d4	Moves other than 1..d5
A7 to H7	1.c4	
A8 to H8	1 First moves other than 1.e4, 1.d4 or 1.c4	

The 64 Selectable Openings feature is automatically erased if NEW GAME or Full Reset is activated. You must, therefore, activate this feature each time a new game is started if you wish to play a specific opening.

4.3 GUIDE TO THE 64 SELECTABLE OPENINGS

SQUARE A1
Ruy Lopez -
Exchange Variation
1.e4 e5
2.Nf3 Nc6
3.Bb5 a6
4.Bc6 dc6
5.0-0

SQUARE B1
Ruy Lopez -
Classical Defense
1.e4 e5
2.Nf3 Nc6
3.Bb5 Bc5

SQUARE C1
Ruy Lopez -
Arkhangelsk Variation
1.e4 e5
2.Nf3 Nc6
3.Bb5 a6
4.Ba4 Nf6
5.0-0 b5
6.Bb3 Bb7

SQUARE D1
Ruy Lopez -
Open (Tarrasch) Defense
1.e4 e5
2.Nf3 Nc6
3.Bb5 a6
4.Ba4 Nf6
5.0-0 Ne4
6.d4 b5
7.Bb3 d5
8.de5 Be6

SQUARE E1

Ruy Lopez - Closed
(Chigorin) Defense
1.e4 e5
2.Nf3 Nc6
3.Bb5 a6
4.Ba4 Nf6
5.0-0 Be7
6.Re1 b5
7.Bb3 d6
8.c3 0-0
9.h3 Na5
10.Bc2 c5
11.d4 Qc7

SQUARE F1
Ruy Lopez -
Closed (Breyer) Defense
1.e4 e5
2.Nf3 Nc6
3.Bb5 a6
4.Ba4 Nf6
5.0-0 Be7
6.Re1 b5
7.Bb3 d6
8.c3 0-0
9.h3 Nb8
10.d4 Nbd7

SQUARE G1
Giuoco Piano
1.e4 e5
2.Nf3 Nc6
3.Bc4 Bc5
4.c3

SQUARE H1
Giuoco Pianissimo
1.e4 e5
2.Nf3 Nc6
3.Bc4 Bc5
4.d3

SQUARE A2
Two Knights Defense
1.e4 e5
2.Nf3 Nc6
3.Bc4 Nf6

SQUARE B2
Four Knights Opening
1.e4 e5
2.Nf3 Nc6
3.Nc3 Nf6

SQUARE C2
Scotch Game
1.e4 e5
2.Nf3 Nc6
3.d4 ed4
4.Nd4

SQUARE D2
Petrov Defense
1.e4 e5
2.Nf3 Nf6

SQUARE E2
Philidor Defense
1.e4 e5
2.Nf3 d6

SQUARE F2
King's Gambit
1.e4 e5
2.f4

SQUARE G2
Vienna Game
1.e4 e5
2.Nc3

SQUARE H2
Bishop's Opening
1.e4 e5
2.Bc4

SQUARE A3
Sicilian Defense -
Najdorf Variation
1.e4 c5
2.Nf3 d6
3.d4 cd4
4.Nd4 Nf6
5.Nc3 a6

SQUARE B3
Sicilian Defense -
Scheveningen Variation
1.e4 c5
2.Nf3 d6
3.d4 cd4
4.Nd4 Nf6
5.Nc3 e6

SQUARE C3
Sicilian Defense -
Dragon Variation
1.e4 c5
2.Nf3 d6
3.d4 cd4
4.Nd4 Nf6
5.Nc3 g6

SQUARE D3
Sicilian Defense -
Taimanov Variation
1.e4 c5
2.Nf3 e6
3.d4 cd4
4.Nd4 a6

SQUARE E3
Sicilian Defense -
Accelerated
Fianchetto Variation
1.e4 c5
2.Nf3 Nc6
3.d4 cd4
4.Nd4 g6
5.Nc3 Bg7
6.Be3 Nf6

SQUARE F3
Sicilian Defense -
Lasker-Sveshnikov
Variation
1.e4 c5
2.Nf3 Nc6
3.d4 cd4
4.Nd4 Nf6
5.Nc3 e5
6.Ndb5 d6

SQUARE G3
Sicilian Defense -
Closed Variation
1.e4 c5
2.Nc3 Nc6
3.f4

SQUARE H3
Sicilian Defense -
Alapin's Variation
1.e4 c5
2.c3

SQUARE A4
Caro Kann -
Exchange Variation
1.e4 c6
2.d4 d5
3.ed5 cd5
4.Bd3

SQUARE B4
Caro Kann -
Main Line
1.e4 c6
2.d4 d5
3.Nc3 de4
4.Ne4 Bf5
5.Ng3 Bg6
6.h4 h6
7.Nf3 Nd7
8.h5 Bh7
9.Bd3 Bd3
10.Qd3

SQUARE C4
French Defense -
Advance Variation
1.e4 e6
2.d4 d5
3.e5 c5
4.c3 Nc6
5.Nf3 Qb6

SQUARE D4
French Defense -
Winawer Variation
1.e4 e6
2.d4 d5
3.Nc3 Bb4
4.e5 c5
5.a3 Bc3
6.bc3

SQUARE E4
Center Counter Defense
1.e4 d5
2.ed5 Qd5
3.Nc3 Qa5
4.d4

SQUARE F4
Alekhine's Defense
1.e4 Nf6
2.e5 Nd5

SQUARE G4
Pirc Defense -
Austrian Attack
1.e4 d6
2.d4 Nf6
3.Nc3 g6
4.f4 Bg7
5.Nf3

SQUARE H4
Modern Defense
1.e4 g6
2.d4 Bg7

SQUARE A5
Queen's Gambit
Accepted I
1.d4 d5
2.c4 dc4
3.Nf3 Nf6
4.e3 e6
5.Bc4 c5
6.0-0 a6
7.Qe2 b5
8.Bb3 Bb7

SQUARE B5
Queen's Gambit
Accepted II
1.d4 d5
2.c4 dc4
3.e4 e5
4.Nf3

SQUARE C5
Queen's Gambit Declined -
Tartakower's Variation
1.d4 d5
2.c4 e6
3.Nc3 Nf6
4.Bg5 Be7
5.e3 0-0
6.Nf3 h6

SQUARE D5
Queen's Gambit Declined -
Cambridge Springs Defense
1.d4 d5
2.c4 e6
3.Nc3 Nf6
4.Bg5 Nbd7
5.e3 c6
6.Nf3 Qa5

SQUARE E5
Queen's Gambit Declined -
Slav Defense
1.d4 d5
2.c4 c6
3.Nf3 Nf6
4.Nc3 dc4
5.a4 Bf5
6.e3 e6
7.Bc4 Bb4

SQUARE F5
Queen's Gambit Declined -
Chigorin's Defense
1.d4 d5
2.c4 Nc6

SQUARE G5
Colle System
1.d4 d5
2.Nf3 Nf6
3.e3 e6
4.Bd3 c5
5.c3

SQUARE H5
Veresov's Opening
1.d4 d5
2.Nc3 Nf6
3.Bg5

SQUARE A6
Gruenfeld Defense -
Main Line
1.d4 Nf6
2.c4 g6
3.Nc3 d5
4.cd5 Nd5
5.e4 Nc3
6.bc3 Bg7
7.Bc4 0-0
8.Ne2 c5

SQUARE B6
Nimzo-Indian Defense -
Rubinstein Variation
1.d4 Nf6
2.c4 e6
3.Nc3 Bb4
4.e3

SQUARE C6
Queen's Indian Defense
1.d4 Nf6
2.c4 e6
3.Nf3 b6

SQUARE D6
King's Indian Defense -
Taimanov "Long" Variation
1.d4 Nf6
2.c4 g6
3.Nc3 Bg7
4.e4 d6
5.Nf3 0-0
6.Be2 e5
7.0-0 Nc6
8.d5 Ne7

SQUARE E6
King's Indian Defense -
Saemisch System
1.d4 Nf6
2.c4 g6
3.Nc3 Bg7
4.e4 d6
5.f3 0-0
6.Be3

SQUARE F6
Modern Benoni Defense
1.d4 Nf6
2.c4 c5
3.d5 e6
4.Nc3 ed5
5.cd5 d6
6.e4 g6
7.Nf3 Bg7

SQUARE G6
Benko Gambit
1.d4 Nf6
2.c4 c5
3.d5 b5
4.cb5 a6
5.ba6 Ba6

SQUARE H6
Dutch Defense
1.d4 f5
2.c4 Nf6
3.g3 e6
4.Bg2 Be7

SQUARE A7
English Opening -
Symmetrical Fianchetto
1.c4 c5
2.Nc3 Nc6
3.g3 g6
4.Bg2 Bg7
5.Nf3 Nf6
6.0-0 0-0

SQUARE B7
English Opening -
Symmetrical (Four Knights)
1.c4 c5
2.Nf3 Nf6
3.d4 cd4
4.Nd4 e6
5.Nc3 Nc6

SQUARE C7
English Opening -
Hedgehog Defensive System
1.c4 c5
2.Nf3 Nf6
3.Nc3 e6
4.g3 b6
5.Bg2 Bb7
6.0-0 a6
7.d4 cd4
8.Qd4 d6
9.b3 Nbd7

SQUARE D7
English Opening -
Rubinstein Defense
1.c4 c5
2.Nc3 Nf6
3.g3 d5
4.cd5 Nd5
5.Bg2 Nc7
6.Nf3 Nc6

SQUARE E7
English Opening -
Reverse Sicilian I
1.c4 e5
2.Nc3 Nc6
3.g3 g6
4.Bg2 Bg7
5.d3 d6
6.Nf3 Nf6
7.0-0 0-0

SQUARE F7
English Opening -
Reverse Sicilian II
1.c4 e5
2.Nc3 Nc6
3.Nf3 Nf6
4.g3 Bb4

SQUARE G7
English Opening -
Keres' Defense
1.c4 e5
2.Nc3 Nf6
3.g3 c6
4.Nf3 e4
5.Nd4 d5

SQUARE H7
English Opening -
1...Nf6, 2...e6
Defense
1.c4 Nf6
2.Nc3 e6
3.e4

SQUARE A8
Reti Opening -
London System
1.Nf3 d5
2.g3 Nf6
3.Bg2 c6
4.0-0 Bf5
5.d3 e6

SQUARE B8
King's Indian Attack
1.Nf3 Nf6
2.g3 g6
3.Bg2 Bg7
4.0-0 0-0
5.d3 d6
6.e4 c5

SQUARE C8
Bird's Opening
1.f4 d5
2.Nf3 Nf6

SQUARE D8
Larsen's Opening
1.b3 e5
2.Bb2 Nc6

SQUARE E8
Polish Opening
1.b4 e5
2.Bb2 Bb4
3.Be5 Nf6

SQUARE F8
King's Fianchetto
1.g3 e5
2.Bg2 d5

SQUARE G8
Queen's Knight Opening
1.Nc3 d5
2.e4 de4
3.Ne4 e5

SQUARE H8
Grob's Attack
1.g4 d5
2.Bg2 c6

SECTION V
MATE AND DRAW ANNOUNCEMENT

Your computer has the ability to announce forced mates against its opponent. In addition, the computer can recognize and claim three different types of draws: draw by stalemate, draw by the 50-move rule, and draw by three-time repetition.

NOTE: The computer uses different combinations of LEDs to signify the different types of draws. Please refer to the appropriate sections for details on the specific draw announcements.

5.1 CHECK ANNOUNCEMENT

Whenever there is a check situation on the board, the CHECK LED will flash.

5.2 MATE ANNOUNCEMENT AGAINST OPPONENT

When the computer discovers a forced mate against its opponent, it will flash the MATE LED and the LED on the left-hand side of the board which corresponds to the number of moves until mate (the computer is capable of announcing up to mate in 11). When this occurs, you can either resign or press the CLEAR KEY to continue play. If the CLEAR KEY is pressed, the computer will indicate its move in the usual way. If the move which the computer displays is the actual mating move, as soon as the move is entered on the board, the MATE LED will flash by itself to signify checkmate.

5.2.1 ALTERNATE SOLUTIONS

After the computer has announced the solution to a mate problem, you may request the computer to search for other possible solutions to the same problem. To use this feature, you must observe the following: When the computer announces mate, press the CLEAR KEY as previously described in order to see the FROM square of the mating move. Press down on the FROM square and the computer will indicate the TO square. At this point, DO NOT press down on the lighted TO square as you would ordinarily do to make the move. Instead, simply note which move the computer was going to make, and then press the MOVE KEY. The computer will then start thinking again, in order to search for another possible mate. This process can be repeated after each solution is found until the computer indicates that no more solutions can be found (see Section 5.3).

5.3 NO MATE FOUND

When Mate Finder Mode is selected (see Section 3.8), the computer searches for the solutions to specific mate problems. If there is no mate present or if the computer cannot find a mate, the computer will flash LEDs 3 and 4. Pressing the CLEAR KEY will turn these LEDs off and cause the computer to announce a move.

5.4 DRAW BY STALEMATE

A game of chess is drawn by stalemate if the player whose turn it is to move has no legal moves, but his King is not in check. The computer claims this draw by flashing the STALEMATE and DRAW LEDs. When this occurs, the game is over and cannot be continued.

NOTE: The computer will also flash the STALEMATE and DRAW LEDs whenever you try to play with one or both Kings missing from the board. This will occur after clearing the board (see Section 3.7), or after exiting Problem Mode and inadvertently leaving the King(s) off the board. To continue play, simply go into Problem Mode and add the missing King(s) to the board as described in Section 2.2.2.

5.5 DRAW BY THE 50-MOVE RULE

If 50 moves are played in a game without either side having moved a pawn or captured a piece, the game is drawn by the 50-move rule. When 2 the computer detects that this has happened, it will claim a draw by flashing the DRAW LED and LEDs 1 and 2. At this point, you may continue the game if you wish by pressing the CLEAR KEY.

5.6 DRAW BY THREE-TIME REPETITION

When the same position occurs three times in a game of chess where the same side has the move each time, the game is drawn by repetition of position.

When the computer is about to make a move that will result in the same position being repeated for the third time, it will flash the DRAW LED and LEDs 2 and 3. Pressing the CLEAR KEY at this point will display the computer's drawing move, allowing you to continue the game if you wish.

When the computer recognizes that its opponent has made a move that results in a third repetition, it claims the draw by flashing the DRAW LED and LEDs 2, 3, and 4. Press the CLEAR KEY to continue playing the game.