

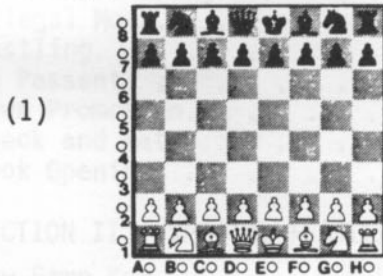


OWNER'S MANUAL
INSTRUCTION BOOKLET
FOR

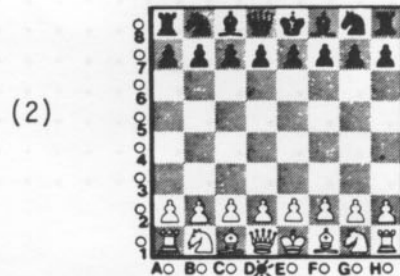
EXCELLENCE (Model 6080)
EXCELLENCE VOICE (Model 6093)
EXCEL DISPLAY (Model 6092)

EASY STEPS
TO PLAYING YOUR FIRST GAME
(MODELS 6080,6092,6093)

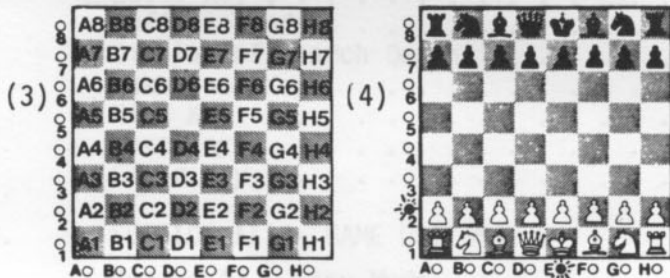
1. Set up the pieces in their appropriate positions (1).



2. Turn on computer. The D(WHITE) LED will flash indicating your move (2).



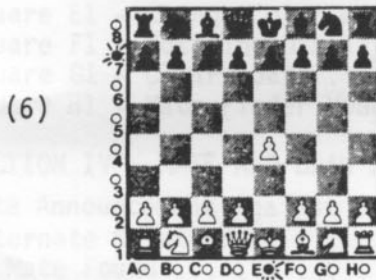
3. Let's say you have chosen to move your white pawn located on the E2 square to the 4 square (3). Press down on the E2 pawn. File "E" and rank "2" will light to indicate the E2 square is selected (4).



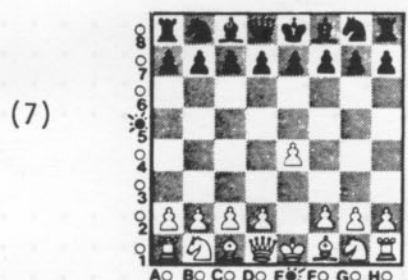
4. Pick up the E2 pawn and press down on square E4. Your move is automatically recorded. The E(BLACK) LED will flash unless the computer responds instantly (5).



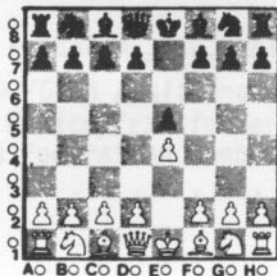
5. The computer will show you its move by lighting two LEDs for its FROM square. (We have selected the E7 square for this example.) File "E" and rank "7" are lit (6).



6. Press down on the black pawn on square E7. The FROM lights will go out and two LEDs will show you the TO location (i.e. square E5) (7).



7. Pick up the black pawn on E7, and press down on the E5 square. The TO lights will go out, and it is time for your next move (8).



8. You may now proceed with your next move entry as described in steps 3 and 4, and enter the computer's responses as in steps 5, 6 and 7.

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SECTION I—BASIC OPERATION

INTRODUCTION

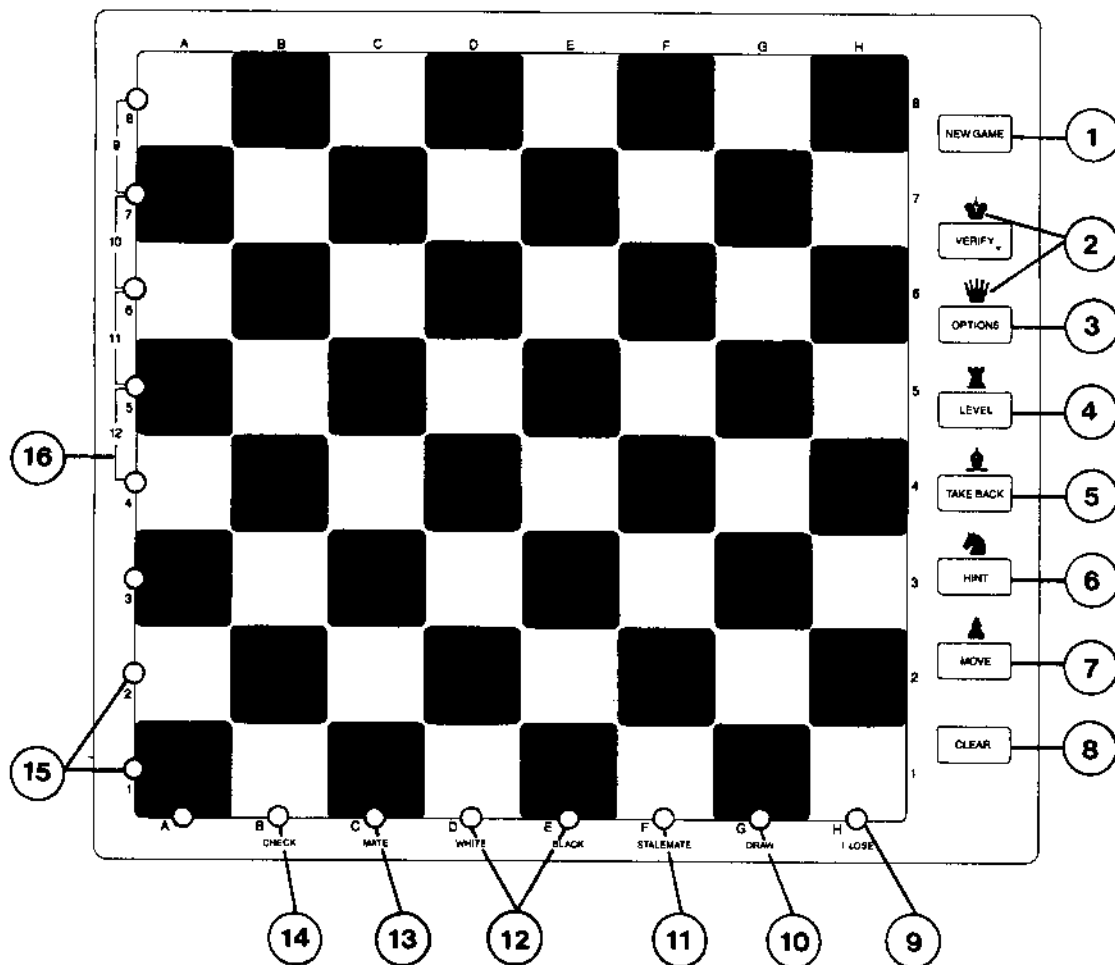
This manual pertains to the operation of Fidelity Models 6080, 6092 and 6093. Section V of this manual covers details regarding additional features found in the 6092 and 6093 models.

It has been our intention with these products to provide you with a value beyond comparison. We feel confident that your Fidelity chess computer will challenge and delight you now and for years to come.

KEYS AND INDICATORS

The following is a brief description of the basic functions of the computer's keys and indicators.

BOARD DIAGRAM



FUNCTION KEYS

- 1-NEW GAME KEY: USED TO START A NEW GAME.
- 2-VERIFY KEY: TO ENTER VERIFY MODE TO CHECK PIECE POSITIONS.
- 3-OPTIONS KEY: USED TO ENTER OPTION MODE; ALSO FOR PROBLEM MODE.
- 4-LEVEL KEY: TO SELECT AND CHANGE LEVELS OF PLAY.
- 5-TAKE BACK KEY: USED TO TAKE BACK MOVES.
- 6-HINT KEY: USED TO OBTAIN SUGGESTED MOVE.
- 7-MOVE KEY: TO CHANGE SIDES WITH THE COMPUTER/WATCH COMPUTER PLAY BOTH SIDES.
- 8-CLEAR KEY: USED TO EXIT FROM OPTIONS MODE AND PROBLEM MODE, TO CANCEL ILLEGAL MOVE INDICATION OR TO CLEAR A "FROM" SQUARE BEFORE YOU MOVE TO THE "TO" SQUARE.

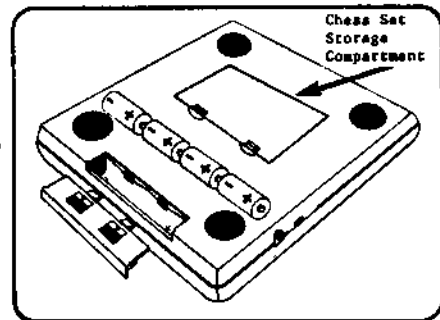
LED'S (LIGHT EMITTING DIODES)

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

BATTERY/AC OPERATION

Your computer is designed to operate on 4 "C" size alkaline batteries.

Depending upon how frequently you play, you may wish to purchase the optional AC transformer available for this product. DO NOT USE ANY OTHER TRANSFORMER THAN THE FIDELITY TRANSFORMER DESIGNED SPECIFICALLY FOR THIS PRODUCT. FAILURE TO DO SO CAN CAUSE DAMAGE TO THIS PRODUCT WHICH WILL VOID THE WARRANTY. If you have difficulty locating a Fidelity transformer locally, an order form is provided in this manual for your convenience.



ACCIDENTAL WRONG MOVE

If you press down on a piece and the FROM square is lit, but you decide not to make that move, you can press the CLEAR key to turn off the LED and enter the move of your choice.

ILLEGAL MOVE

Your computer will only allow moves that are in compliance with the rules of chess. The computer will notify you of an illegal or incorrect move by emitting a downscale beep. If this occurs while you are attempting to make your move, press CLEAR and make the correct move. If this occurs while you are entering the computer's move, it will keep the correct square lit until you are able to locate it and register the proper computer move.

CASTLING

Your computer will castle by first performing the King move. Once you have entered the computer's King move, the Rook move will be displayed and must also be entered.

You may castle your King in a similar manner by first entering the King move. Once the King move is entered the computer will recognize that you wish to castle and will light the LEDs for the Rook's move prompting you to complete the maneuver.

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 the 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.

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.

When one of the computer's pawns 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.

CHECK AND MATE

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

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

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 over 12,000 book opening positions from grandmaster play. (Book openings: 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.

SECTION II--SPECIAL FEATURES

NEW GAME KEY

When 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. 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.

VERIFY KEY

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 (Problem 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, either press the CLEAR KEY, or simply press down on any board square.

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

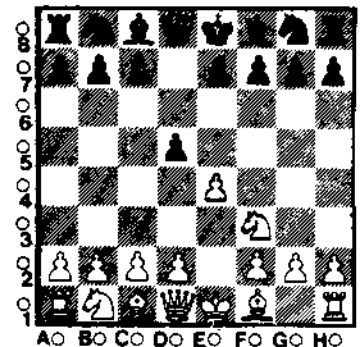
any time before or during a game. You can, for example, change the direction of the game, strengthen your side or the computer's, resurrect lost pieces, or even move your King out of an imminent checkmate situation. You can also set up mate puzzles for the computer to solve using Mate Finder Mode (see 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 on 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.

Before using this feature to create your own positions, familiarize yourself with 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. No file LED lit means no piece of that type on that square.
2. A steadily lit file LED means a WHITE piece of that type on that square.
3. A flashing file LED means a BLACK piece of that type on that square.

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 III).

OPTIONS KEY

When the OPTIONS KEY is pressed, LEDs 1, 2, 3, and 4 will light to signal that you have entered Option Select Mode. Please refer to Section III for full details on using the OPTIONS KEY to select various game options.

LEVEL KEY

Your computer has twelve different levels of play. 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. The surface of the chess board is marked to indicate which LEDs come on for each level so that there will be no confusion. After you have chosen your desired level of play, either press the CLEAR KEY or press down on any board square.

The levels have been programmed to maximize the player's use of the computer as a training device. Levels 1 through 4 restrict the computer's ability to look ahead. For example, Level 1 restricts the computer to a look ahead of 1 ply or 1 half move, Level 2 restricts the computer's look ahead to 2 plies or 2 half moves (1 move for each side), and so on. As you utilize Levels 1 through 4, 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!

Level 5 is for Blitz Chess. On this level, the computer is programmed to play a five-minute game, and will internally count down time for both players starting at 5 minutes.

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. You 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.

PLAYING LEVEL	TIME CONTROLS	AVERAGE RESPONSE TIME
Level 1	Fixed depth search	1 ply*
Level 2	" " "	2 ply*
Level 3	" " "	3 ply*
Level 4	" " "	4 ply*
Level 5	Blitz Level	5 seconds
Level 6	60 moves / 5 minutes	5 seconds
Level 7	60 moves / 15 minutes	15 seconds
Level 8	60 moves / 30 minutes	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.

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. When 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. If you would like to see how deep the computer is searching before you force it to respond, see DISPLAY OF SEARCH DEPTH.

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 will automatically resume 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.

TAKE BACK KEY

The Take Back feature allows you to take back any move you make or any move made by the computer. The computer will allow you to take back up to 512 half moves (256 moves per side) in a single game! To use this feature, simply press TAKE BACK when it is your turn to move, and the LEDs indicating the TO square of the last move will light. Press down on the indicated square, and the LEDs showing the FROM portion will light. Press that square, and the LEDs will go out. You have thus completed the take back of the computer's last move. At this point, you are permitted to enter an alternate move for the computer's side if you wish or take back your last move. To enter an alternate move for the computer, enter the desired move as you normally would and proceed with your next move. To take back your last move, simply press the TAKE BACK KEY again and proceed as outlined above. You may effectively take back as many moves as you like using this procedure.

As you take back moves, the computer will remind you to return a captured piece to the board by lighting up the LEDs of the square of the previously captured piece. Return the captured piece to the board and press down on the indicated square. If you do not recall the identity of the captured piece, press down on the indicated square and use the VERIFY KEY to find out what type of piece belongs on that square.

At any point during a game you may take back the entire game played thus far (when it is your turn to move) by pressing OPTIONS and then TAKE BACK. The computer will retain memory of the moves taken back (unless NEW GAME is activated) and you can see the moves replayed by using HINT (see HINT KEY).

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.

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.

If you have taken moves back and would like to see them replayed, pressing the HINT KEY will cause the computer to play forward moves taken back in the proper order. After you have taken back a portion or all of a game played, press HINT and LEDs for the FROM square of the last move taken back will light. Press

down on the indicated square, and the LEDs for the TO square of that move will light. Enter the move as you normally would and the computer will light the LEDs for the FROM square of the next move, and so on. As you replay moves taken back, the computer will continue to display the next move made until you have reached the last move played in the game. At that point, the computer will emit a series of beeps to signal that you have entered the last move played thus far. (This feature referred to throughout manual as PLAY FORWARD.)

If you decide to stop playing moves forward at some point before the last move played, stop entering moves at the desired position and press CLEAR to continue a regular game from that position.

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.

CLEAR KEY

The CLEAR KEY has several uses:

1. Pressing the CLEAR KEY will clear an illegal move.
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 off so that you can enter another move.
3. You MUST press the CLEAR KEY in order to EXIT: Option Select Mode, Problem Mode, or the Playing Forward (HINT) Mode.

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 game. These 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 Option Select Mode is chosen by pressing the OPTIONS KEY, normal game play is suspended and A1 through H1 are used to select options as illustrated.

EASY MODE ○	SOUND OFF ○	MONITOR MODE ○	BLACK FROM THE BOTTOM ○	CHANGE COLOR WITH MOVE ○	ROTATING DISPLAY (6093 ONLY) ○	CLEAR BOARD ○	MATE FINDER MODE ○
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Press the OPTIONS KEY to enter Option Select Mode. Whenever you are in this mode, LEDs 1, 2, 3, and 4 will light steadily to indicate this. 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. The only exception is that Option H1 (Full Reset) must always be selected by itself (see Section 3,8). After selecting your option(s), always press the CLEAR KEY to exit Option Select Mode.



The options which are available are found on squares A1-H1. 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 OPTION 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 it is 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 Option Select Mode, simply press the OPTIONS KEY again to get back into that mode. Note that the LEDs for Options A1, B1, C1, D1, F1, 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 and G1, because they represent either a one-time selection (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.

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. This feature is part of what makes the 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!

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 Option 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 Option Select Mode.

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 opening 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. TAKE BACK and PLAY FORWARD capability may also be used in conjunction with Monitor Mode.

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.

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 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.

SQUARE E1 - CHANGE COLOR WITH MOVE

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

SQUARE F1 - ROTATING DISPLAY (AVAILABLE MODEL 6093 ONLY)

Available only with Model 6093, Excel Display. See Model 6093 addendum in this manual for details regarding this feature.

SQUARE G1 - CLEAR BOARD

Pressing OPTIONS, Square G1 and CLEAR will remove all the chess pieces from the board in the computer's internal memory. This feature is especially valuable for setting up problems that involve few pieces.

NOTE: After pressing CLEAR, the F (Stalemate) and G (Draw) LEDs will flash because the board is void of all pieces including the Kings. Simply press CLEAR again, and then OPTIONS, VERIFY to enter Problem Mode. You may now place the Kings in their appropriate positions along with the other pieces of your choice.

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.
2. Verify that the pieces are correctly located.
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 four, 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 - see Alternate Solutions, Section IV. If you are satisfied with the solution found and want to see the computer's next move of the mating sequence, make the move the computer has displayed, press the LEVEL KEY. The appropriate LED will light to indicate the number of moves to mate you originally selected. Press the LEVEL KEY again and (using this option only) the next LED below the original number of moves requested will light. This tells the computer to show the next move of the mating sequence. 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.

SECTION IV—MATE AND DRAW ANNOUNCEMENTS

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.

MATE ANNOUNCEMENT AGAINST OPPONENT

If 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.

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.

NO MATE FOUND

When Mate Finder Mode is selected 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. ● 4 ● 3

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.

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 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.

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.

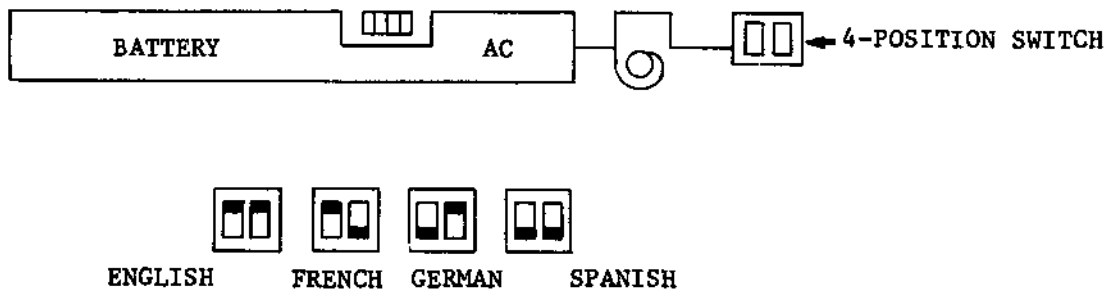
When the computer is about to make a move that will result in the same position being repeated for the third time, it will flash the DRAW LED and LEDs 2 and 3. Pressing the CLEAR KEY at this point will display Excellence's drawing move, allowing you to continue the game if you wish.

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.

SECTION V—GENERAL INFORMATION

EXCELLENCE VOICE CHESS CHALLENGER (MODEL 6092)

In addition to the fine chess program and features of the basic 6080 Excellence model, the Excellence Voice incorporates a synthesized voice feature with four selectable languages: English, French, German and Spanish. These languages may be changed by adjusting the four-position switch near the AC/Battery Switch. ALWAYS TURN OFF OR DISCONNECT POWER FROM THE COMPUTER BEFORE CHANGING LANGUAGES. USING A TOOTHPICK OR SIMILAR INSTRUMENT, YOU CAN ADJUST THE SWITCH TO ONE OF FOUR POSITIONS FOR EACH LANGUAGE AS ILLUSTRATED BELOW. THIS SWITCH IS RECESSED TO AVOID ACCIDENTAL ACTIVATION IN MIDGAME. DO NOT ACTIVATE THIS SWITCH DURING MIDGAME.



The voice feature announces all your moves and the computer's moves for ease of operation. If desired, the voice may be turned off by activating OPTIONS, Square B1, and CLEAR.


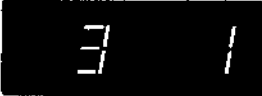

EXCEL DISPLAY CHESS CHALLENGER (MODEL 6093)

The 6093 also incorporates the program and features of the basic 6080 model, plus a display window that communicates more information to you:

As you play the 6093 at any level, it will COUNT UP the time elapsed for your side as it awaits your move. After you enter your move, it will display the amount of time it estimates it will take for the move it is currently considering and COUNT DOWN. This is particularly handy at higher levels (when the computer may take one or more minutes to reply) because you will know in advance the estimated move time and can step away from the board if you wish. If during its evaluation process the computer foresees an unexpected problem or opportunity, it may increase its allotted time for that move, and the displayed time will jump up. It will not, however, ever take less time than originally displayed when you entered your last move.

Using option F1 (enter OPTIONS, Square F1, CLEAR), allows the computer to communicate additional information to you through the display window. After activating this option, the computer will not only display move times for each player, but also the computer's current search depth and the score of the current board position (in the computer's opinion). This information will be displayed in one-second increments (and always in the same order) WHILE EITHER PLAYER IS THINKING.

In the following example, the computer is set for level 7 and option F1.
Your first move is H2-H3:

<u>Time Elapsed After You Enter Your Move</u>	<u>Display Shows</u>	<u>Explanation</u>
-0-		Computer has reset clock to begin calculating time for its move.
1 second		Computer is showing a search depth of 3 ply and the number of computer moves in that ply examined thus far.
2 seconds		Computer currently believes that it is at a disadvantage valued at 1/100 of a pawn (absence of the decimal point in the score displayed indicates the same value advantage in the computer's favor).

The display will continue to flash the above information (actual values will change as it continues thinking) in sequence until the computer replies and displays the move it has selected.

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