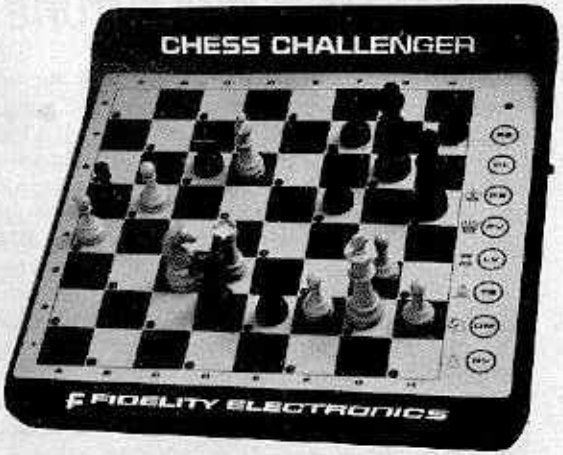
SENSORY CHESS CHALLENGER® "9"



OWNER'S MANUAL
INSTRUCTION BOOKLET

MODEL SC9
SENSORY CHESS CHALLENGER® "9"

QUALITY MADE IN U.S.A.

WELCOME TO THE FUTURE...

As the world's leading manufacturer of microprocessor-based board games, Fidelity Electronics is proud to bring you the Sensory Chess Challenger "9." The Sensory "9" contains the most advanced state-of-the-art programming and engineering to create an amazing computerized opponent that can play chess at the level of the club or tournament player, yet allows you to select and control the level of difficulty to match your own ability and experience.

Your Sensory Chess Challenger "9" is definitely not a contrived chess board that has been gimmicked with lights and push-buttons—as you will quickly learn, Sensory "9" is, in every aspect of the game of chess, a very versatile and talented opponent that will delight and challenge you on every move.

In addition to its outstanding chess playing ability, Sensory "9" provides numerous special functions and options that enhance playability and increase its educational value. It is highly recommended that you read SECTION I—BASIC OPERATION before starting to play. Later you may wish to read SECTION II and SECTION III, describing all the special features the machine has to offer.

CHESS CHALLENGER is a registered trademark of Fidelity Electronics, Ltd., Miami, Florida.

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SECTION I—BASIC OPERATION

KEYS AND INDICATOR

PIECE KEYS—Used to verify the location of a piece type. Also used in Problem Mode to add or remove pieces on the board.













RESET—Resets Challenger to start a new game.

CLEAR—Used to clear an unwanted FROM square. Also used in Problem Mode to clear a piece from the board.

PROBLEM MODE—Permits the Player to set up special move situations.

POSITION VERIFICATION—Verifies position of all pieces.

LEVEL SELECT—Changes levels of play.

TAKE-BACK—Takes back a move and other features as described in manual.

DISPLAY MOVE—Used to display a recommended move and other features as described in the manual.

REVERSE—Used to change sides with Challenger and other features as described in the manual.

INTRODUCTION

The sensory playing surface, light emitting diodes (LED's), and beep tone are used as a means of communication between the human player and Chess Challenger. These instructions describe how to operate and communicate with Challenger, and do not relate to the actual playing strategies of the game of chess. For the beginner, a handy booklet entitled "Let's Play Chess" is provided with the game.

The Sensory Chess Challenger "9" contains many exciting features in its control functions and various playing mode options. You can look into these in SECTION II—SPECIAL FEATURES and SECTION III—START-OF-GAME OPTIONS. This section provides all the information you will need to play a game of chess.

POWER ON

You may operate the game in the Battery Mode (place the Power switch in the Battery position), or in the AC mode, which uses ordinary house current. For AC operation, plug the Transformer into an AC wall outlet and plug the Transformer line cord into the game (see Fig. 1). Place the Power switch into the AC position. To turn game off, remove the Transformer from the wall outlet and leave the Power switch in the AC position.

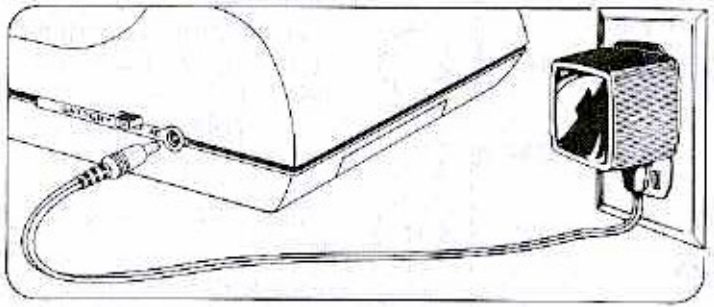


FIGURE 1—Power Supplies.

A new game is started when power is first turned on or when RESET is pressed. Turning the game off and then on again, or pressing RESET, automatically resets the program to pre-game conditions and removes all previously selected options.

When RESET is pressed, or when the power is first turned on to start a new game, Challenger always indicates a recommended first move for White by lighting the FROM and TO indicators (usually squares D2 and D4). You may make this suggested first move, or ignore it and simply make any move of your choice. The D2 and D4 indicators will go out and normal play will continue.

For lengthy games, power may be left on, as Challenger is all solid state and is designed to be left on for long periods of time, as desired.

THE GAME BOARD

Set up the chess pieces with the Black pieces at the top 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; the Black King is on square E8.

THE PLAY

Playing chess against Sensory Challenger "9" is like playing with a human opponent—you make your move and Challenger 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. (see Fig. 2). Press first on the FROM square, then on the TO square.

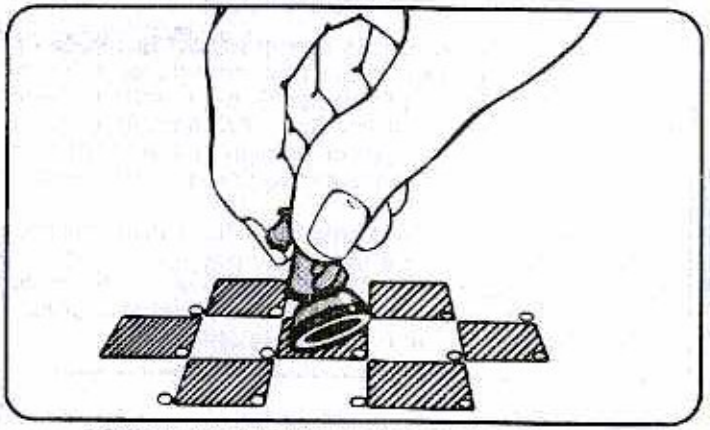


FIGURE 2—To make a move, press gently on the square.

For example: If you want to move the White Pawn from D2 to D4, first tilt the pawn and press on square D2 (the LED in square D2 will light); then press on D4 (the LED in square D2 will go out and the LED in square D4 will light for an instant). In that instant, Challenger will recognize your move. After Challenger considers its move, it will light an LED in the square of one of its own pieces and flash the square where it wants that piece to move. Make the move for Challenger by tilting its piece and pressing down on the lighted FROM square (that LED will go out and the LED in the TO square will come on); then press on the TO square. When that LED goes out, the computer's move is complete. It is now your turn again.

ACCIDENTAL WRONG MOVE

If you press down on a piece and the FROM square is lit, but you decide not to make that move, simply press the CL pusbutton.

If you change your mind after you have entered the whole move (FROM square and TO square), then Challenger has accepted your move and is already considering its countermove. You will have to use the TAKE-BACK feature to correct your mistake. Wait until Challenger announces its move. Make Challenger's move in the usual way. Now press the TB pushbutton. Back up Challenger's move by pressing the lighted squares. Challenger will guide you through the take-back in the same way it guides you in making moves, by first lighting the square the piece is on and then lighting the square the piece should go back to. When you have deleted Challenger's move press the TB pushbutton again. Back up your move in the same way. You can now enter any move of your choice.

ILLEGAL MOVE

Challenger notifies you of an illegal move by beeping and flashing the TO square. To undo that move, simply press the piece down first on the flashing TO square—that indicator will go out and the original FROM square will begin to flash—then press down on the flashing FROM square. The FROM indicator will go out, signifying that the piece is back on its proper original square.

If you are sure of where the piece came from, you can remove an illegal move by simply pressing the CLEAR pushbutton. In this case, it is up to you to get the piece back where it belongs.

EN PASSANT

Challenger will capture a Pawn En Passant whenever it deems such a move is desirable, and will also recognize when you choose to do so. When performing an En Passant capture, Challenger will first indicate the Pawn move in the usual way, by lighting the FROM square and then the TO square; then it will light the square of the captured Pawn to remind you to remove it. Simply press down on the captured Pawn and remove it from the board.

CASTLING

Challenger will castle by internally 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 then 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 pressing down on the King's FROM square and then its TO square. At this point, Challenger will recognize that you wish to castle, and will light the Rook's FROM square to prompt you to move it in the same way.

Remember that castling is a King move. If you attempt to castle by moving your Rook first, Challenger will acknowledge the Rook's move and then imediately begin "thinking." To recover from such a mistake, see the paragraph ACCIDENTAL WRONG MOVE.

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, Challenger will flash the square it stands on until you identify your selection by pressing the key next to the picture of the piece you wish to promote to.

When Challenger's Pawn reaches the eighth rank, it will automatically be promoted without further notice. If you suspect that the promotion was not to a Queen, use POSITION VERIFICATION (see SECTION II—SPECIAL FEATURES) to identify the promoted piece.

CHECK AND MATE

When Challenger has you in a CHECK situation, the LED indicator in the upper right corner of the game board will flash continuously, and Challenger will beep repeatedly until you enter its move.

When Challenger determines that you are soon to be mated, the board lights up as described in SECTION IV—MATE AND DRAW ANNOUNCEMENT. If the entire board is lit, then you are in CHECKMATE. If less than the whole board is lit, and you desire to play on to the inevitable mate, press the CLEAR pushbutton to extinguish the indicators. Challenger will then announce its move in the usual way.

When Challenger loses a game, the entire array of LED's on the board will flash continuously.

If you see the board LED's lit in the shape of a triangle, the game is drawn or Challenger is offering you a draw. For specifics, refer to SECTION IV—MATE AND DRAW ANNOUNCEMENT

BOOK OPENINGS

You may notice that at the beginning of the game Challenger seems to move very quickly. The reason Challenger responds so fast is that it contains a library of nearly 3,000 opening positions from grand master play. If the current board set-up is in Challenger'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. You can see what Challenger has in its library and actually select the opening line of play for yourself. To do so, refer to the paragraphs on the DM and RV Keys in SECTION II—SPECIAL FEATURES.

PLAYING WITH THE BLACK PIECES

After RESET or Power On, Challenger assumes that you wish to play with the White pieces. White always makes the first move, and this gives White a slight initial advantage. Normally, the board is set up with the White pieces at the bottom. If you would rather play with the Black pieces at the bottom of the board, you may do so. Just set the board up with the Black pieces at the bottom of the board and press square D1 to let Challenger know that you have chosen to play with this set-up.

You must press square D1 before the first move of the game is made. Square D1 can be used in combination with any other pre-game options. (See SECTION III—START-OF-GAME OPTIONS.)

(RV) REVERSE

The Reverse pushbutton has several diferent uses, depending on when you press it. Pressing the RV Key when it is your turn to move, changes sides with Challenger. Challenger will take over your pieces and make a move. For example: Suppose you are White and it is your turn to move. If you press RV, Challenger will make the move for White. You may now continue to play Black until RV is pressed again. By alternately pressing RV after each move by Challenger, you can watch Challenger play itself.

Pressing the RV Key while Challenger is thinking will force Challenger to make its move immediately.

The RV Key can be used to select a particular opening line from Challenger's open library. To do this, wait for Challenger to announce its move. Now, instead of entering that move in the ususal way, press the RV Key. Challenger will display another move choice (if another choice is available). By continuing to press RV, you can see all of the choices available to Challenger (see the paragraph on Book Openings IN SECTION I—BASIC FEATURES).

Other uses for the RV Key are described in SECTION III—START-OF-GAME OPTIONS.

(DM) DISPLAY MOVE

Like the RV Key, the Display Move key has different uses, depending on when you press it. If you press the DM Key when it is your turn to move, Challenger will recommend a move for you to play. If you are playing from Challenger's Opening Book (see the paragraph on Book Openings in SECTION I—BASIC OPERATION), the suggested move will be from Challenger's book. If you press the DM Key again, Challenger will show you another book choice (if another choice is available). You can continue pressing DM to see all of the book choices that Challenger recommends in the current position.

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

When it is Challenger's turn to play, pressing DM will display the move Challenger is currently thinking of making. The move will be shown on the board LED's. Both the FROM and TO squares of the move will flash. Once you have pressed DM while Challenger is thinking, it will continue to show you the move it is considering. If Challenger changes its mind about the best move, a new move will begin to flash on the board. When Challenger makes its move and you make your response, Challenger will automatically resume showing you what it is thinking. You need never press DM again to continue to look into Challenger's mind. To cancel this feature, press the CL Key while Challenger is thinking.

(TB) TAKE BACK

The Take-Back feature allows taking back a move made by Challenger or a move made by the player. If the game is still in the Opening Book (see SECTION I—BASIC OPERATION), taking back one or more 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 and you can even take back all the moves to the beginning of the game. Once play is out of book, you can take back up to 22 ply (a ply is a move by either you or Challenger).

The Take-Back feature can be used whenever it is your turn to play. To use the Take-Back feature, press the TB Key, Challenger will light the last piece moved. Press down on that piece. The light in that square will go out and Challenger will light the square to which that piece should be returned. Move the piece back and press that square. The lights will go out. You have completed the take-back of that move.

You may now press TB again to continue taking back moves, moving each piece back in turn, or you can go on from this point to continue play.

If you have just taken back one of Challenger's moves, you may now get Challenger to move again by pressing the RV Key, or if you wish, you may choose a move for Challenger. Challenger will accept your choice without complaint and let you go on from there making your own next move. Making Challenger's move after a take-back will not result in changing sides with Challenger. If you were playing White, you will still have the White Pieces.

NOTE: When taking back moves, if you are unsure of where to replace captured pieces that should be put back on the board, you may use Position Verification to identify the proper piece (see the paragraph on Position Verification in this section). This may be done by pressing PV after a move take-back has been executed. Then press each piece type key until the missing piece has been identified. Press CL after the piece is replaced, and continue with TB or continue normal play.

(LV) PLAYING LEVEL

The Sensory "9" has nine levels of playing difficulty. When first turned on, or when RESET is pressed, Level One (the least difficult is automatically selected.

To change levels, press the LV Key. Square H1 lights, indicating Level One. Each time LV is pressed, the next higher level is selected, indicated by H2, H3, etc. Level Nine is indicated by all H squares lit.

To exit the LV mode, press the CL Key after desired level indicator is lit, or simply make your next move. You may change levels at any time during a game.

NOTE: for an easier game at all skill levels, see the paragraph on Easy Mode in SECTION III—START-OF-GAME OPTIONS.

CHESS LEVEL	AVERAGE RESPONSE TIME	ACTUAL TIME CONTROL
1	5 seconds	60 moves/5 minutes
2	15 seconds	60 moves/15 minutes
3	30 seconds	60 moves/30 minutes
4	1 minute	60 moves/1 hour
5	2 minutes	30 moves/55 minutes
6	3 minutes	40 moves/1 hour 50 min.
7	3 min. 45 sec.	40 moves/2 hours 30 min.
8	6 minutes	30 moves/3 hours
9	Infinite	No Limit

A built-in internal clock enables Challenger to stick to the stated actual time controls for each level. The time taken for each individual move may vary, however, from instantaneous response to moves taking up to 2½ times the average time remaining per move.

(PV) POSITION VERIFICATION

You may 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 PV Key, and then press the key next to the picture of the piece you wish to verify. All squares with pieces of that type will light; squares with White pieces will be lit continuously, and squares with Black pieces will flash.

You may continue verifying piece locations by pressing other piece type keys. To terminate Position Verification, press the CL Key or simply enter your next move.

(PB) PROBLEM MODE

Problem Mode permits you, the player, to alter the board set-up at any time before or during a game. By using Problem Mode before starting, a game, it is possible to set up various chess problems and mate puzzles, as desired. Additionally by using Problem Mode during game play, it is possible to alter the direction of the game, strengthen your side or Challenger's side, resurrect lost pieces, or even move your King out of an imminent checkmate situation. You may enter Problem Mode whenever it is your turn to play.

To learn how to use Problem Mode, try the following practice drill:

1. Press RESET and set pieces on the board in their initial positions.
2. Press the PB Key. You are now in Problem Mode. Note that the White King's indicator light on square E1 is lit continuously, and the Black King's indicator light on square E8 is flashing. This means that Challenger recognizes that the White King is on square E1 and the Black King is on square E8.
3. Press down on square E1. Note that the square E1 indicator light is now flashing—Challenger thinks that a Black King is on that square. Press E1 again—the indicator goes out and the computer thinks there is no piece on square E1. Press E1 once more and Challenger is back to thinking that a White King stands on that square.

Therefore, by the above illustrations, it is seen that;

1. No indicator lit means no piece of that type on that square.
2. Steadily lit indicator means White piece of that type on that square.
3. Flashing indicator means Black piece of that type on that square.

To set up the pieces in any arrangement you desire, you need only:

1. Press PB.
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, press the CL Key. Note: To clear all of the pieces from the board at once, see the paragraph on Clear Board in SECTION III—START-OF-GAME OPTIONS.

(CL) CLEAR

The CL Key (CLEAR function) is used to clear an illegal move; to change your mind about your move when you have entered only the FROM square; to terminate Position Verification and Problem modes (see paragraphs on those features in this section); and to turn out all LED indicators.

(RE) RESET

Resets Challenger to start a new game. Clears all previous level and option selections.

SECTION III—START-OF-GAME OPTIONS

In addition to the Control Keys and Special Features described previously, a number of additional options may be selected at the start of a game. These options are available only immediately after RESET is pressed and before any function key is used or a move is made.

The Start-of-Game Options are selected by pressing one or more squares on Rank 5 of the chessboard, (see Fig. 3). When an option has been selected, that square will light. The Start-of-Game Options can be selected in any order, and any combination of options can be used.

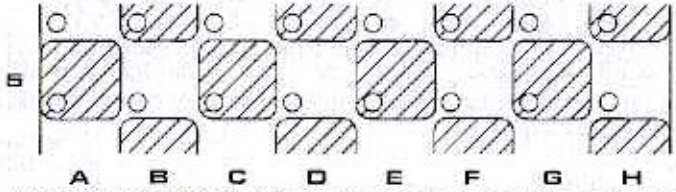


FIGURE 3—To select an option press one or more square on Rank 5.

A5 BEEP OFF

Pressing board square A5 turns off all beep tones. If this option is selected, the game will operate completely without sound until the RESET Key is pressed.

B5 BEEP LESS

If board square B5 is pressed, the beep tone will only be used to announce the computer's move. All keystrokes will be silent and the game will operate silently, except that when Challenger has finished "thinking" about its move and is ready to play, one beep will sound.

C5 CLEAR BOARD

Board square C5 is used to help setting up problems. Pressing this square empties Challenger's internal chessboard. If you press square C5 and then use PV (Position Verify), you will see that there are no pieces on the board.

D5 RESIGN SELECT

If board square D5 is pressed, Challenger will announce forced mates against itself, and will resign if it can see mate coming. For details on how Challenger announces mates, see the paragraph on Mate Announcement in SECTION IV—MATE AND DRAW ANNOUNCEMENT.

E5 EASY MODE

For beginners, children, or just for a casual game after a hard day's work, pressing square E5 will weaken all skill levels without changing the time control.

Part of what makes Challenger such a tough opponent is that it continues "thinking" when it is your turn to move. You may have set Challenger on Level 1 to give it roughly 5 seconds per move, but if you took 2 minutes to consider your move and Challenger guessed what your were going to play, Challenger would have used all 2 minutes to "think" about its reply. You might as well have set it on Level 5! When you select Easy Mode, Challenger will not "think" on your time.

F5 BOOK PRACTICE MODE

Pressing square F5 puts you in Book Practice Mode. This mode lets you use Challenger for drill on opening lines. Book Practice

Mode allows Challenger to play a much wider range of move choices, including weak opening moves. In normal play, Challenger will not play a weak move, but will know the correct countermove if you should do so. In Book Practice Mode, however, Challenger may play a weak opening move so that you may learn the correct response.

In Book Practice Mode, Challenger will give you a warning if you attempt to play a move not in book or if you reach the end of a book. If you enter a move not in book, Challenger will beep three times and give you an illegal move indication. You can then take the move back and try again to play one in book. When you reach the end of book, Challenger will warn you by beeping twice and giving you an illegal move indication.

If you play a move that is not in book and Challenger asks you to take it back, you may, if you wish, force Challenger to accept it and go on playing from that position. To do so, simply press the RV Key after entering your move. Challenger will fall out of book and begin "thinking" about its response. If you force Challenger to accept a non-book move, you cannot get back into book by using the Take-Back feature.

G5 PLAYER MODE

Pressing board square G5 selects Player Mode. In Player Mode, humans play both sides of the game. Challenger acts as a referee and checks each move for legality.

Pressing RV cancels Mode and instructs Challenger to make the next move.

If the moves played are in Challenger's Opening Book, Challenger will follow along in book, and the DM Key will give suggested book moves. If the RV Key is used to cancel Player Mode while Challenger is still in its Opening Book, then Challenger will make its next move from book.

Player Mode can be used in combination with Book Practice Mode to provide an excellent way to learn opening lines. When both are used with the Take-Back feature, multiple variations can be studied.

SECTION IV—MATE AND DRAW ANNOUNCEMENT

Challenger can indicate forced mates against the opponent, and (if Resign Select was pressed at the start of the game) against itself. Up to Mate-in-Seven can be indicated. In addition, Challenger can recognize and claim four different types of draws, can recognize and respond to an opponent's offer of a draw, and will itself propose a draw, if in Challenger's estimation, neither side possesses sufficient resources to force mate.

MATE ANNOUNCEMENT—AGAINST OPPONENT

When Challenger discovers a forced mate agianst its opponent, it lights the board squares to show that mate is coming. The number of ranks left dark indicates how far off the mate is. Thus if Challenger sees a "mate-in-three," all of the board squares would be lit except for the sixth, seventh, and eighth ranks, (see Fig. 4). When mate has been announced, the player can either resign, press RE, or go on playing by pressing CL. After CL is pressed, Challenger indicates its move in the usual way. If the move Challenger indicated is the actual mating move, once the move is entered on the board, the whole board is lit.

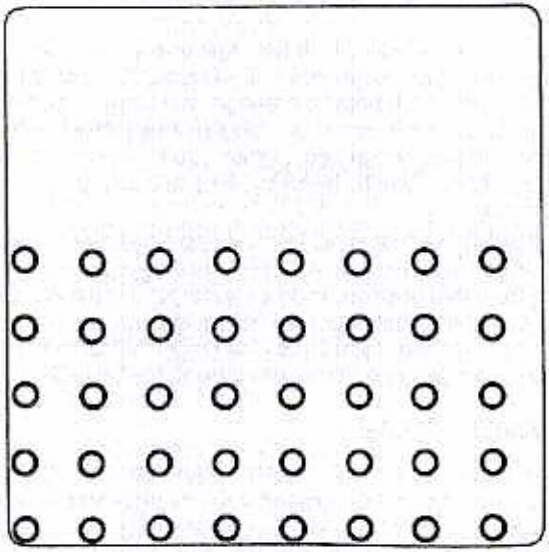


FIGURE 4—Mate Announcement against opponent.

MATE ANNOUNCEMENT—AGAINST CHALLENGER

When Challenger sees a forced mate against itself, it may or may not announce it ahead of time. If Resign Select was chosen as a Start-of-Game Option, Challenger will announce the mate and offer its resignation. Challenger does this by flashing the board squares in a manner similar to mate announcements. The number of ranks left dark indicates how far off the mate is.

To accept Challenger's resignation, press RE. To play on, press CL. Challenger will then indicate its move in the usual way. If your last move delivered mate, Challenger will flash the whole board.

DRAW ANNOUNCEMENT

Challenger can recognize and claim draws in four different categories. It can also offer a draw and respond to the offer of a draw. The basic feature of draw announcement is the illumination of a triangle of lights on the sensory playing surface. Besides the triangle, each type of draw or draw offer has its own defining characteristics as follows:

DRAW BY THE 50-MOVE RULE

If 50 moves are played in the game without either side having pushed a Pawn or captured a piece, the game is drawn by the 50-move rule. If Challenger detects that this has happened, it will claim a draw by lighting the big triangle solidly and also lighting a little triangle using squares A7, A8, and B8. (see Figure 5)

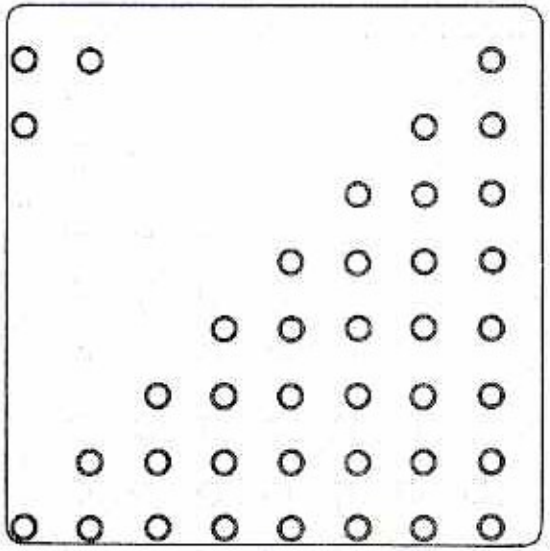


FIGURE 5—Draw by 50-move rule.

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. Challenger claims a draw by stalemate by lighting the triangle solidly. No other lights are lit. (see Figure 6)

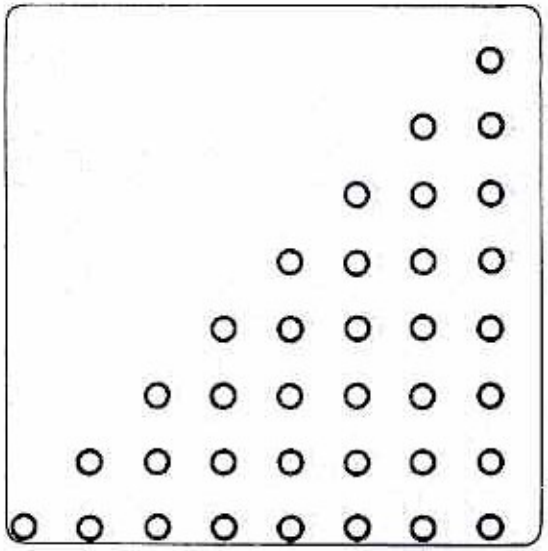


FIGURE 6—Stalemate.

OPPONENT'S MOVE HAS REPEATED THREE TIMES

When the same position occurs three times in a game of chess where the same side has the move each time, then the game is drawn by repetition of position. When Challenger recognizes that its opponent has made a move that results in a third repetition, it claims the draw by lighting the triangle solidly and also lighting square A8. (see Figure 7)

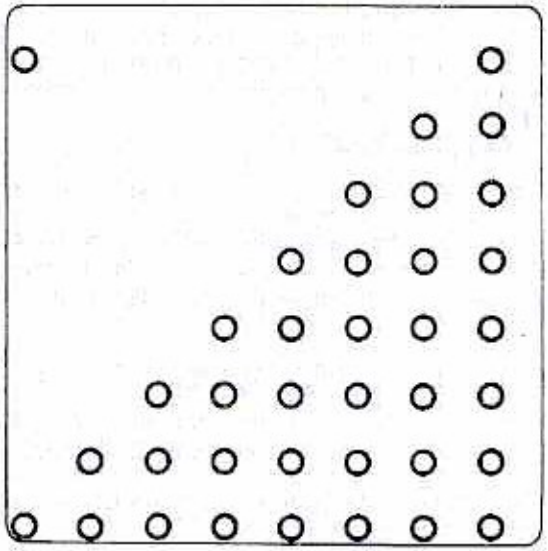


FIGURE 7—Opponent's move has repeated three times.

CHALLENGER'S MOVE WILL REPEAT THREE TIMES

When Challenger is about to make a move that will result in the same position being repeated for the third time, it first flashes the triangle and also flashes square A8. When the CL Key is pressed, Challenger will display the drawing move.

CHALLENGER OFFERS A DRAW

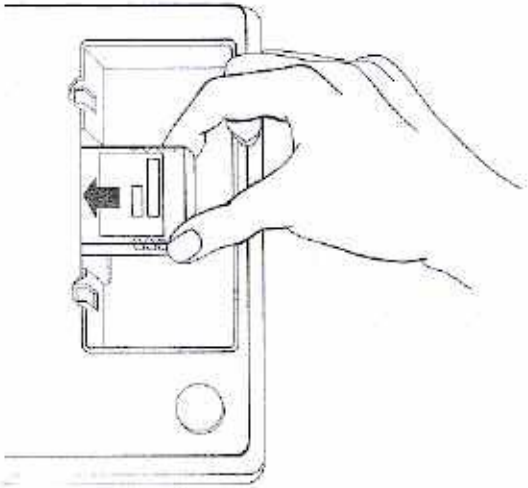
Challenger will offer a draw whenever, in its estimation, neither side posesses sufficient material to bring about a mate. Challenger makes its draw offer by flashing the triangle. No other lights are lit. To accept Challenger's draw offer, press RE; to decline, press CL.

OFFERING CHALLENGER A DRAW

You may offer Challenger a draw at any time that it is your turn to move. To make the draw offer, press down on your King and then press down on Challenger's King. Challenger will flash the triangle to ask if you intended to offer a draw. If not, press CL. If yes, press RV. Challenger will answer with the upper triangle on for "no" and the lower triangle on for "yes." In either case, you can resume play be pressing CL.

USING MODULES

One of the most exciting aspects of your new Sensory "9" is its ability to accept modules that add to its basic capability. Each mocule will contain a separate instruction manual describing the added features. The diagram below illustrates how the module is installed.



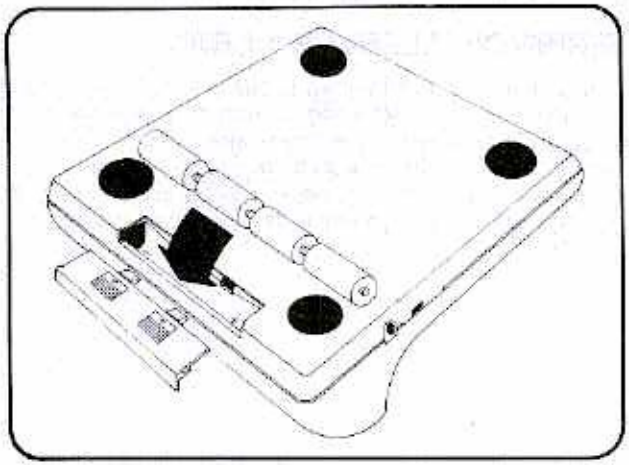
BATTERIES

Expected useful life of the batteries is approximately six hours. Weakened or damaged batteries can cause inaccurate operation or malfunction. Use four "C" size alkaline batteries only.

BATTERY REPLACEMENT

To install or replace batteries:

1. Be sure transformer is unplugged from the unit.
2. Gently push down to disengage battery cover snap-locks on bottom of Sensory Chess Challenger "9".
3. Slide the battery cover clear of the guide notches in the case.
4. Remove and discard old batteries.
5. Ensure that battery clips are clean and rust-free.
6. Install four (4) batteries so that their positive (+) terminals all point toward the side of the game with the Battery/AC switch.
7. Replace battery cover.



TRANSFORMER

The transformer provided with this unit has been specifically designed for use with this product. We strongly recommend against the use of any power source other than the transformer provided by the manufacturer.

SPECIFICATIONS

POWER: Operates on 110, 220, or 240 volt AC house power (depending upon transformer used), 50-60 Hz, 2 watts, continuous use. Batteries: 4 "C" size, Alkaline.

INPUT: 50 pressure-sensitive switches (50 playing squares, 9 function keys).

SIZE: 10⅝" x 11¼" x 2⅜"

WEIGHT: Housing, Transformer, Chess Pieces, and Shipping Material: 4 lbs., 12 ozs.