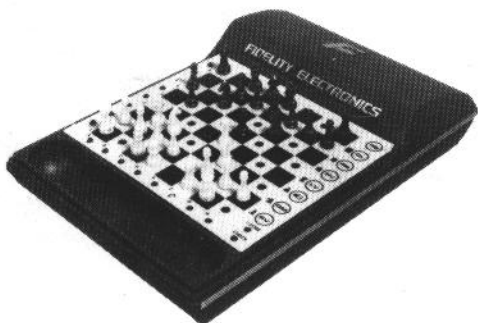# MINI SENSORY CHESS CHALLENGER®

OWNER'S MANUAL
INSTRUCTION BOOKLET
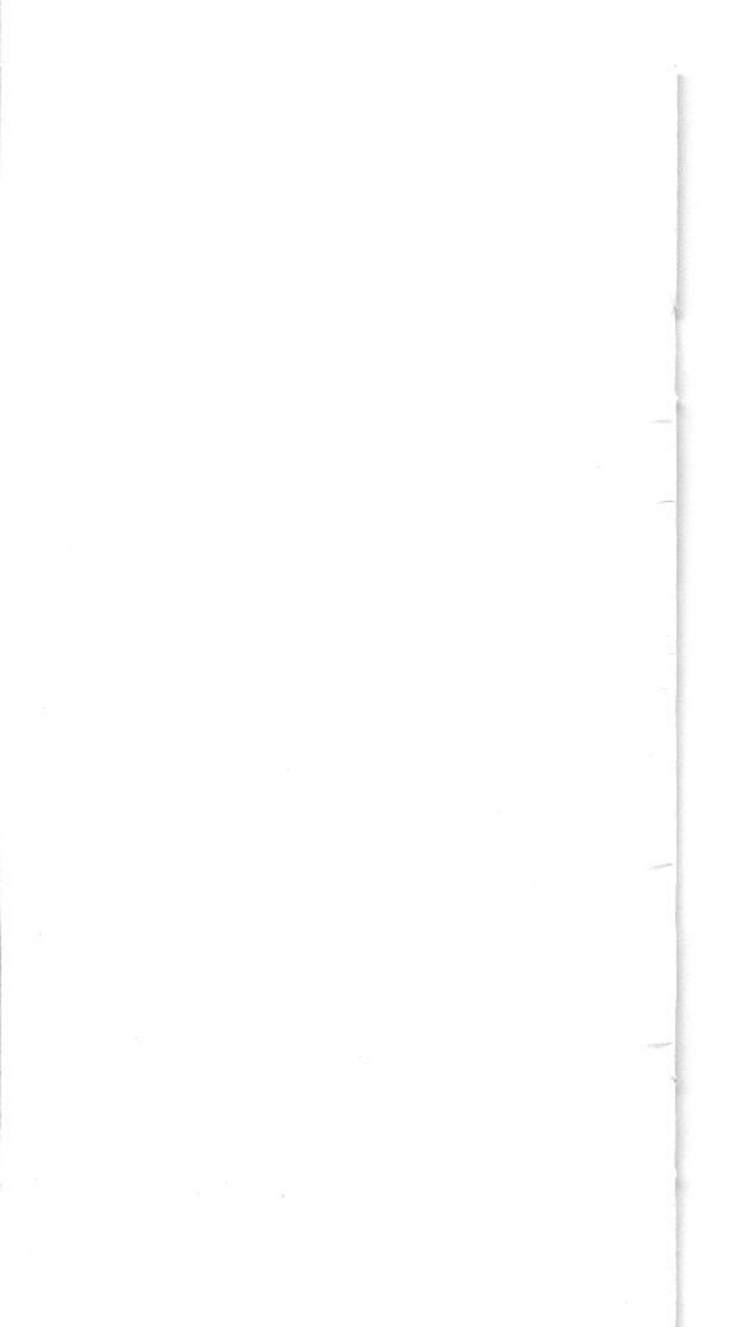### MODEL MSC

FIDELITY ELECTRONICS, LTD.
8800 N.W. 36th STREET, MIAMI, FLORIDA 33178

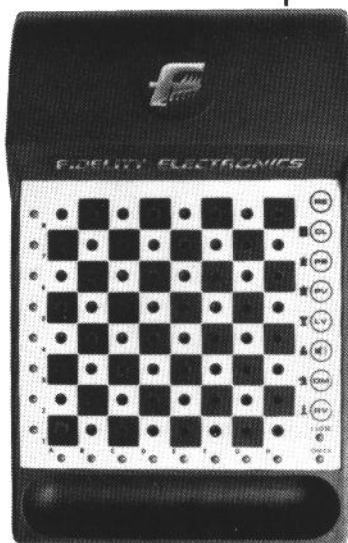# MINI SENSORY
CHESS CHALLENGER®

LEVEL
POSITION VERIFICATION
PROBLEM MODE
ON-OFF SWITCH
CLEAR
RESET
POWER PLUG

CHECK
I LOSE
REVERSE
DISPLAY MOVE
SPEAKER

MINI SENSORY CHESS CHALLENGER PLAYING INSTRUCTIONS

SECTION ONE — OPERATION

INTRODUCTION

Your MINI SENSORY CHESS CHALLENGER is designed and programmed to help you learn how to play chess if you're a beginner, and to provide an interesting opponent if you're already a chess player. For the beginning player, a booklet entitled "Let's Play Chess" is provided, which describes how the pieces are set up, how they are moved, and the basics of the game of chess.

Playing a game against your MINI SENSORY opponent is as easy as moving the pieces, once you have mastered the basics of chess. Just turn on the power and make your first move. It is recommended that you do not use the special features described in Section Two until you are comfortable moving the pieces about in an actual game and are familiar with the playing procedures.

SET-UP

Before turning power on, set up the pieces with white at the bottom. Turn the ON/OFF switch to the ON position. If the optional transformer is used, turn the switch to the ON position after the transformer is plugged in.
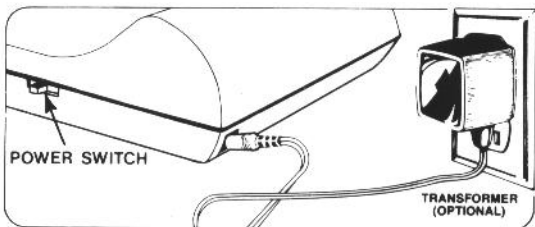

POWER SWITCH

TRANSFORMER
(OPTIONAL)

Figure 1

When power is first turned on, the LED light next to the number 1, near square A1, will go on. This shows that the game will be played at Level Number One.

A new game begins each time power is turned on or when the RE (Reset) Key is pressed.

LEVEL SELECT

Select your playing level first, before each game. Playing Level One is automatically selected for each new game. When Playing Level One is lit, you may change to Playing Level Two by pressing the LV Key. The light next to square A2 will go on. For Level Three, press the LV Key again, and the light next to A3 will go on. If you continue to press LV, Level Four will be selected, and then Level One again, etc. NOTE: Level Four is used for special problems like Mate in Two, etc. (see LEVEL FOUR).

Average response times for each playing level are shown below. These are the approximate times the computer will use to decide on its next move.

| PLAYING LEVEL	AVERAGE RESPONSE TIME
Level One	5- 22 seconds
Level Two	10- 35 seconds
Level Three	30-100 seconds
Level Four	Infinite

PLAY

For each new game, the computer always assumes that you will play white. Since white always goes first, you will make the first move.

A piece is always moved FROM one square TO another square. The diagrams below show how the computer identifies a square by using two LED lights—one for the rank and one for the file.
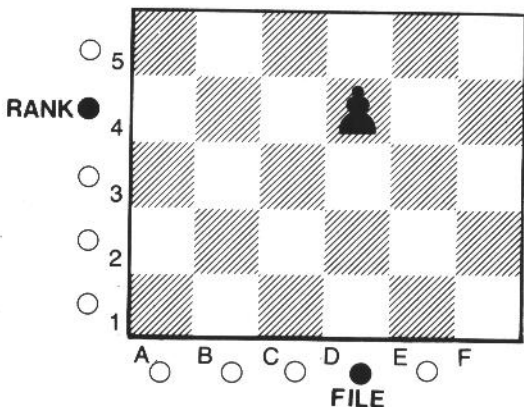
Example 1.
The file "C" light is lit and rank "2"
light is lit. The square selected is C2.
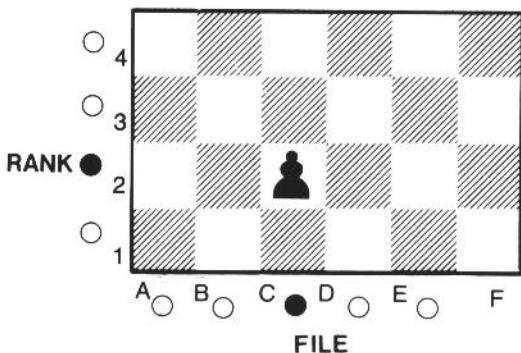
Example 2.
The file "D" light is lit and rank "4"
light is lit. The square selected is D4.

To move a piece, first press down on that piece. Two lights will go on to show your FROM square. Lift the piece out of its cavity and move it to your TO square. Be sure the peg is in the cavity and press down on the piece. The FROM lights will go out, and the

computer will start "thinking" about its response move. While the computer is "thinking," the I LOSE and CHECK lights will alternately flash back and forth. The computer shows you its move by lighting two lights for its FROM square. Press down on the computer's chosen piece, and the FROM lights will go out. Two different lights will then show you its TO square. Move the computer's piece and press down on the TO square. The TO lights will go out, and it is now your turn again.

For each move, remember the three steps: press, move, and press again.

NOTE: You may have noticed that, when moving your piece, the TO square lights DO NOT light, but when moving Challenger's piece, the TO square lights DO light. The reason is that, once you have moved your piece into your TO location, Challenger is instantly informed and there is no need for lights. On Challenger's move, the TO square is lit to show you where to place Challenger's piece.

CLEARING A WRONG MOVE

If you start to make a move and change your mind — that is, if your FROM square is lit but you have not pressed the TO square — you may clear the move by pressing the CL Key. You cannot change a move after the TO square is pressed.

ILLEGAL MOVE

If the computer finds that you have made an illegal move, it will flash the file LED light of the wrong TO square. To undo the move, first press the piece on the wrong TO square (the FROM square will now flash), move the piece back to the flashing original FROM square, and press again. All lights will go out, and you can now try another move.

CHECK/I LOSE

When the computer loses, the I LOSE light will go on.

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When the computer has you in check, the CHECK light will go on. When the computer has you checkmated, the file LED light of the move that caused the checkmate will flash.

SECTION TWO — SPECIAL FEATURES

(RE) RESET

Starts a new game. The RE Key does not work until Challenger's move is completed.

(CL) CLEAR

The CL Key is used to clear an unwanted FROM square or to exit from the Problem Mode.

(LV) LEVEL

Repeatedly pressing the LV Key changes the playing level.

(◄))) SPEAKER

This key is used only with the optional Advanced Chess plug-in module to turn the tone on or off.

(DM) DISPLAY MOVE

The DM Key may be pressed while Challenger is "thinking" in order to stop the computer and force it to make a move. Sometimes Challenger will not respond immediately because it must continue to search until it has found a legal move. Release the button, and it will respond as soon as it has found the first available legal move.

(RV) REVERSE

The RV Key is used to change sides with Challenger. For example, at the beginning of a game, you may decide to have Challenger make the first move with the white pieces. Simply press the RV Key.

During a game, you may want to have Challenger make your next move. Press RV and Challenger will show you which move to make. Press RV again, and Challenger will return to playing black again. By pressing RV after each move that Challenger makes, you can have it first play white, then black, then white again. You can actually watch Challenger play against itself through an entire game.

(PV) POSITION VERIFICATION

The PV Key is used to verify the positions of all remaining pieces on the playboard. The following shows how this works:

1. Press the PV Key when it is your turn to move.

2. Press one of the keys adjacent to a picture of the piece type you are interested in. Each time you press that key, a new row (rank) LED light is lit and a column (file) LED light is lit if the piece is in that row. If the piece is white, the LED burns steadily. If the piece is black, the LED flashes. If there is no piece in a row, only the row LED will be lit. By continuing to press the key, each row will be shown in turn, starting over with row one after row eight is shown.

3. By repeating this process for each piece type, every piece on the board can be correctly located.

4. To return to normal play, press CL or simply make your next move.

(PB) PROBLEM MODE

The 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 special problems for Challenger to work out.

The Problem Mode can be used anytime when it is your turn to make a move. To enter the Problem Mode, press the PB Key. Next, press one of the piece type keys (any key that has a picture of a

piece type adjacent to it). To remove a piece of the type selected, press that piece one or more times until the file light goes out, indicating that the square is now unoccupied. To add a piece of that type, place that piece on the desired square and press until the file light goes on with a steady light. The steady burning file light indicates a white piece. For a black piece, press until the file light flashes. A flashing file light indicates a black piece now occupies that square. For example:

During a game, suppose you decide to remove Challenger's Queen and replace a White Knight you previously lost. Proceed as follows:

1. When it is your turn, press the PB Key.

2. Press the key adjacent to the Queen symbol.

3. Press the Black Queen until the flashing file light goes out. The Black Queen is now removed from Challenger's memory. Remove the Black Queen from the board.

4. Press the key adjacent to the Knight symbol. Place a White Knight on the desired open square and press until the file light is lit with a constant light. Your White Knight is now entered into Challenger's memory.

5. Press the CL (Clear) Key to exit the Problem Mode.

6. Make your move to continue the game.

MATE−IN−TWO

For practice, you might want to try setting up the following mate-in-two problem, using the Problem Mode.

1. Press the RE Key to start a new game.

2. Press the PB Key to enter Problem Mode.

3. Press the Queen symbol Key. Remove the Black Queen.

4. Press the Rook symbol Key. Remove all but H1 Rook.

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5. Press the Bishop symbol Key. Remove all Bishops.

6. Press the Knight symbol Key. Remove all Knights.

7. Press the Pawn symbol Key. Remove all Pawns.

8. Press the CL Key to exit Problem Mode.

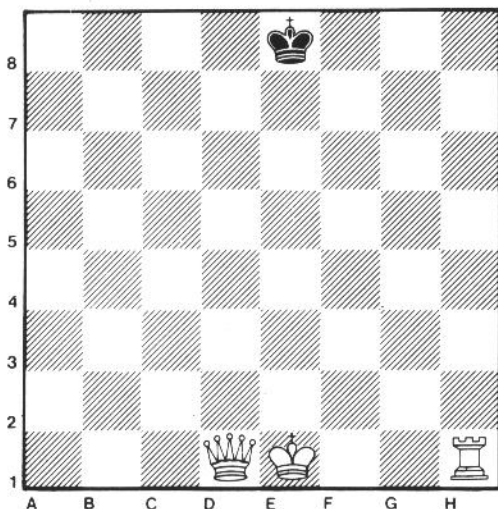The remaining board should now look like this:

Figure 2

Now select Level 4 by repeatedly pressing the LV Key until A4 row indicator lights. Press the RV Key to have Challenger play white. After a length of time, Challenger will move White Rook H1 to H7, with the file light flashing. This flashing indicates that Challenger recognizes the mate-in-two. Move the Rook by pressing the Rook on H1 and then pressing on H7. To return to normal play, press the RE key.

LEVEL FOUR

Level Four is the infinite level, and is used for solving special problems such as Mate-in-Two, etc.

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Since this level does not have a restrictive time limit, you may stop the computer's thinking process at any time by pressing the DM Key. This will cause the first available legal move to be played.

Sometimes Challenger will not respond immediately because it must continue to search until it has found a legal move. Release the button, and it will respond as soon as it has found the first available legal move.

CASTLING

Challenger will perform the castling maneuver when it deems it appropriate, and will recognize when you perform the maneuver. To perform the castle maneuver, only the King Move is used to signal the computer. Make the move as follows:
1. Press down on the King's FROM square.
2. Move the King and press it down on the TO square.
3. Move the Rook to its new TO square WITHOUT pressing down.

When you tell the Challenger that you have moved the King two squares, the Challenger then assumes you have also moved the Rook to its correct position.
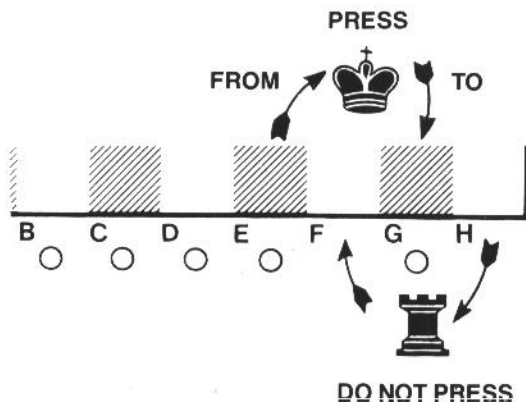
NOTE: In the unusual situation where a rook was moved and returned to its original position, the Mini Chess Challenger may accept or make a castle maneuver with the rook. In the unlikely event this happens, use the Problem Mode to undo the castle maneuver and your move. Then simply make your move again and proceed with the game.

BATTERY

Use only "AA" size, alkaline batteries. To prolong battery life, turn off battery power when the game is not in use.

When the optional AC transformer is used, the game may be left on almost indefinitely, for days or weeks at a time.

press in and lift

battery cover