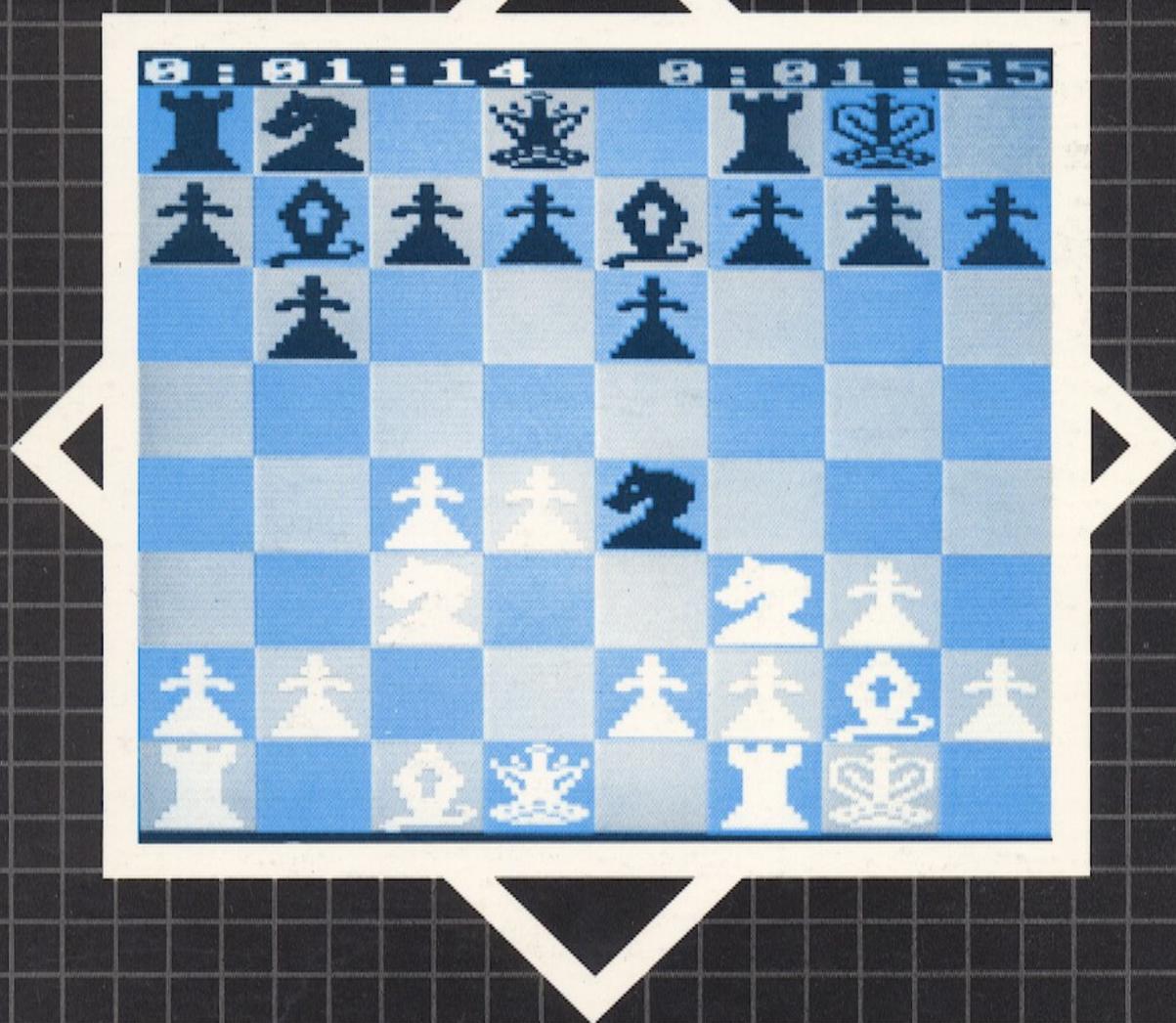# acorn electron

Chess

Loading the Main Program

To load and run the program place the cassette (fully rewound) in the cassette recorder, type

CHAIN "CHESS"

and press RETURN; the 'Searching' message should appear on the screen as you do this. Now press the PLAY button on the cassette recorder and wait for the program to load. The title page will load in less than one minute and the main program will take a further five minutes to load. When loading is complete the first ('start-up') menu of the program is displayed.
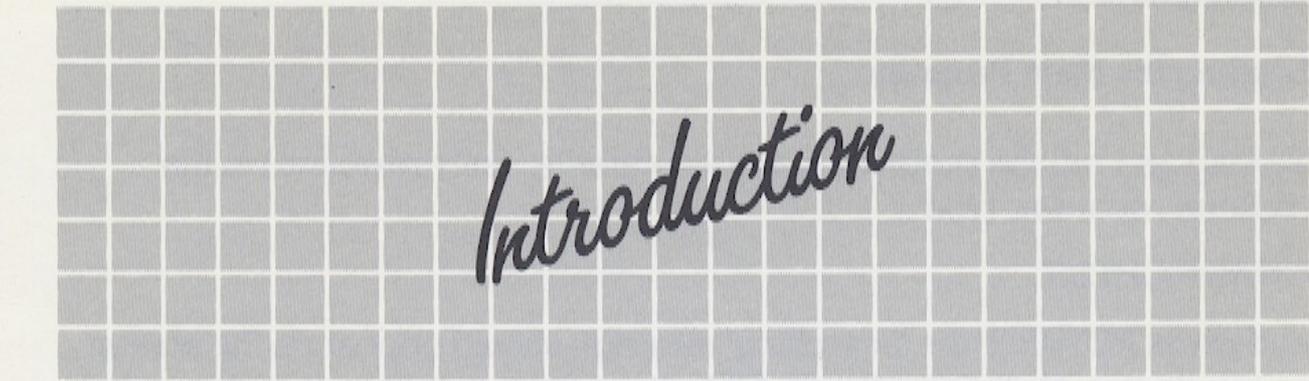
This chess-playing program helps the novice chess-player by its use of friendly interfaces, such as joysticks and cursor-keys, to get to grips with chess, while at the same time providing a game of increasing complexity on the higher levels for all further advanced players.

Notation

The game displays the last few moves in algebraic notation, the official notation now endorsed by FIDE (Federation International Des Echecs) for use in tournaments: the only modification is that whereas most tournament players use abbreviated literal algebraic (i.e. Bc4, Ngf3, ed:), the form used for display here is expanded literal algebraic (i.e. Ng1–f3, Bd3×h7+, g7–g8Q, etc.)

Using this system, there can be no ambiguity, and the letters and numbers conform to a simple co-ordinate system (displayed on two sides of the board during a game) which can be picked up quickly by a beginner, giving him a first step into the vast wealth of chess literature, most of which is now published in this, or very similar, notation.

Move Entry

The player first selects either joysticks or cursor keys. A move is then made by first moving the flashing cursor above the starting square and pressing the fire button (or the RETURN key , respectively); then, doing the same for the finishing square will specify a move.

The 'usual' style of entering moves is possible at any time: this involves typing a sequence such as 'd2d4', or 'g1f3' specifying the start and end co-ordinates of the move. Attempts to play illegal moves are met with a message to 'Try again', and no penalty is meted out to the player. If you promote a pawn, the computer will ask you which piece you wish to promote into; answer by pressing 'N' for a knight, 'B' for a bishop, 'R' for a rook, or 'Q' for a queen.

Castling requires special explanation: to castle (if castling is possible), you should first specify your king's current square, and then specify the square that he would be at if he castled on that side of the board.

So, White king-side castling is carried out by the string 'e1g1', and is printed in the lower window as '0–0': queen-side castling is printed as '0–0–0'. These conform to the accepted standard of algebraic notation.

'En passant'; although the program both plays it and allows you to play it under the correct circumstances, it is only displayed as though it were a normal pawn capture. This is in keeping with the accepted notation, which also does not treat 'en passant' as being different from other moves.

```
              Acornsoft Chess

Game-type  :  W - Player plays White
              B - Player plays Black
              P - Player vs. Player
              A - Auto

Skill Level : 0 - Easiest level
              : -
              9 - Most difficult

              J - Joysticks on/off
              C - Cursor    on/off
Key Options : T - Tick      on/off
              L - Load game
              S - Save game
              E - Editor

         Press RETURN for a new game

            (c) Acornsoft 1983

       Game-type :W          Level :2
    Joysticks :off Cursor :on  Tick :off
```

The program starts with the main menu, which provides the following options selected by single keys:

W   This gives you White against the computer.

B   This gives you Black against the computer.

P   This lets you play against another person: if joysticks are selected, then the two players are each allotted a particular joystick to use during the game.

A	Auto. The computer plays itself on the current level of difficulty.
	Skill-level (0–9)
	There are ten levels of difficulty ranging from 0 (easy) to 9 (very hard). Be warned: on levels 8 and 9 response-time may be in the order of hours!

Additional Commands:

J	Joysticks on/off. When the joystick flag (at the bottom of the screen) is on, it indicates that you may enter moves using the joystick. So that you know where the current cursor position is, the flashing cursor option is enabled with the joystick option.
C	Cursor on/off. This option allows you to disable the cursor during a game, if you do not want the flashing on the screen while you are thinking. However, it is quite useful for seeing the computer's move on the lower levels of play.
T	Tick on/off. This allows you to enable or disable the ticking clock. In addition to ticking, on the levels above level 5, the computer will bleep when it has made its move.
L	Load a game from your filing system (tape, disc, etc.) into the computer's memory. The program will prompt you for the file's name.
S	Save a game to the currently selected filing system. You will be prompted for the name of the file to be saved, plus any additional information of interest (such as opponent's name, date, etc.).
E	This transfers control to the Chess Editor.
RETURN	This either starts a new game (if the last game ended in checkmate or stalemate), or, if you escaped from the old game to change some option, RETURN lets you continue the old game.

Where applicable you are presented with the following options:

R	Restart game from a board position set up by the problem section of the program. This is only possible if there is a message on the screen saying that it is possible!
N	Start from initial board position, both armies fully intact.

During a game, ESCAPE may be pressed at any time. This is not destructive, since you may continue the current game from the menu by pressing RETURN or 'fire' on either of the joysticks. You may make alterations to the options (such as level, which side or sides the computer is playing etc.).

Editor

```
                              Editor

                 P  -  Play through game
                 F  -  Find solution

                 N  -  New board position
                 R  -  Read game position
                 I  -  Initial   position
                 O  -  Old board position
                 L  -  Load Board from tape
                 S  -  Save Board  to  tape

                 W  -  White moves first
                 B  -  Black moves first

                 2  -  Mate in two moves
                 :  _
                 5  -  Mate in five moves

              Press RETURN to set up board
              or ESCAPE to quit to main menu

                  (c) Acornsoft 1983
          White to play and mate in two moves
```

P   Print or play through the game. The program asks you whether you wish to list the moves so far to the currently selected printer. If you do not reply by pressing the 'Y' key, it then enters the 'playback' mode. Here you can play through the moves played so far by pressing the up or right cursor for forwards through the moves, and the down or left cursor for backwards.

Holding the SHIFT key down with a cursor key has the effect of a fast-forward or fast-rewind through the game. If you press ESCAPE to exit at any stage between the first and the last position reached, you will be asked if you wish to continue the game from that stage. Be careful! If you answer 'Y' then all the game subsequent to that will be lost forever (unless you have previously saved it to a filing system!), but all the relevant attributes (such as castling flags, etc., but NOT clock-times) are restored as though the game were at that point.

F   Find and display a solution to the current position and report the number of moves taken.

N   New board position. Wipes the board clean, but stores the old position away in memory, so that it may subsequently be recalled by pressing '0'.

R   Read current game position. This transfers the current position in the game to the problem board. This is a more direct way of reading the game position than typing 'P'.

I   This sets up the problem board with the initial position (that is, the position that games usually start from).

O   Old board position. Retrieves the position previously stored away by pressing N (or by various other miscellaneous routines).

L & S   Load/Save board position to a filing system. This also saves the board's attributes (i.e. which side is to move, level of search, etc.), and allows additional information (such as composer, date, etc.) to be saved with the file.

W or B These select the side to try and checkmate from the current position. This would also be the side to move first if you decided to start a game from that position.

2–5   These select the level of search (in whole moves). During a search, the computer will look at all lower levels first; so, if it is looking for a mate in 3, and there is a mate in 2, it will find, and display, the shorter sequence. Searches deeper than 5-move mates are not possible in this version.

Solving Chess Problems

All that remains to be done is to give a sample chess problem that can be solved by the program, to give you an idea of how to use the facilities provided. To enter a piece at a square, simply move the flashing cursor over that square and type 'wn' for a white (k)night, 'bq' for a black queen, or 'wp' for a white pawn, for example. Pressing DELETE deletes the contents of the square. Note that the program does not allow pawns on the first or eighth rank, nor more than a single king per side, nor more than sixteen pieces per side.
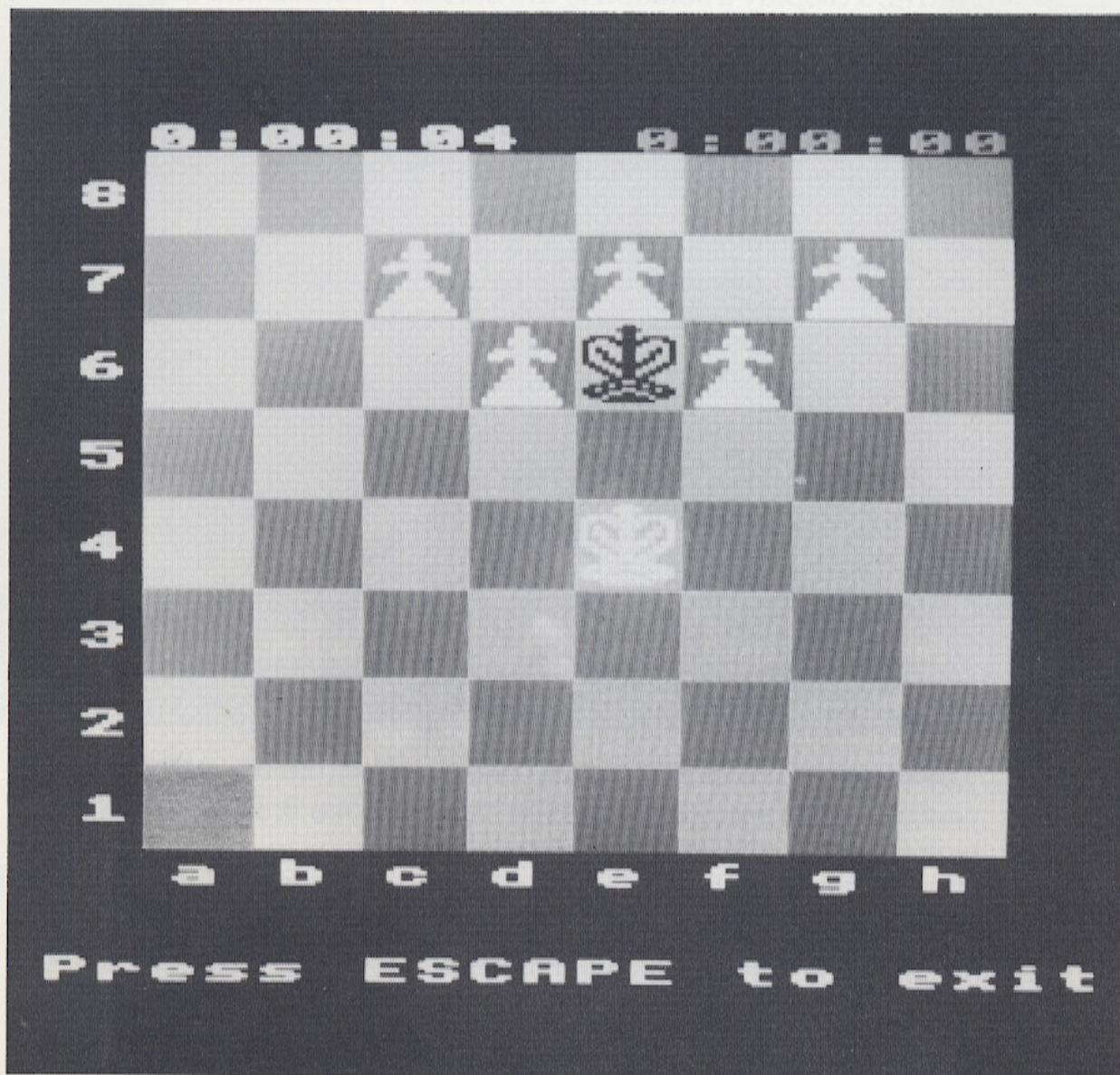
White (playing up the board) to play and checkmate Black in three moves, against any defence.