VIC=20

The friendly computer

USER'S GUIDE TO THE VIC VERSION OF SARGON II

commodore COMPUTER

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INTRODUCTION

Chess is one of the world's oldest and perhaps most popular games. The strategy behind chess is not unlike making war against a kingdom. Pawns, knights, queens and kings battle against each other--two opposing forces--white and black pieces move on a checkerboard battlefield. If you want to know more about chess we suggest you check your bookstore for one of the many books on the subject.

In the interest of ever-better computer chess, Commodore is proud to present SARGON II--the world's most popular computer chess program. The actual playing algorithm for the chess game has been improved with the result that Sargon II plays a superior game, and at a quicker speed than most other computer chess games. During the player's move, the level of play to which the game has been set is displayed. During the computer's move the ply number (How far ahead the computer is "thinking") is displayed. For those who are new to chess, the ply number will be explained in detail later.

Since at higher levels of play, the time between moves can be considerable, a flashing asterisk is displayed to indicate that the computer is "thinking". For those players who need help every once and a while, a special hint mode has been included that will suggest a good (but not necessarily the best) move that you can make. Finally, SARGON II allows you to analyze any chess problem.

GETTING STARTED

1. Turn off the power to the VIC.
2. Insert the cartridge into the wide expansion socket at the back of the VIC, with the nameplate facing UP.
3. Turn on the VIC. You should see 'SARGON II' on the screen.

ADJUSTING SCREEN POSITION

After inserting the SARGON II cartridge and turning on your VIC, the title page will be displayed. At this point you may adjust your screen setting and the color combination. (Note: Once the game has begun you can not change the screen colors).

TO ADJUST SCREEN — HORIZONTAL use the cursor right key.
— VERTICAL use the cursor down key.

ELIMINATING SCREEN "FLUTTER"

On some types of television sets your screen may "flutter" up and down when using a computer or video game. To correct this, hold down the SHIFT key and hit the yellow f7 key. (Note that doing this with a standard TV set may cause screen flutter).

CHANGING GAME COLORS

When the game comes on the COLORS are blue and white . . . . But Commodore's Sargon II chess cartridge lets you choose the color of the chessboard and chesspieces. More than 50 combinations are possible but we recommend blue and black, green and black, or blue and white.

1. TO ADJUST COLOR — Press function key 3 (function keys are the yellow keys on the right edge of the keyboard).

2. TO ADJUST BORDER COLOR — Press function key 5.

STARTING AND ENDING THE GAME

1. TO START GAME — Press function key 1
2. TO END GAME← Hold down the "RUN/STOP" key and type the"RESTORE" key at the same time.

STARTING A NEW GAME

SARGON II has two modes to choose from, which allow you to either play a game from the beginning or set up a board position from which to play.

1. After you hit the f1 key, SARGON asks if you want to play a game or set up a position. SARGON displays:

GAME OR SET UP (G, S):

Answer G if you want to Start a new game.

2. SARGON will now ask you:

YOUR COLOR (B, W):

You can choose either B (the 'black' or darker pieces) or W (the 'white' or lighter pieces), SARGON will choose the other. Remember that white always moves first.

3. SARGON next asks:

LEVEL OF PLAY (0-6):

Press the number indicating the level of play you desire. Each higher level increases SARGON's computation time and playing skill. As pieces are exchanged and the amount of material on the board diminishes, SARGON does NOT take dramatically less time to make a move. Instead the look ahead increases automatically.

Average time per move at each level is listed below. The actual time for a given move may range from about ⅓ to 3 times the times given:

**AVERAGE TIME
BETWEEN MOVES**

0   Immediate Response
1   20 seconds
2   1 minute
3   2 minutes
4   6 minutes
5   40 minutes
6   4 hours

SCREEN DISPLAY

The screen is made up of 3 distinct parts. The upper left part of the screen is the actual CHESS BOARD with the rank and file displayed on the border surrounding it. (See fig. #1) Directly to the right of the chess board is the MOVE WINDOW, where your moves are entered and the last five moves are displayed in standard algebraic chess notation. The bottom of the screen is reserved for messages from SARGON, like the level of play, whose turn it is, and the "ply" level. When SARGON is "thinking" about its next move the Commodore logo will turn red. SARGON will show what move it is currently thinking about making at the bottom of the move window. SARGON will also keep you informed about the number of moves it is currently 'looking ahead'. This is called the "PLY" NUMBER, and is displayed in the bottom right corner of the screen. So you don't think SARGON has gone to lunch it will blink an asterisk next to the game level number. On some of the upper play levels, this is a real help.

MOVING PIECES USING JOYSTICK

It's easy moving pieces with SARGON II. As with most Commodore games, you have your choice of using a joystick, or the VIC's keyboard.

With the joystick move the cursor over the piece that you wish to move, then push the button on the joystick. Now move the cursor over the position you wish to move the piece 'to' and again push the button. You have now completed your move and SARGON will display your move as if you typed it from the keyboard.

Moving the cursor on top of a piece and pushing the joystick button is the same as "picking up" a chess piece. Pressing the button the second time is the same as "setting down" the chess piece.

Hint — until you get the hang of it, you may find that you push the button too soon, which gives you an"INVALID MOVE MESSAGE". Make sure you first move the flashing cursor to the piece you want to move and then press the button to "PICK IT UP."

MOVING PIECES USING THE KEYBOARD

Moves must be entered in algebraic chess notation. This means you must tell SARGON the file and rank coordinates of the squares you are moving from and to. The **files** are lettered A-H and the **ranks** are numbered 1-8. The coordinates of the board are displayed on the border around the board. **See figure 1.**

FILE RANK — FILE RANK

Moves are entered in the form **FILE RANK — FILE RANK** where the first FILE RANK is the file and rank of the 'from' location and the second FILE RANK corresponds to the 'to' position. For

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	A	B	C	D	E	F	G	H	
8	A8	B8	C8	D8	E8	F8	G8	H8	8
7	A7	B7	C7	D7	E7	F7	G7	H7	7
6	A6	B6	C6	D6	E6	F6	G6	H6	6
5	A5	B5	C5	D5	E5	F5	G5	H5	5
4	A4	B4	C4	D4	E4	F4	G4	H4	4
3	A3	B3	C3	D3	E3	F3	G3	H3	3
2	A2	B2	C2	D2	E2	F2	G2	H2	2
1	A1	B1	C1	D1	E1	F1	G1	H1	1

RANK (left) **RANK** (right)

A   B   C   D   E   F   G   H

FILE

Figure 1. Board Coordinates

example, to play the king's pawn up two squares you would type:

E2-E4 (and hit the return key)

(Actually you can use anything in place of the "—".) When SARGON responds with the corresponding move, it will display it's own move below yours in the "Move Window". For example, if you move E2-E4 SARGON Might display:

E7-E5

If you make an **error** before hitting RETURN, press the DELete key to erase the error and then retype the move. If you type an illegal move (like moving a pawn sideways) SARGON WILL BEEP AT YOU AND PRINT "INVALID MOVE" on the bottom border, hit DELete to restore the bottom border, then retype your move. If you keep getting "INVALID MOVE" check your chess book for proper moves of each piece, or scan the board carefully to make

sure you aren't in "check." Another common mistake is trying to castle when in check, or castle "through" a check square, resulting in an INVALID MOVE.

SPECIAL MOVES

To Castle:

If using the keyboard, just type the king's move and hit RETURN. The rook will tag along. For example, if you are white and you wish to castle king's side, type:

E1-G1 (return)

You will see both your king and rook move. SARGON lists it as 0-0 or 0-0-0 as in normal chess notation. The joystick move is also automatic.

To Capture En Passant:

If you wish to capture one of SARGON's pawns using the En Passant privilege, enter your pawn's move. After your pawn move is displayed, SARGON's pawn will blink than vanish. When SARGON captures En Passant, his move is displayed in the same way. The move is listed as **PXPEP.**

WHAT THE SOUND EFFECTS MEAN

SARGON II will beep to tell you it has finished thinking and is moving. It will also beep to signal you if your move is illegal. To see the letters after an illegal move press the delete key once. It will

not audibly signal a CHECK, although it will say "CHECK" at the bottom of the border of the chessboard. It will beep rapidly several times in succession to signal a CHECKMATE by either side.

HINT MODE FOR BEGINNERS — SARGON "KIBITZ"

A hint to the player giving what the computer thinks is his best move is available for most non-book moves. (Ah, but will SARGON II give you a move it doesn't have to answer for?) To get the computer to look over your shoulder in this fashion, press the question mark (?) key and SARGON will display the move for you in the entry portion of the scroll window.

Note: "Kibitz" was not designed to work at level 0. Although you may occasionally get it to work at that level, the moves it advises may not even be legal. Remember the castle move is displayed differently from the way it is entered. Also, Kibitz may not work until you have proceeded far enough into the game so SARGON is looking ahead.

LEVEL # and PLY #:

When the board is displayed, the Level # you have selected is labeled and displayed in the upper right-hand portion of the screen. Once SARGON II gets beyond its opening 'book' moves you will also see the Ply # (unlabeled) displayed to the right of the level #.

The **Ply #** is the number of half moves ahead of the current move that the computer is currently searching. A Ply of 3, for instance, indicates that the computer has already examined its possible

moves and your possible countermoves, and is currently examining its possible replies to your countermoves. The Level # you choose at the beginning of the game, or after changing the board represents the MINIMUM Ply to which the computer will search. (In the beginning and toward the end of the game, SARGON II will automatically search more deeply.)

The exception to all this is Level 0 where the computer will only examine its next move at any stage of the game except where a check is involved.

The blinking asterisk beside the Ply # is just to assure you that SARGON II is in fact thinking, not asleep.

TO END A GAME OR TAKE BACK A MOVE

Wait until it is your turn. Then press the STOP & RESTORE keys at the same time. SARGON will display the title page. To end the game and leave SARGON, simply turn off your VIC. To change the board proceed to the following section.

IF YOU HAVE CHOSEN TO CHANGE THE BOARD (SETUP)

You can take back a move, or set up the board to play from any point in a game. If you're beginning a game and want to set up a special situation, press the S key when SARGON asks if you want a "GAME OR SETUP:" If you're in the middle of a game, hold down the RUN/STOP key and hit RESTORE then type F1 and S. If you were already in the middle of a game the board will be displayed just as you left it. The lower left-hand corner will blink. That's your signal that you can change the contents of that square, using one of the analysis commands as follows:

You may move to other squares on the board by using the cursor keys. These keys will leave the contents of the square unchanged and blink the square into which you have moved.

To place a piece on a square type in the piece code followed immediately by the color code and the code indicating whether the piece has been moved. The piece code is a letter indicating the desired piece.

K — King	**B — Bishop**
Q — Queen	**N — Knight**
R — Rook	**P — Pawn**

The color code is a letter indicating the side the piece belongs to:

W — White	**B — Black**

The last code tells the computer whether the piece has been moved:

0 — Not Moved	**1 — Moved**

Telling the computer whether a piece has moved ensures legal castling and pawn moves, and tells SARGON II for evaluation purposes whether the piece has ever been developed.

Examples:

To place a black pawn on its original square type:

PB0

A white knight in the middle of the board would be:

NW1

A black king on its original square which has, however, moved:

KB1

When you have finished changing the board type RETURN to exit the board.

SARGON II will then ask:

COLOR TO MOVE NEXT (B, W):

Just type the appropriate letter.

The next question will be:

MOVE NUMBER (NN):

Try here to enter the move number appropriate to the state of the game you are setting up. This number is taken into account by SARGON II in choosing a strategy which corresponds to the stage of development of the game.

Next comes:

YOUR COLOR (B, W):

Again type the appropriate letter.

Finally:

LEVEL OF PLAY (0-6):

When you have typed the appropriate number the game will automatically proceed from the point you designated.

We wish you many thoughtful hours of good chess.

TEACH YOURSELF CHESS

YOUR FIRST GAME OF CHESS

Using this chess cartridge and a few simple instructions, you can actually teach yourself to play chess! The computer will help you, mostly by trial and error, to understand the game...but before you begin you need to understand a few basic concepts.

Here are the most important hints you need to know about Chess before you learn the game:

OBJECT OF THE GAME

The main objective of the game is to checkmate (capture) your opponent's king before he captures yours. Whoever "checkmates" the other's king first wins the game. CHECKMATE simply means, backing the enemy king into a corner so he cannot prevent you from capturing him.

CAPTURING YOUR OPPONENT'S PLAYERS — While maneuvering

While maneuvering to checkmate the enemy's king, it will help if you can eliminate (by capturing) the enemy's most powerful pieces. To "capture" an enemy chess piece, all you have to do is move one of your players to the same square as the enemy piece. The enemy captures your piece the same way. The piece that's moving occupies the square. The piece that was there before gets taken off the board.

EACH CHESS PIECE HAS UNIQUE MOVEMENTS

Every piece can only make certain types of movements on the chess board. These movements determine how you use your pieces during the game . . . generally, to attack the enemy or defend your own pieces.

EACH CHESS PIECE HAS A "RANK" OF POWER OR IMPORTANCE

Obviously, your king is the most important piece and must be defended at all costs. But all the other players have "rank" as well. Your queen, for example, is the most important player in your "army." The ranking is important because in general, a piece may sacrifice itself to capture a higher ranking piece. For example, if a bishop can capture a queen -- but will himself be captured on the next move -- he will almost always make the sacrifice because the queen is the more important chesspiece.

These, then, are the basic concepts of chess. A bit oversimplified, perhaps, but enough to get you started.

HOW THE PIECES MOVE -- A BEGINNER'S REFERENCE GUIDE

Here is a brief introduction to the different pieces, with RULES OF MOVEMENT and other comments shown in this easy to use reference guide -- NOTE THAT THE PIECES ARE LISTED IN ORDER OF THEIR IMPORTANCE AND RANK/POWER.

CHESS PIECE	MOVEMENT RULES

KING
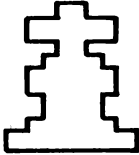
The king can move 1 space at a time in any direction. The king can also CAPTURE other pieces ... BUT ... If an enemy piece moves into a position where it can CAPTURE your king on the NEXT MOVE your king is IN CHECK. When you're in CHECK you cannot move any other piece until you remedy the CHECK situation. IF IN CHECK, you only have 3 options: move the king, move a piece between the attacker and the king, or capture the attacking piece. When you cannot do any of these 3 things, your situation is hopeless and you are CHECKMATED. It is a good practice to try **not** to move the king early in the game in case you want to CASTLE later on. Once you move the king you cannot castle. CHECKMATE means one player will CAPTURE the king on the next move and the king cannot prevent it.

QUEEN
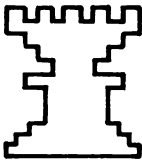
The queen starts next to the king, and can move in any direction, as many spaces as you want. The queen can move frontward, sideways, diagonally and backwards, but cannot jump over or go around other pieces which may block her way. As the most powerful piece on the board you should try not to lose your queen. Keep in mind that all the other pieces except the king are LESS important than the queen.

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CHESS PIECE (Con't.)

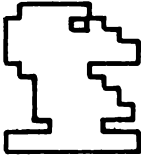## MOVEMENT RULES (Con't.)

CASTLE or ROOK
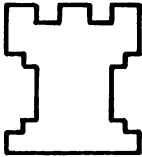
The Castle sits on the ends of the first row. It only moves in a straight line forward or sideways (NEVER diagonally). One way to protect your king is to CASTLE ..if you HAVEN'T MOVED either your king or castle and there are NO other pieces between them, you can move your king next to the castle and the castle will automatically JUMP OVER the king. This is called CASTLING and is one way to quickly move your king to safety. NOTE YOU CAN'T CASTLE IF YOUR KING IS IN "CHECK" (THREATENED) BY AN ENEMY PIECE.
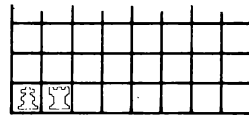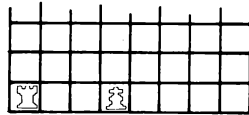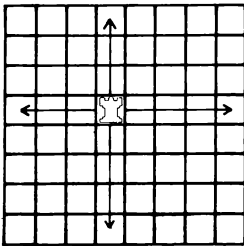
KNIGHT

The knight (or "horse") moves 3 SPACES AT A TIME, always in an "L" shape. Imagine the knight at the TOP or BOTTOM of the L, and the L can be backward or front-
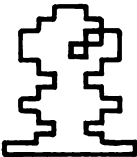
KNIGHT (Con't.)

MOVEMENT RULES (Con't.)

ward. Just count 3 spaces...2 ahead and 1 sideways, or 1 ahead and 2 sideways. The knight is the only piece that can JUMP OVER OTHER CHESS PIECES. You can jump over your own pieces or jump over the enemy's. To CAPTURE a piece simply move 3 spaces in an L-shape and land on top of the enemy piece you want to capture.
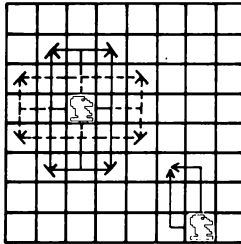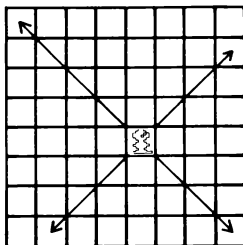
BISHOP

Bishops move diagonally, frontward or backward, as many spaces as you want as long as you don't bump into another piece. Notice you have a white bishop which will always move diagonally on the white squares and a black bishop who always moves on the black squares.
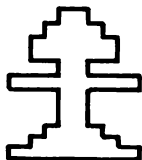
CHESS PIECE (Con't.)

MOVEMENT RULES (Con't.)

BISHOP (Con't.)

PAWN

The pawn moves 1 space at a time, forward only. It cannot move sideways or backwards. ON THE FIRST MOVE ONLY, the pawn can move either 1 OR 2 spaces and then 1 space at a time after the 1st move. To CAPTURE another piece, the pawn must move one square DIAGON-ALLY. The pawn can only move diagonally to capture a piece, and cannot capture a piece by moving straight ahead. A pawn generally "controls" or threatens the two diagonal spaces directly in front of it.

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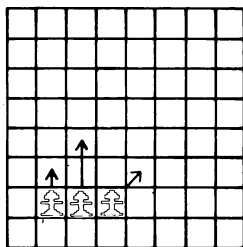
There are, of course, several special moves like "en passant" which are covered elsewhere, but these comments should give you enough of a reference to begin playing.

YOUR FIRST GAME . . . LEARN BY DOING

LET'S HAVE A GAME OF CHESS! What? You haven't played before? Well, relax. Here's a good series of opening moves which will give you a general idea of how to play the game. These moves involve some good habits . . . for example:

-- controlling the "center" of the chessboard generally gives you an advantage.

-- moving pawns and knights out first is a good opening strategy.

-- clearing a space between the king and the castle allows you to "CASTLE" to protect the king.

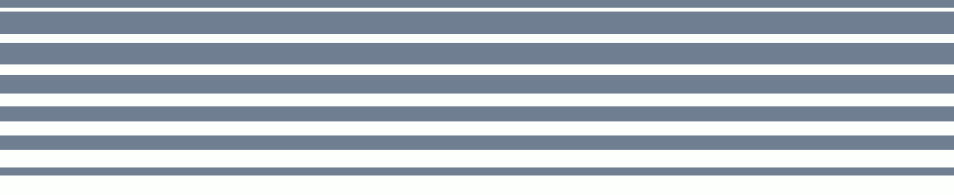## HERE ARE THE MOVES YOU SHOULD MAKE IN ORDER (Use Either Joystick or Keyboard)

1. Insert cartridge and turn on VIC.
2. Push **f1**.
3. Press **G**.
4. Press **W**.
5. Press **O** (Zero).
6. **D2-D4** (RETURN) - Queen's Pawn.
7. **G1-F3** (RETURN) - King's Knight.
8. **F3-E5** (RETURN) - Knight to Center.
9. **B8-C3** (RETURN) - Queen's Knight.
10. **E2-E3** (RETURN) - King's Pawn.
11. **F1-D3** (RETURN) - King's Bishop.
12. **E1-G1** (RETURN) - Castling.
13. **G2-G3** (RETURN) - Pawn.
14. **H2-H4** (RETURN) - Pawn.
15. YOU'RE ON YOUR OWN!

From here out, you're on your own . . . sorry . . . you'll have to complete your first game by yourself. Just remember your 3 alternatives if you find yourself in check. (The computer will tell you if you're in CHECK):Move your king to safety . . . move another piece between the attacker and your king . . . or capture the attacking piece. Another hint: don't let an enemy knight get too close to your lines or he'll put your king in check and threaten your castle at the same time and you'll lose your castle.

One more thing . . . don't get discouraged . . . you really can beat the computer if you keep at it. Many beginners have beat the computer on Level 0 within a week or two after they play their first game, depending on how much they practice. If you get really bold and want to play at Level 1, there's a special HINT feature built into SARGON which will suggest a GOOD MOVE (not necessarily the BEST) . . . just enter 1 when the VIC asks what level to play at, and type a QUESTION MARK (?) if you want a hint from the computer. This should help you get a faster idea of how the game is played.

Last but not least . . . **GOOD LUCK!**

NOTES

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