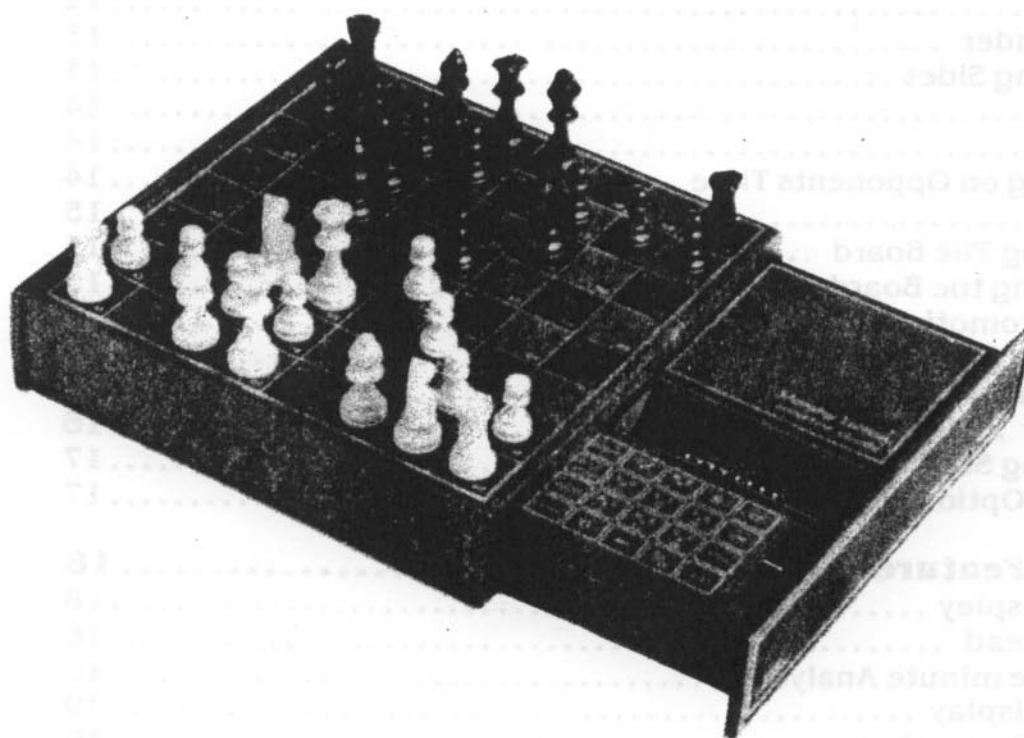


DESTINY® Presents

Steinitz Edition master chess



OPERATION MANUAL

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I. YOUR NEW GAME CARTRIDGE

Good News! Your new game cartridge reflects the latest state of the art enhancements to high level strategy game play. Your **STEINITZ EDITION** of Master Chess is the most recent of a long list of world famous chess programs developed by Destiny of Applied Concepts, Inc. This **STEINITZ EDITION** is one of the strongest chess programs commercially available today. **STEINITZ EDITION** is a four megahertz cartridge. It will play at four megahertz on the MEGA 4 Great Game Machine or at two megahertz on the MGS or the original Great Game Machine.

The Master Series of Machintelligence Games

Destiny has long had a commitment to continue updating the level of play of its artificial intelligence games. This commitment has never been more evident than in this **STEINITZ EDITION**. Our programmers have researched the great masters of chess, checkers, reversi, kriegspiel and blackjack, and incorporated into our new games the techniques and strategies employed by these Masters.

About Wilhelm Steinitz (1836-1900)

Wilhelm Steinitz was born in Prague, and came to Vienna as a youth in 1858, the year the first American Chess Champion, Paul Morphy, won the *unofficial** World's Championship of Chess by defeating Adolf Anderssen, the first International Tournament titleholder.

Though this match was held in Paris, much interest in it was generated in Vienna, where the Vienna Chess Club was grooming young Steinitz for a world's title.

In 1866, when presenting Steinitz with an all expense paid trip to London to meet Anderssen for the first official world's championship tournament (Morphy had retired from chess in 1864), the chess club president said to his protege "Go West. I want you to be Morphy's successor."**

And so he was. Though not proclaiming his World Championship until after Morphy's death, Steinitz became famous as the Chess Master who combined the incomparable Morphy techniques with his own cold calculating strategies.

Because of his relentless, methodical play, Steinitz was not a popular champion, though he remained undefeated for 28 years. In fact, when he finally did suffer defeat in 1894, many said that Emueal Lasker had not defeated Steinitz - age had!

**Paul Morphy never claimed the World's Championship title so chess history shows Steinitz as the first World's Champion, reigning from 1886-1894.*

***Resource for biographical data: International Championship Chess; B. Kazic, Pitman Publishing Company, NY., N.Y.*

II. THE GAME OF CHESS

The History of Chess

In the fifth century A.D., a game called "chaturanga" made its appearance in historical records in northwestern India. "Chaturanga" as it was played then is easily recognizable, with few differences, as our modern chess. The game spread west into Persia, and from thence along the ancient trade routes to the shores of the Mediterranean, reaching Europe by about 1000 A.D. The Norman Conquest brought chess with it into England; the Spanish soldiers and French explorers introduced it first into the New World of the Americas. By the 17th century chess had developed the exact form we enjoy today, although slight rule variations have been added, and fashions in strategy continue to change from decade to decade.

The Game

Chess is the classic game of maneuver and control. It is played on an 8x8 board between two players, each with initial armies of 16 pieces set up as shown (Figure 1):

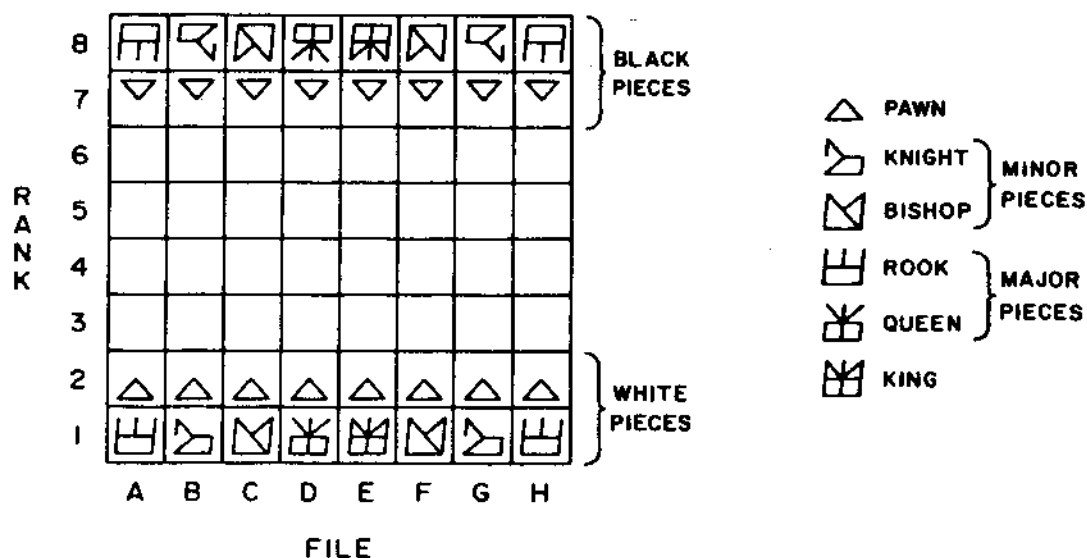


FIGURE 1

The players take turns, starting with White, each moving one piece per turn with the goal of capturing the enemy king. Only one piece can occupy a square at a time, and an enemy piece may be captured by occupying its square and removing it from the game.

The eight columns or files of the board are lettered A-H and eight rows or ranks are numbered 1-8 as shown. Each square is identified by its file and rank; thus the Black King is initially on square E8.

The Pieces

There are six kinds of pieces as shown, each with its own pattern of movement:

The Pawn, represented by an arrowhead, can advance along its file in the di-

rection of its arrowhead one square per turn onto an unoccupied square, as shown by the solid arrow in Figure 2. It is, however, able to capture an enemy piece diagonally ahead of it, as shown by the dotted arrows, and is the only chess piece to move and capture differently. The pawn is the foot soldier of chess, needing support from the other pieces to advance safely, but vital in holding territory. See also Double Advance, En Passant, and Queening below.

The Knight, represented by a horse, moves obliquely, 2 squares laterally and 1 to either side, as shown in Figure 2. It does not travel directly over any other squares and therefore cannot be blocked, making the Knight ideal for behind-the-lines raids. It is worth about three pawns.

The Bishop, represented by a miter, moves diagonally any number of empty squares as shown in Figure 2. It may capture an enemy encountered on the diagonal, but cannot continue beyond an occupied square. A Bishop can never encounter its brother since they are confined to squares of opposite color, but it is a nimble piece, able to cross the board in a single move. It is worth about three pawns.

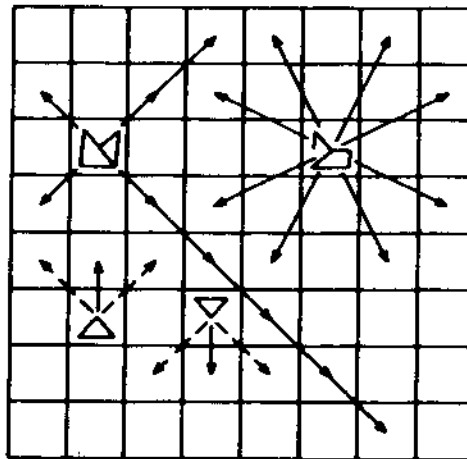


FIGURE 2

The Rook, represented by a castle, moves laterally any number of empty squares as shown in Figure 3. It may capture any enemy encountered, but cannot continue beyond an occupied square. Although too valuable and confined to risk in the opening game, it is a powerful piece, able to force checkmate of a lone enemy king. It is worth about five pawns. See Castling below.

The Queen, represented by a diadem, moves diagonally or laterally any number of empty squares as shown in Figure 3. It combines the moves of Bishop and Rook and is the most powerful piece by far, but must be used carefully since its uncompensated loss is generally fatal. It is worth about nine pawns.

The King, represented by a crown, moves one square in any direction as shown in Figure 3. It is vulnerable to attack if exposed, but must nonetheless

be ready to play an active role once the major pieces have been captured. It is of course invaluable; any other piece must be sacrificed if necessary to save the King. See Castling below.

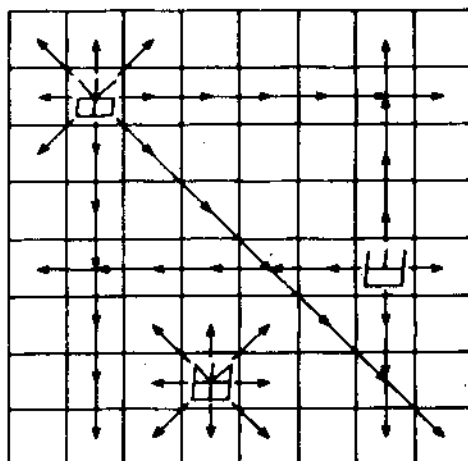


FIGURE 3

If a player moves so that he could capture the enemy king with his next move, the king is said to be in *check*, and it is customary to warn the opponent of this. It is illegal for a player to expose his own king to check, or to leave it in check when it can be saved. If it cannot be saved, the check is *checkmate*, and the game is then ended before the king is actually captured. A game is considered a draw if neither player can proceed to checkmate. A player must move when it is his turn, but if every move would expose his king to capture thus be illegal, the game is considered *stalemate* draw; achieving this may be the strategem of last resort for a losing side.

Special Moves

In the seventeenth century, the following special moves were added to the game of chess:

Double Advance and En Passant. For faster development, a pawn may advance two squares, provided they are unoccupied, from its initial position. However, this is not intended as a move to bypass an enemy pawn that would have been able to capture had a single advance been made. In such a situation (Figure 4), the double advance is permitted, but the opponent has the *en passant* option, for his next turn only, or returning the pawn to a single advance and capturing it there.

Queening. If a pawn successfully reaches the opposite edge of the board, it is *promoted* to any other piece, except a duplicate king. The choice is usually a queen, and this dramatic increase of power makes the advance and *queening* of a pawn the critical feature of the end of many games.

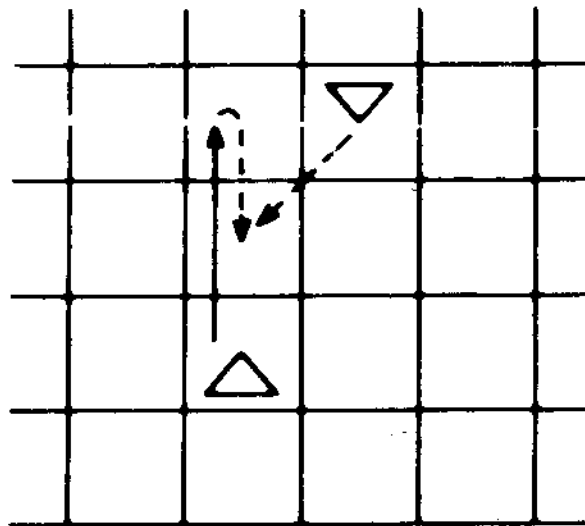


FIGURE 4

Castling safeguards the king while centralizing the rook. If a previously unmoved rook can move to the previously unmoved king and be unattached there, the player may place the king on the other side of the rook (Figure 5). Castling out of check is not permitted.

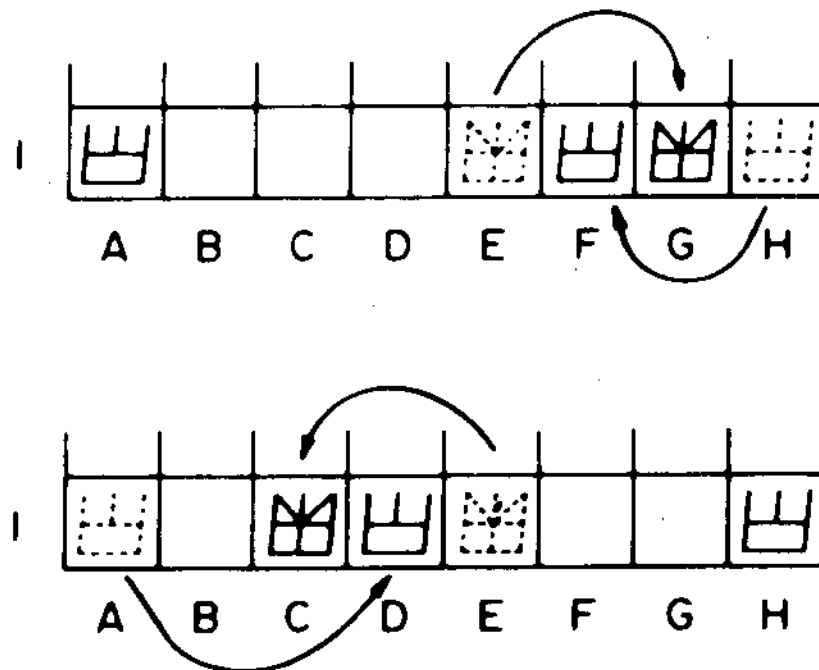


FIGURE 5

III. HOW YOUR GAME CARTRIDGE WORKS

Game Cartridge Concept

As discussed earlier, this game cartridge must be played on a separately purchased Destiny's Game Computer.

This **STEINITZ EDITION** Cartridge comes packaged with an operation manual and a keyboard overlay.

Game Cartridges are inserted as shown in Figure 6. To remove pull the cartridge to the left and then lift out. Insure that ON/OFF switch is either in OFF or MEMORY position before inserting or removing this cartridge.

Keyboard overlays are inserted as shown in Figure 6. Remove overlay by slipping a fingernail under the overlay next to either the top or bottom half and bowing the overlay outward.

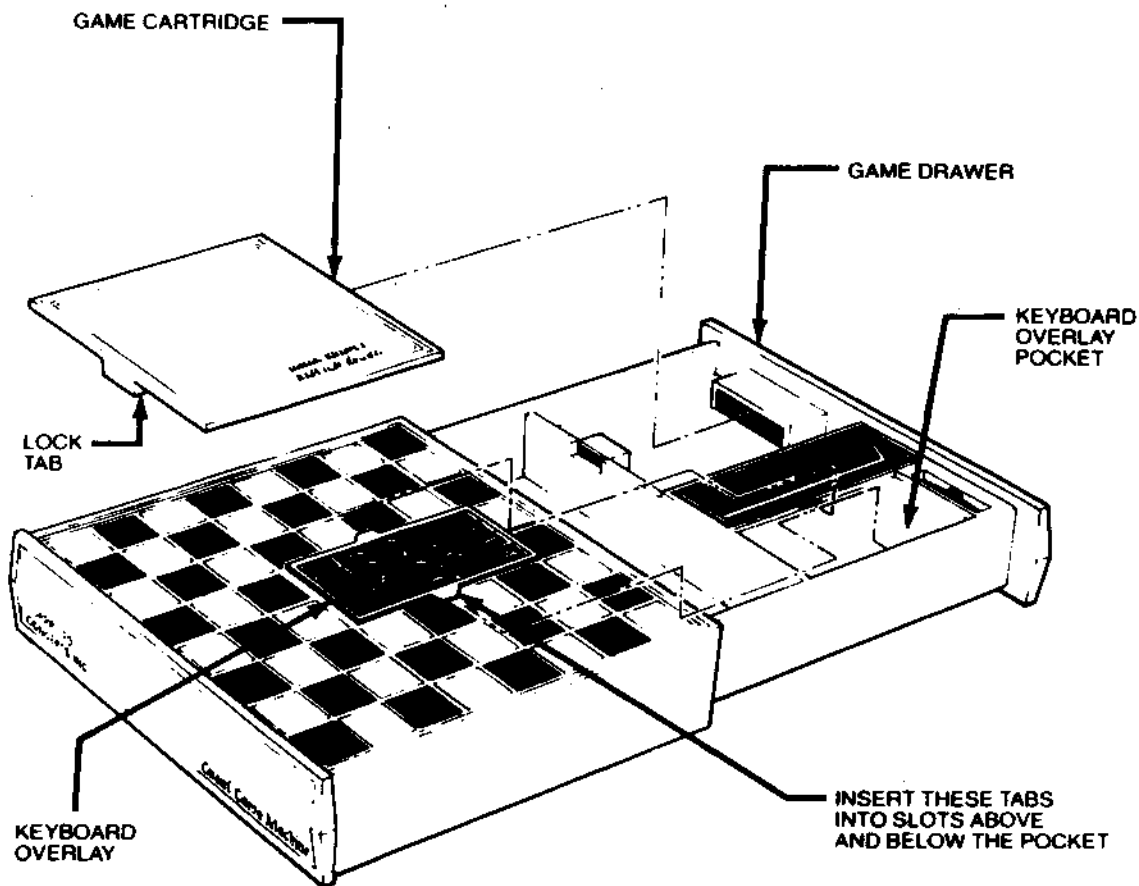


FIGURE 6

This cartridge concept makes it possible for you to build a library of strategy games at a minimum of cost. In addition, this concept allows you to continue updating this library with the very latest program development as they come available.

Important Do's and Dont's

DO read the manual for the Game computer upon which you will play this game cartridge. The features set out in the operation manual for your game computer will give you valuable information as to how best to get the maximum from this game cartridge.

DO follow all the recommendations set out in the game computer operation manual and this manual.

DON'T attempt to insert and remove this cartridge with the ON/OFF switch in the ON Position!

DON'T close the game drawer on your game computer with the power ON! Overheating may result and severely damage this game cartridge.

DON'T mishandle this cartridge. The programs that it contains are highly sensitive and can be damaged if dropped or placed in wet or extremely hot conditions.

IV. PLAYING A GAME WITH STEINITZ

1. Plug in the unit. Slide the unit open. Set up the chess board.
2. Move the ON/OFF switch to the ON position. You will note on the feedback/move indicator that the computer will display "MOVE?". Be sure not to slide the switch past the center ON position.

STEINITZ will then show:



The 1 is the move number. The hyphen shows the side to move.

WHITE TO
MOVE



BLACK TO
MOVE



Since **STEINITZ** plays Black, he is waiting for you to enter a move. To make **STEINITZ** play White, press (B/W).

3. Each square on the chessboard is identified by a pair of coordinates:

FILE LETTER (A-H)
RANK NUMBER (1-8)

Each move on the chessboard is identified by a pair of squares:

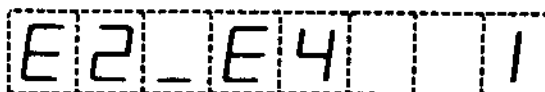
FROM SQUARE
TO SQUARE

This cartridge's keyboard has keys identified with both letters and numbers. These keys give **STEINITZ** the file-rank coordinates for your moves. Six of these keys are also identified with **STEINITZ**'s special chess piece symbols. The piece symbols are used to modify **STEINITZ**'s internal chessboard (see Modifying the board in the Special Features Section).

Make your move on the chessboard. To key it in, enter the coordinates of the "from" square and then the "to" square, using the multi-purpose keys.

Example: After advancing your king pawn two squares, press these four keys:

(E) (2) (E) (4)



4. Check that the display shows your move correctly. If there is an error, clear the entry using (CE) and start over.
5. When the display is correct, enter the move using (ENTER).

STEINITZ will beep his approval. He may then respond instantly or he may begin computing. **STEINITZ** will flash numbers on the feedback/move indicator while he is computing then beep and show his response.

Example:



Note that **STEINITZ** will not always make the same response. The 2 indicates that we are now ready for the second move for each side.

6. Move **STEINITZ's** piece, and enter your next move as in step 3. It is not necessary to press (CE) to clear **STEINITZ's** move from the feedback/move indicator. **STEINITZ** will automatically clear it when you start to enter your move.

STEINITZ will show CK, MT OR ST in place of the move number when he checks, mates, or stalemates you. If you make an illegal move, **STEINITZ** will refuse to enter it. After displaying **ILLEGAL**, he will re-display the move coordinates for you, so you can note why it is illegal. Simply re-enter your move as in Step 3.

If you checkmate **STEINITZ**, he will beep several times, and display **CONGRATULATIONS**. If you stalemate **STEINITZ**, he will also beep several times and display **STALEMATE**.

To enter a new game after checkmate or stalemate, press (ENTER).

Entering Special Moves

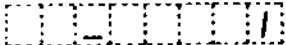
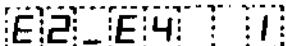
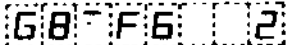

Queening. **STEINITZ** automatically turns a pawn into a queen when it reaches its far rank. You can override this if you wish; see Underpromotions in the Special Features section.

En Passant. Enter the move of your capturing pawn. **STEINITZ** will automatically remove his captured pawn.

Castling. Enter the move for the king only; **STEINITZ** will automatically move the appropriate rook. **STEINITZ** tells you in a similar fashion when he has decided to castle.

Sample Game

The following shows the start of a game with **STEINITZ**. **STEINITZ** is designed to vary his play so he will not always respond with these moves.

Operation	Display	Description
Power On		After "MOVE"
(E) (2) (E) (4)		Player advances King Pawn
(ENTER)		Steinitz develops King Knight
(E) (4) (E) (5)		Player advances Pawn threatening Knight

(ENTER)	F6-D5 3	Steinitz advances Knight
(B) (1) (C) (3)	B1-C3 3	Player develops Queen Knight
(ENTER)	E7-E6 4	Steinitz develops King Pawn
(C) (3) (D) (5)	C3-D5 4	Player captures King Knight
(ENTER)	E6-D5 5	Steinitz captures Queen Knight
(D) (1) (F) (3)	D1-F3 5	Player develops Queen
(ENTER)	C7-C6 6	Steinitz develops Queen Bishop Pawn
(D) (2) (D) (4)	D2-D4 6	Player develops Queen Pawn
(ENTER)	D7-D6 7	Steinitz develops Queen Pawn
(C) (1) (F) (4)	C1-F4 7	Player develops Queen Bishop
(ENTER)	D6-E5 8	Steinitz's Queen Pawn captures Player's King Pawn thereby threatening Player's Queen Bishop
(F) (4) (E) (5)	F4-E5 8	Player's Queen Bishop captures Pawn

(ENTER)

F7 F6 9

Steinitz advances Pawn
to threaten Bishop

(E) (5) (F) (4)

E5 F4 9

Player retreats
Queen Bishop

(ENTER)

F8 B4 CK

Steinitz advances
King Bishop
Check

V. SPECIAL FEATURES

STEINITZ has a wide variety of Special Features which have long been a standard in Destiny's chess programs. These Special Features are achieved through the use of certain keys on the keyboard. The Special Feature Keys are designated with gold lettering. In addition, **STEINITZ** has a number of Super Features achieved through the use of dual purpose keys, designated in green, on the keyboard. The Super Features are described in detail in the next chapter.

Audio ON/OFF

This cartridge is equipped with a feature that allows you to turn off the audio responses should you desire. Just press (AUDIO) to stop the sound. Depress it again and the sound will return.

.Best

The .Best key allows you to choose between two modes of play for **STEINITZ**. When you press (BEST), **STEINITZ** displays a small dot to the right of the hyphen. In this mode, **STEINITZ** will always play one of a few single moves that he considers exactly equal. Very little variety is included in his play. When this feature is not in effect, no dot is displayed. In normal mode **STEINITZ** will not always make the same response to any given move. Instead he selects a move from a number of moves which he considers to be about equal.

Restore

STEINITZ's RESTORE is a flexible control, designed for players of all strength levels. Pressing (RESTORE) allows you to correct blunders by "erasing" up to 16 previous moves, ply by ply, starting at the last move and sequencing back on command 32 ply.

Pressing (RESTORE) while **STEINITZ** is computing halts his searching and in addition restores the internal board to its original position.

Modifying the board erases **STEINITZ**'s memory of all previous moves. Therefore, the (RESTORE) key will not function immediately after modifying the internal board.

Review and Return

Through the use of the (RESTORE) and (REVIEW) keys, you can review previous moves a ply at a time up to 16 previous moves (32 ply). After reviewing these previous moves you can return to the current move (or any move in between) through the use of the (REVIEW) key. The (REVIEW) key will bring the **STEINITZ** back to the current move a ply at a time.

Level

STEINITZ has several levels of play designed to challenge players of various strengths and/or patience.

The levels and their meanings are as follows:

Level Description

- 0** A special mate finder level used for quickly solving any mate-in-one up to mate-in-eleven problem. Some problems may take hours or days.
- 1** At power on **STEINITZ** is set to Level 1. A fast paced game, **STEINITZ** averages 5 seconds per move (60 moves/5 minutes).
- 2** **STEINITZ** plays at 15 seconds per move (60 moves/15 minutes).
- 3** **STEINITZ** plays at 1 minute per move (60 moves/60 minutes).
- 4** **STEINITZ** plays at 5 minutes per move (48 moves/240 minutes).
- 5** **STEINITZ** plays at 15 minutes per move (16 moves/240 minutes).
- 6** **STEINITZ** plays at 1 move/ 30 – 60 minutes.
- 7** Tournament Level designed to play 30 moves per hour.
- 8** Tournament Level designed to play 40 moves every two hours (120 minutes).
- 9** Designed for postal chess, **STEINITZ** will compute to his maximum depth or until (HALT) is pressed.
- TM** Time Level. At this level you can set your own time parameters under which you wish to compete with **STEINITZ**. Setting this parameter is described in the next chapter under "Time Parameters".

The Mate Finder

Program in any mate-in-one to mate-in-eleven problem, and watch **STEINITZ** solve it easily. Try the mate-in-two problem below — **STEINITZ** solves it instantly.

White to mate in two:

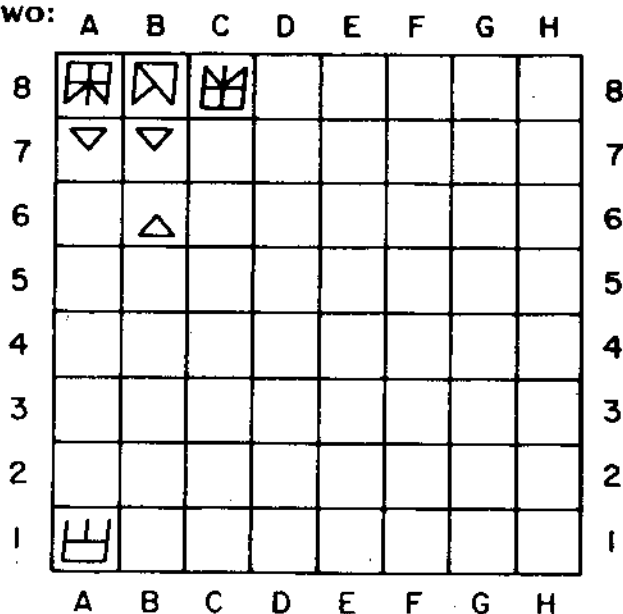







FIGURE 7

1. Switch **STEINITZ** from OFF to ON.
2. Press the [RANK] key.
3. Press the [CE] key.
4. Press the () creating white rook on A1.
5. Press [RANK] key.
6. Press the [CE] key clearing the 2 rank.
7. Press [RANK] key advancing to Rank 6.
8. The hyphen is now used to locate pieces on the desired file. On each file, the (→) starts out in the left-most square. Pressing (→) moves the hyphen to the right. Remember that the [B/W] key can always be used to locate the hyphen without moving it. Press (→) once to advance to file B on rank 6. Press () to create a pawn on B6.
9. Press [RANK] to advance to Rank 7.
10. Use the (→) twice to leave in black pawns on files A & B. Press [O] key to blank out remaining pawns on Rank 7.
11. Press [RANK] key to Rank 8.
12. Press [CE] key to clear rank.
13. Press [B/W] key then enter Black King and bishop with the () and () keys. Press [B/W] and enter White King ().
14. Press [ENTER] to exit from rank mode and return to play. Set the level to 0.

To see the solution, press [B/W] and **STEINITZ** will display the solution (A1-A6) and announce MATE IN ONE. Step up to any other level to follow through to the solution, or enter your own move and he will give you the next move to the solution.

Changing Sides

You may change sides with **STEINITZ** at any time during a game. Just press [B/W] when it is your turn to move. **STEINITZ** will immediately begin thinking with colors reversed. If you wish to play Black from the start of the game, press [B/W] instead of an initial move.

Hint

You can use **STEINITZ** as a Chess Tutor to see what he would do in your place. When it is your turn to move, press [HINT]. **STEINITZ** will suggest a move on the feedback/move indicator. To play the suggested move, press [ENTER]. No hint is available immediately after modifying the board, but if you wait 10 to 15 seconds, **STEINITZ** will calculate one. Just press [HINT] until the suggested move is displayed.

Halt

While **STEINITZ** is thinking he flashes the best move he has found so far. You can halt **STEINITZ**'s thinking and force him to make that move by pressing [HALT]. The Halt feature is useful if you set **STEINITZ** on a high level and are now tired of waiting for his move, or if you discover that you have just made an error. Note: Halt is not a feature of the mate-finder mode, see RESTORE for further instruction.

Thinking on the Opponent's Time

If you have **STEINITZ** set to level 1-TM, **STEINITZ** will continue thinking while you are deciding on a move. **STEINITZ** assumes that you will make the move suggested in the Hint and begins at once to compute his reply. This

may result in **STEINITZ** responding instantly if you make the Hint move. Pressing [RANK] does not stop **STEINITZ**'s internal thinking. Only modifying the board will cause a change in **STEINITZ**'s computing after returning to the ENTER mode.

Timer

STEINITZ is equipped with an automatic timer. The Timer keeps track of the amount of time the player or **STEINITZ** has spent on the current move and the total time each has taken so far in the game.

If it is your turn to move, pressing [TIME] will show you how much time you have for this move.

For example the feedback/move indicator will display:



This display would indicate that you have been considering this move for 3 minutes and 5 seconds.

The timer continues to count times while it is being displayed. To find out the total time you have used in the game so far, press [TIME] and hold it down:

For Example:



You have used 1 hour, 28 minutes, and 44 seconds so far in the game.

To find out how much time **STEINITZ** has used, press [B/W].

When **STEINITZ** is thinking, pressing [TIME] gives **STEINITZ**'s time. Your time can be displayed by pressing [B/W]. In any case the position of the hyphen shows who's time is being displayed.



Recalling the Board

STEINITZ is constantly altering his internal board as you play, so that he always knows where all the remaining pieces are. You may recall **STEINITZ**'s internal board for display at any time by using the [RANK] key. This steps through the board from Rank 1 to Rank 8, showing the rank number while the key is held down, and the pieces in position on the rank board when released. The symbols used are described in Section II. The display returns to showing rank 1 following display of rank 8. To return showing the moves press [ENTER].

Modifying the Board

When it is your turn to move, any piece can be added to or removed from the board as follows:

1. Step up to its rank using the (RANK) key. Clear the rank if necessary using the (CE) key.
2. Step across to its square using the (→) key. The (→) starts with file A and advances one square when pressed. After reaching the right-most square, the hyphen returns to the left.
3. Change the color of the piece located at the hyphen by using the (B/W) key if necessary; note the hyphen will form the base of the new piece. The (B/W) will invert the hyphen, displaying it while pressed, and may be used to find the hyphen without advancing it.
4. Create the new piece using the (△)-(♞) keys. The (0) key erases the piece on a square. The hyphen is then advanced to the next square automatically.
5. Return to Step 1 or 2 for further modifications. Press (B/W) to set the side to move, then return to playing mode by pressing (ENTER). **STEINITZ** shows the side to move by the positioning of the hyphen (Up-Black, Down-White).

This modifying procedure can be used to correct an inadvertent error on your part, to set up a particular chess problem, such as a mate in three positions, or to play out a variation on any game.

Underpromotion

STEINITZ automatically promotes a pawn to queen when it reaches the eighth rank. If you want to promote a pawn to a lesser piece than a queen, you may perform your move by modifying the board. Remove your pawn on the seventh rank and create the promoted piece on the eighth rank.

Stepping Into A Position

You may also modify the board by keying in moves and pressing the (B/W) key instead of the (ENTER) Key. Steinitz will accept your move, and then switch sides with you, so it is your turn to move again. This technique is useful for practicing opening variations, or for changing the positions when only a few pieces are in the wrong location.

End Game Indicator

This **STEINITZ** cartridge can be played in conjunction with another end game cartridge. **STEINITZ** indicates its readiness to begin endgame play by illuminating the • in the right most digit of the display.

At this time you can insert another endgame cartridge (see **MEMORY** below) or continue playing **STEINITZ's** endgame. Note: Some of **STEINITZ** features may not transfer to another cartridge. Read the manual of your endgame cartridge.

Memory

This feature has a dual purpose. The first is to allow contiguous play of game cartridges. As you are finished play of one cartridge and want to continue play on another, slide the ON/OFF switch to the memory position, remove the first cartridge, insert the second, and then move the ON/OFF switch back to ON.

NOTE: Contiguous play is offered on this **STEINITZ** cartridge. However, it is not offered with all Destiny's game cartridges.

The Memory position feature allows you to interrupt a game in progress for continuation at a later time. Slide the ON/OFF switch to the MEMORY position until you are ready to continue the game. **STEINITZ** does not require that (RANK) be pressed before going into memory. Then slide the ON/OFF switch back to ON and you will be ready to play with **STEINITZ** where you left off.

CAUTION: Power **MUST** be maintained to the game computer at all times during the MEMORY position function. Otherwise this feature will not work. If the unit does not have optional battery pack, then the power/charger must be plugged in.

Watching STEINITZ Compute

While **STEINITZ** is analyzing the board, you can see the move he is contemplating flashing in his display. He will select the best move he has reached when his response time has elapsed. If you wish to stop the contemplated move from flashing, press (DISPLAY).

Display Option

STEINITZ gives you the option of whether or not you want to watch him think. If you should wish to stop the flashing display of his anticipated move, press (DISPLAY) key.

Display will note "DISPLAY OFF" or "DISPLAY ON".

VI. SUPER FEATURES

The (LEVEL) key allows you to get into the Super Features of **STEINITZ**. It acts like a shift key on a typewriter, giving you access to features shown in green on the keyboard.

Score Display

For example, if you want to see how **STEINITZ** is evaluating the current position, you press (LEVEL) key and (SCORE) key. You will note that "SCORE" is written in green on the (BEST) key.

The score shows the value of the position at the end of the expected variation. There are three formats the Score Display will indicate:

SC 1.25

STEINITZ thinks he is winning by 1.25 pawns. Of course the number will vary depending how much **STEINITZ** feels he is ahead. If he thinks he is losing, a minus sign will appear before the numbers.

SC MT 4

A checkmate is expected in 4 plies. When **STEINITZ** is about to checkmate you, the number at the end will be even, and because the score is shown in plies (half moves) it is twice the number shown when **STEINITZ** announces "MATE IN TWO".

SC -MT 5

When you are about to checkmate **STEINITZ**, the number shown on Score Display will be odd with a minus sign in front of "MT".

SC ????

STEINITZ has not analyzed the current position, possibly because his last move was forced, or because the position has been changed since the last analysis. To continue with the game press (ENTER) key.

Look Ahead

STEINITZ gives you the opportunity to look at how he is anticipating the strategy of the game, through this feature.

To activate it first press the (LEVEL) key then the (LOOK) key. You will note that "LOOK" is in green on the (HALT/HINT) key.

The first (LOOK) displays the current move, which is either the move that **STEINITZ** just made (if it is your turn to move) or the best move **STEINITZ** has found so far (if **STEINITZ** is thinking).

A1-E1 +1

The number at the right identifies the number of the ply displayed.

The second time you press [LOOK], **STEINITZ** displays the move that he expects you to make in response to the first move. This move is the same as the hint you would get if you asked for it. The third press of [LOOK] shows what **STEINITZ** expects to do if you make the suggested move, etc. You may back up in your examination of the expected play by pressing the (←) key. **STEINITZ** displays only the first eight plies of what he expects. When you reach the end of **STEINITZ**'s analysis, he displays "END".

Up-to-the-minute Analysis

If you display the Look Ahead or Score while **STEINITZ** is considering his move, you will see a consistent, unchanging display, even if **STEINITZ** finds a better move. To get the latest analysis press the [LEVEL] key again, then press [LOOK] or [SCORE].

Depth Display

The Depth Display tells you how many plies (one ply is one move for one side) **STEINITZ** is looking ahead. This is actually the shortest that **STEINITZ** will look ahead. Some variations will be examined deeper. You may see the DEPTH display three different ways:

1. If it is your turn to move, press the [LEVEL] key and hold it down. The depth displayed is the number of plies **STEINITZ** looked ahead on his last move.

DEPTH 7

2. If **STEINITZ** is contemplating his move, press the [LEVEL] key (displaying the current LEVEL) and release it.
3. If **STEINITZ** is thinking about a mate (Level 0), the depth is automatically flashed on the display.

Timing Parameters (Time Level)

STEINITZ has a new level on which you can set the time parameters for play. This is called the TIME LEVEL. It is pre-set for 40 moves in a first period of play of 60 minutes. The secondary period is set for 20 moves in 30 minutes. (Primary periods and secondary periods are time allotments used in tournament play.)

If you should desire to play at these time levels, merely press [LEVEL] and [TIME], and [ENTER].

If you should desire to change the time parameters, follow the instructions below:

Press [LEVEL] and [TIMING] keys. "FIRST PERIOD MOVES?" will scan across the display. The F MVE 40" will be displayed. Type in the number of moves you wish **STEINITZ** to make in the first period. The display will reflect your entry.

Press [TIMING] again.

"FIRST PERIOD MINUTES?" will scan across ending with "F MIN 60" in the

display. Type in the amount of time you wish the first period to be.

The display will reflect your entry.

Press (TIMING) again.

"REMAINING PERIOD MOVES?" will scan across with "R MVE 20" ending on display.

Type in number of moves you wish **STEINITZ** to make in secondary period. The display will reflect your entry.

Press (TIMING) again.

"REMAINING PERIOD MINUTES?" will scan across with "R MIN 30" left on display.

Type the time you wish the secondary period to be. The display will reflect your entry.

If you are setting up a tournament situation and are beginning in the middle of a game, press (TIMING) again.

"CURRENT MOVE NUMBER?" will scan across with "MV NO 1" left on display.

Type in appropriate move number (If you are beginning in the middle of a game, you will want to reset **STEINITZ**'s clock. See below).

Press (ENTER) to begin game.

You have now set new parameters for the Time Level. Press (LEVEL) (TIME), (ENTER) keys to insure you are on TM level.

Note: If you should tire of scanning messages, press (B/W) key for immediate entry. The (←) key can be used to back up one parameter and the (CE) key to clear and re-enter entries.

Setting the Clock

To set **STEINITZ**'s internal clock for playing out games, picking up in the middle of games, etc., you may follow the instructions below.

Press (TIME). The clock will display hours - minutes - seconds. "00 - 00 - 00"

use (B/W) key to select which clock. Press (CE) to clear clock for changes.

Enter appropriate settings.

Press (B/W) to set other clock, or (ENTER) to set only one clock.

(Note: If you accidentally press (CE) with the clock display on, you may press (REVIEW) and the clocks will not be changed.)

Redisplay of Announcement or Message

To see the last mate announcement again, or **STEINITZ**'s last message to you, press [ENTER] before keying in your move.

Illegal Moves

If **STEINITZ** appears to make an illegal move, you and he have probably read a move differently. During play, be sure to wait for **STEINITZ** to display his responses before you move his pieces; do not try to anticipate him, even on the most obvious move, and second-guessing may cause problems later in the game.

The feedback/move indicator is designed to be viewed from directly in front of it. If you look at the display from an angle, it is possible to misread a board position and move a piece incorrectly. This will result in "ILLEGAL" displayed at a valid later move, because the computer has the pieces at one position and you have them at another.

When illegal move confusion occurs, use the [RANK] key to view **STEINITZ**'s board and restore it to the position before the error occurred. Be sure to leave the hyphen on the correct side before leaving RANK mode. Key in your move if it is your turn, and press [ENTER] or if it is **STEINITZ**'s turn, just press [B/W].

If **STEINITZ** rejects your move as illegal, again be sure you and he do not disagree on the position. Remember **STEINITZ** will not allow you to move your king into check or leave him there. Also, **STEINITZ** will not allow you to move his pieces, so be sure the hyphen is set for your side of the board.

Factory Service

If **STEINITZ** does not perform as described and you are following the instructions, try using a different electrical outlet. Play verification may be made by setting up a position and letting **STEINITZ** play against himself repeatedly by pressing [B/W]. Verify that he makes legal moves for both sides. If a problem is still noted, record the events and moves leading to the problem and contact the factory by mail or phone.

Destiny

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