

DYNACOMP

# **CHESS MASTER**

*NORTH STAR*

## CHESS MASTER\*

(C) DYNACOMP, Webster, N.Y. 14580

### Introduction

CHESS MASTER is a computer program which will challenge your chess playing ability with its aggressive style of play. Written in assembly language for your Z80 or 8080 based North Star Micro Disk System, this program provides you with two display sizes to fit your particular video display or printer. You may choose one of five different playing abilities for your computer opponent. CHESS MASTER also provides for King or Queen-side castling, en passant captures and pawn promotion. An added feature allows you to preset the board in any configuration you may find of interest. This allows for the examination of book situations or the replaying of interesting positions occurring during previous games.

### Loading Instructions

CHESS MASTER is run from DOS using the GO command. Two versions of the program are provided on your diskette; CHESS-SD, configured at 2A00 for single density North Star systems, and CHESS-DD, configured at 2D00 for double density systems. To load, boot up DOS and then type "GO CHESS-SD" or "GO CHESS-DD". CHESS MASTER will then be loaded into RAM and execution will begin.

### Playing Instructions

Program execution begins with an initialization dialogue. You will first be asked what level of play you wish your computer opponent to use. The skill levels available range from 1 to 5 with the following breakdown:

<u>Level</u>	<u>Difficulty</u>	<u>Time Per Move</u>
1	Beginner	Immediate
2	Average	10-30 seconds
3	Intermediate	1-3 minutes
4	Advanced	5-20 minutes
5	Expert	10-40 minutes

The higher the skill level, the more "plys" the program examines and therefore the longer it will take to choose a move. After entering the desired skill level, you will then be asked whether you wish the board display to be large or not ("BIG BOARD?"). The large board requires a display having 24 lines of 64 characters each. If you wish this display, enter a 1. The smaller display

\*Program code (C) 1978 by SOFTWARE SPECIALISTS, Norco, California.

works well on terminals having 10 to 16 lines with 26 or more characters per line. To choose the smaller board, enter a zero.

Your next choice is whether you wish to play the white or black pieces:

"YOUR COLOR: WHITE (8), BLACK (0)?"

To play the white pieces, enter the number 8; to play black, enter a zero.

You will next be asked:

"PRESET BOARD?"

If you wish to preset the board (discussed later), enter a 1, otherwise enter a zero.

If you elected to play black, the computer will make its move before displaying the board. When it is your turn to move, "FROM SQUARE:" will be displayed to the right of the board. Enter the square number you wish to move from (the computer will automatically know which piece is on that square). Next, "TO SQUARE:" will be displayed. In a similar manner, enter the number of the square to which you desire to move. The board squares are specified by the following numbers.

81	82	83	84	85	86	87	88
71	72	73	74	75	76	77	78
61	62	63	64	65	66	67	68
51	52	53	54	55	56	57	58
41	42	43	44	45	46	47	48
31	32	33	34	35	36	37	38
21	22	23	24	25	26	27	28
11	12	13	14	15	16	17	18

If you wish to terminate the game, enter a zero as the square you wish to move from. If you wish to change the "FROM" square after you have entered it, type 99 for the "TO SQUARE:" and "FROM SQUARE:" will be displayed again. If your move is illegal, the computer will ask you for your move again.

All moves are displayed in standard chess notation, (e.g., O1 WH KP - K4). This display tells your: move number, which side, piece moved, and square moved to. Captures are displayed "O5 BL QBN X QP". The "X" denotes a capture and the last symbol denotes which piece was captured. If the move results in putting the opponent in check, "CHECK" will be displayed beside the move.

When either side achieves a checkmate, "CHECKMATE" is displayed beside the move. "STALEMATE" will be displayed if either side cannot make a move without moving into check.

### Special Moves

#### Castling

In order to castle, use the "from" and "to" numbers of the king. The rook will be moved automatically. When castling, the king is always moved two squares (either right or left). The display will show "0-0" for a King-side castling and "0-0-0" for Queen-side castling.

#### En passant captures

Refer to any chess book on the method of en passant capture and when it can be done. To input the move, use the "from" and "to" squares of the attacking pawn. The captured pawn will be removed automatically.

#### Promotion of pawns

When a pawn reaches the opponent's back row it can be promoted to any piece value except a king, regardless of how many other pieces of that value remain on the board. When your pawn reaches the opposite side, "PAWN?" will be displayed. Enter the number of the piece you want: 2=Knight, 3=Bishop, 4=Rook, and 5=Queen. The move will then be displayed using the new piece value.

### Preset Board Sequence

If you chose to preset the board, the computer will display an empty board and "SQUARE:". Enter the square number of a piece to be put on the board. Next, "PIECE:" will be displayed and enter the number of the piece using the following table:

<u>Piece</u>	<u>White</u>	<u>Black</u>
Pawn	1	9
Knight	2	10
Bishop	3	11
Rook	4	12
Queen	5	13
King	6	14

When all of the pieces have been preset, enter a 0 for "SQUARE:". The computer will then ask if the board has been set properly. If yes, enter a 1, if not, enter a 0 and you will be asked which square to change. When the board is properly set up, the computer will then display "MOVE#". Enter the move number of the preset game. If the move number is of no consequence,

enter a 15. This will keep the program out of the opening game logic.

The computer will next ask for white and black castling rights. Input the castling right for each side using the following table:

- 0 - Full rights
- 1 - Disallow Queen side
- 2 - Disallow King side
- 3 - Disallow both sides

The computer will display "WHO MOVES NEXT: WHITE(0) OR BLACK (1)?". Enter the number of the side to move next. The game will then start at the preset position and continue just as in a normal game.

YOUR COLOR: WHITE (S) • BLACK (O)? 0  
 PRESET BOARD? 1  
 SQUARE: 82  
 PIECE=? 10  
 SQUARE: 87  
 PIECE=? 12  
 SQUARE: 71  
 PIECE=? 12  
 SQUARE: 72  
 PIECE=? 9  
 SQUARE: 75  
 PIECE=? 4  
 SQUARE: 62  
 PIECE=? 14  
 SQUARE: 64  
 PIECE=? 2  
 SQUARE: 51  
 PIECE=? 9  
 SQUARE: 55  
 PIECE=? 1  
 SQUARE: 57  
 PIECE=? 9  
 SQUARE: 41  
 PIECE=? 1  
 SQUARE: 42  
 PIECE=? 1  
 SQUARE: 44  
 PIECE=? 9  
 SQUARE: 34  
 PIECE=? 3  
 SQUARE: 23  
 PIECE=? 1  
 SQUARE: 29  
 PIECE=? 1  
 SQUARE: 17  
 PIECE=? 6  
 SQUARE: 0

Example of presetting the board and then playing a mate-in-two problem. Computer plays white.

(North Star version employing the small board option.)

80	-	♦N	-	-	-	-	♦R	-
70	♦R	♦P	-	-	R	-	-	-
60	-	♦K	-	N	-	-	-	-
50	♦P	-	-	-	P	-	♦P	-
40	P	P	-	♦P	-	-	-	-
30	-	-	-	B	-	-	-	-
20	-	-	P	-	-	-	-	P
10	-	-	-	-	-	-	K	-
	1	2	3	4	5	6	7	8

BOARD OK? 1  
 MOVE #? 15  
 WHITE CASTLING RIGHTS? 0  
 BLACK CASTLING RIGHTS? 0  
 WHO MOVES NEXT: WHITE (O) • BLACK (S)? 0  
 16 WH OH - OB4  
 CHECK

80	-	♦N	-	-	-	-	♦R	-
70	♦R	♦P	-	-	R	-	-	-
60	-	♦K	-	-	-	-	-	-
50	♦P	-	-	-	P	-	♦P	-
40	P	P	N	♦P	-	-	-	-
30	-	-	-	B	-	-	-	-
20	-	-	P	-	-	-	-	P
10	-	-	-	-	-	-	K	-
	1	2	3	4	5	6	7	8

FROM SQUARE: 62  
 TO SQUARE: 61  
 16 BL K - OB3  
 17 WH OHP - ONS  
 CHECK  
 ♦♦ CHECKMATE ♦♦

80	-	♦N	-	-	-	-	♦R	-
70	♦P	♦P	-	-	R	-	-	-
60	♦K	-	-	-	-	-	-	-
50	♦P	P	-	-	P	-	♦P	-
40	P	-	N	♦P	-	-	-	-
30	-	-	-	B	-	-	-	-
20	-	-	P	-	-	-	-	P
10	-	-	-	-	-	-	K	-