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Your UNIVERSAL Electronic Chess Board has been especially developed with your easy playing comfort in mind. It is equipped with 81 LEDs (1 LED in each corner of a square) to make it easy to recognize each move. You can play as natural as you like by either sliding the chess pieces across the squares or by picking them up and putting them down on the desired square.

Even TAKE BACK moves are extremely easy to execute by simply moving the chess piece to the former position. The computer will recognize this TAKE BACK move and will show you through its LEDs its own TAKE BACK move.

All moves are further more indicated on the easy to read LCD of the NOVAG Chess Computer.

The UNIVERSAL is a very versatile Electronic Chess Board because it cannot only be played human versus chess computer but also human versus a third party chess software program via a PC.

The included diskette contains the instructions how to play several famous third party chess software programs. NOVAG will endeavor to upgrade these instructions whenever new and popular chess software programs are available on the market.

I. GENERAL DESCRIPTION

Before you start connecting your NOVAG Universal Electronic Chess Board to any input or output unit, please refer to the following DIAGRAM, which illustrates all possible connections.

**Connection possibilities:**

a) Novag Universal Board – Novag Chess Computers (Sapphire, Diamond, Super VIP)
b) Novag Universal Board – Personal Computer

Diagram 1.a.
Diagram 1.b.

Operation connections:

Diagram 2.

**Operation connections:**

Diagram 2.
Note: The UNIVERSAL Electronic Chess Board comes with the following accessories:
1 serial cable : to connect the Chess Board to Novag Chess Computer
1 power cable : power outlet for Novag Chess Computer
1 PC cable : to connect Chess Board to Personal Computer
1 DC 9V adaptor
1 diskette to be used in connection with PC

II. OPERATION WITH A NOVAG CHESS COMPUTER
1. Switch OFF your NOVAG Chess Computer.
2. Connect your NOVAG Chess Computer to the UNIVERSAL Chess Board by the provided serial cable.
3. Connect the NOVAG Adaptor to the Chess Board and then plug it into an AC outlet.
4. Connect the provided power cable to the Chess Board and NOVAG Chess Computer.
5. Switch ON the NOVAG Chess Computer.
   a. The left position = OFF,
   b. The middle position connects the UNIVERSAL Chess Board to a PC computer which requires the use of a third party Chess Software.
   c. The right position connects the UNIVERSAL Chess Board with a NOVAG Chess Computer.
6. Wait about 9 seconds until the self test vertical LEDs scan on the playing board of the UNIVERSAL Chess Board is completed. Now set up the chess pieces in their opening position and start to play your New Game.

You can also play from a given position by first setting up the chess computer and then placing the chess pieces on the playing board of the UNIVERSAL Chess Board accordingly.

III. INSTALLATION OF THE THIRD PARTY PC CHESS SOFTWARE DRIVER PROGRAM
1. Fritz version 1 software
   Copy the files TFRITZ1.EXE from the disk to your hard disk fritz directory.

2. Fritz version 2 software
   Copy the files TFRITZ2.EXE from the disks to your hard disk fritz2 directory.

3. Fritz version 3 software
   Copy the files TFRITZ3.EXE from the disk to your hard disk fritz3 directory.
   (Fritz, Fritz 2 and Fritz 3 are registered trademarks of CHESS BASE LTD.)

4. Mephisto Advantage software
   Copy the files TMEPH.EXE from the disk to your hard disk meph directory.
   (Mephisto ® Advantage is a registered trademark of HEGNER & GLASER, MÜNCHEN.)

5. Genius3 software
   Copy the files TCG3.EXE from the disk to your hard disk genius3 directory.
   (Mephisto ® Chess Genius 3 is a registered copyright of RICHARD LANG.)

6. Rebel7 software
   Copy the files TREBEL7.exe from the disk to your hard disk rebel7 directory.
   (Rebel7 is a registered trademark of E.G.H. SCHRÖDER B.V.)
7. **WChess software**
   Copy the files TWCHESS.EXE from the disk to your hard disk WChess directory.
   *(WChess is a registered trademark of INTELLIGENT HEURISTIC PROGRAMMING INC.)*

**IV. OPERATION WITH THIRD PARTY SOFTWARE**
An individual software program is provided to operate any third party software.

1. Connect the Universal Chess Board to any unused COM1, COM2, COM3 or COM4 of the computer with the provided cable.

2. Connect the Novag adaptor to the Chess Board.
   Change your directory to any PC chess software directory.
   Enter the filename of the appropriate DRIVER and communication port number to load into the computer's memory. *(e.g. TFRITZ2/3)*
   The "/3" means that your Universal Chess Board is connected to the COM3 of the computer.

3. Enter the filename of your PC Chess Software. *(e.g. FRITZ3)*
   When the chess software is ready on play mode, a small symbol will be displayed on the lower right hand corner of the screen to indicate that the Interface Driver is in ready operating mode.

4. Slide the three position switch to the middle position.

5. Wait about 9 seconds until the self test vertical LEDs scan is completed and a small chess board symbol will be displayed on the lower right hand position of the screen to indicate both Universal Chessboard and chess software are interface correctly.

6. Set up the chess pieces according to the piece location of the Chess Software, or place the chess pieces in the board position and start to play a New Game against the Chess Software.

**V. UNLOAD THE INTERFACE DRIVER FROM THE COMPUTER'S MEMORY**
The Universal Interface Driver is a software driver that will monitor every response move from your Universal Chess Board and Chess Software. When you finish your PC chess game, you are required to terminate the Interface Driver and remove it from the PC computer's memory.

When you exit your PC chess game, enter the Interface Driver filename again to de-activate from the computer's memory.

**VI. OPERATING FEATURES**

1. **NEW GAME**
   The Universal Chess Board and the Chess Computer will automatically start a new game when setting up all chess pieces in the opening position.

2. **PLAYING BLACK SIDE FROM A NEW GAME POSITION**
   Set up first the Black pieces at the lower end and the White pieces at the upper end on the Chess Board.
   Lift the Black King up and down this will enable you to play Black and the Computer will play White.
   In that case, please ignore the notation along the chessboard.
3. **TAKE BACK**

Take Back the chess pieces on the chess board will cause the computer to take back the last move. In addition, the board LEDs will also show you the next take back move. Ignore the take back LEDs indication if you want to continue your next move.

4. **FORCE MOVE**

Lifting up and down the non-moving King piece will force the opponent to release the counter move immediately.

5. **PAWN PROMOTION / UNDERPROMOTION**

If one of your pawns reaches the opposite side of the board, the Universal Chess Board will allow you to promote or underpromote it to any desired piece. As soon as this happens the Chess Board will prompt you for the piece that you wish to promote by flashing the Rook, Knight, Bishop and Queen square LED's alternatively. Please make your promoted piece selection by using any chess piece to lift it up or down on the appropriate square.

6. **SOUND ON/OFF**

At new game position, if you lift up and down the left Rook 2 times for each cycle, this will change the sound setting to the following:

1. All sounds ON = This setting is confirmed by 3 beeps (whenever you switch the system on, all sounds will be ON)
2. Only computer move sound ON and Error beep ON = This setting is confirmed by 2 beeps
3. All sounds OFF = This setting is confirmed by 1 long beep

**VII. TECHNICAL DATA**

Computer required: IBM™ PC (or compatible) with serial port

Adapter socket: \( \varnothing 5.5/2.1 \) mm co-axial adaptor socket

Accepts DC9V 300mA center negative adaptor

PC Connector: 1.5m long, 6 pins core cable with DB-25 female type

Chess Computer Connector: 1.5m long 6 pins core cable with telephone type plug

Input/output:

a) Chessboard: 8 x 8 matrix reed switch.

b) LED: 81 LEDs organized as 9 x 9 matrix located at four corner of each square.

Dimension: 37 x 37 x 3.5 cm

Weight: 2.6 kg (chessboard, chesspieces, adaptor and cable)

**VIII. CARE AND MAINTENANCE**

Your Universal Chessboard is a finely crafted wooden board, and should not be subjected to rough handling or exposed to extreme temperatures or moisture. Do not use chemical agents to clean the set, as these may damage the wood.
## IX. TROUBLE SHOOTING GUIDE

<table>
<thead>
<tr>
<th>SYMPTION</th>
<th>POSSIBLE CAUSE</th>
<th>ACTION TO TAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chessboard does not function</td>
<td>The adaptor is defective.</td>
<td>Replace the adaptor.</td>
</tr>
<tr>
<td></td>
<td>The 9V plug is not making proper contact with the DC jack.</td>
<td>Re insert the DC jack into the plug.</td>
</tr>
</tbody>
</table>
|                                               | The chessboard and the computer are not properly linked. | ① Power off the PC and disconnect the adaptor from the chessboard.  
② Reconnect the chessboard cable to the serial port. |
|                                               | Your serial port is a simplified version.           | Use the chessboard only on a PC with a standard serial port.                   |
|                                               | The chessboard is connected to an electronic switching box that is not directly connected to the computer. | Remove the electronic switching box and directly connect the chessboard to the computer. |
| Malfunctioning on 1 or several of the LEDs.   | The cable is not making proper contact with the computer's serial port. | ① Power off the PC and disconnect the adaptor from the chessboard.  
② Reconnect the chessboard cable to the serial port. |
|                                               | The computer stops responding during a game.        | Restart your computer and chessboard.                                          |
|                                               | Total length of cable from your PC to the chessboard is longer than 2.5 meters. | Use a shorter cable to connect to your personal computer. Use only a mechanical and not an electronic switch box. |
| LEDs flash continuously.                      | The computer is performing a self-test.             | Wait approximately 9 seconds.                                                   |
|                                               | Chess pieces are not centered on the squares.       | Ensure that each chess piece is properly centered.                            |