

USER MANUAL ENGLISH

Note: This manual may also be available in other languages at:

www.digitalgametechnology.com



THE CHESS INNOVATORS

MA_ENG_REV2+_User Manual_Rev 1611

© Copyright 2016 Digital Game Technology BV

DGT Hengelosestraat 66 7514 AJ Enschede The Netherlands

www.digitalgametechnology.com

ENGLISH

Introduction	3
Contents of the box.....	4
Handling and Maintenance	4
Quality	4
Modes of usage.....	4
Quick Start	5
General.....	5
Starting up the system	5
Powering down the system.....	5
Moving the pieces	6
LED information	6
Taking back the pieces	7
Auto new game	7
Information and settings.....	7
The display	8
Menu pages.....	9
Basic Options.....	9
Basic option: 'NEW GAME'	9
Basic option: 'SETUP BOARD'	9
Basic option: 'TAKEBACK'	10
Basic option: 'LEVEL'	10
Basic option: 'ANALYZE'	11
Basic option: 'OPTIONS'	11
Extended Options	11
Extended Option: 'SAVE GAME'	11
Extended Option: 'SHOW GAME'	12
Extended Option: 'SAVE CURRENT'	12
Extended Option: 'CHANGE LEVEL'	12
Extended Option: 'ALL MOVES'	13
Extended Option: 'SAVE LEVELS'	13
Extended Option: 'SOUND'	13
Extended Option: 'REVERSE BOARD'	13
Extended Option: 'ENGINE'	14
Extended Option: 'ENGINE SPEED'	14
Extended Option: 'ENGINE OPTIONS'	14
Extended Option: 'EXTRA BOOK'	15
Extended Option: 'SELECT BOOK'	16
Extended Option: 'LANGUAGE'	16
Extended Option: 'SELECT VERSION'	16
Extended Option: 'EXTRA'	16
Extended Option: 'BLUETOOTH STATUS'	17
Extended Option: 'NAME AND SERIAL NUMBER'	17
Revelation UCI Server	17
Introduction to Revelation UCI Server	17
Setting up a Bluetooth connection in Windows 7 or 8.....	19
Revelation II in Bluetooth e-Board modus	24
Use the Revelation II to play against human opponents on the internet.....	24
Installing the driver (RabbitPlugin)	24
Updating the file system of a Revelation II	27
Step 1: Install the Revelation UCI Server software on your Windows computer	27
Step 2: Set the options in the Revelation UCI Server.....	27
Step 3: Connect the Revelation II to the UCI server	27
Warranty conditions.....	29

Specifications	29
Appendix: Retro Emulations software.	30
Introduction	30
Modes of usage.....	30
Starting up the system	30
Powering down the system.....	31
Information and settings.....	31
The graphics display	31
Selecting Emulations	32
Playing Emulations	32
Native vs Emulated Keyboard mode.....	33
Speed Bar	33
Specifications	34

Introduction

Dear DGT Computer Chess Friend,

Congratulations on your purchase of one of the most sophisticated chess computer systems in the world. Revelation II is a state of the art chess computer made in traditional wooden style and designed for your ultimate chess playing experience.

Revelation II is developed and produced by a joint venture of Phoenix Chess Systems and Digital Game Technology in the Netherlands. The wooden board is made in Spain by the famous chess board manufacturer Rechapados Ferrer and is equipped with individual piece recognition and inlaid LED lights to indicate the computer moves.

Multiple super strong commercial and freeware chess engines are included giving you great diversity in computerized chess play at ELO levels up to 2800 and above. Benefit from full warranty service by registering your product at www.digitalgametechnology.com



Revelation II lets you play against the world's strongest chess engines including many World Champions. In addition it has many other features that will greatly enhance your chess playing experience:

- Analyze your games with the aid of famous world class chess engines
- World Champions from the past: Emulate 1980's and 1990's Retro Engines (optional)
- Play against internet opponents on web based internet chess platforms
- Broadcast your own games live via the internet

Thanks for choosing Revelation II. We wish you many challenging and fun filled hours of chess!

Contents of the box

In the box you will find these items:

- The Revelation II chess computer
- A power adapter
- A custom made canvas bag with a protection cloth bag for the board
- A set of 34 electronic DGT chess pieces including two queens for each color
- This Revelation II manual

Handling and Maintenance

To ensure optimal functioning, please keep away from large (plasma) televisions, electrical power devices, electrical signals and metal objects when the system is in operation as it may interfere with the sensor board. If the Revelation II is having problems with the piece recognition, please check that the table does not have a large metallic base or consists of large metallic elements.

Leaving the board and pieces exposed to daylight for longer periods of time may cause discoloration of the board, particularly underneath the pieces. After use please store the board and pieces in the supplied protection cloth bag and preferably in the canvas storage bag as well. The cloth bag protects the Revelation II board itself and protects against the Velcro fasteners to stop them from damaging the side stands and board surface.

We advise to use a clean and dry microfiber cloth to clean Revelation II. Avoid aggressive cleaning solutions and only use cleaning solutions which are suited for lacquered wood surfaces. Cleaning of the metallic front plate and the display should be done with cleaning solutions designed for television screens or laptop screens.

Quality

This unique product is made from different materials all specifically selected to obtain the highest quality. The board and side stands are (partially) handmade from natural wood or veneer and may show small imperfections. The wooden chess pieces are handmade and may slightly differ in model from advertised images and can also contain small imperfections. These imperfections are part of the material handling and manufacturing process and as such cannot be avoided completely.

Modes of usage

The Revelation II is a versatile chess product and has some different usages:

1. **Normal usage:** The Revelation II starts up in normal play mode. In this mode you can play against engines that are standard included in the Revelation II. This is also the strongest playing mode as the native onboard engines can reach high ELO levels up to 2800.
2. **DGT Bluetooth e-Board usage:** The Revelation II starts up in a mode where the Revelation II behaves like a DGT Bluetooth e-Board. For this usage you should install the drivers on your Windows PC. This mode starts after holding ▲ just before the right LED below square H1 lights up until the system is completely started.
3. **Emulation mode:** If you have acquired this additional feature you can play against emulations of the world championship winners during the 80's and 90's of the past century. This mode starts after holding ▼ just before the right below square H1 lights up until the system is completely started.

Quick Start

General

Making moves on Revelation II is done by moving the chess pieces on the sensor board. The LEDs indicate the move made by the computer by lighting up squares. To operate Revelation II there are 6 keys. With the menu system on the display you can control all functions of Revelation II with the 6 keys. Revelation II has a permanent memory that can save most user data even if the system is switched off. Different sounds can indicate different events. The sound can also be switched on or off.

Revelation II is supplied with a customized canvas bag to store Revelation II, the chess pieces and the power supply. A cloth bag is included for extra protection of the Revelation II itself.

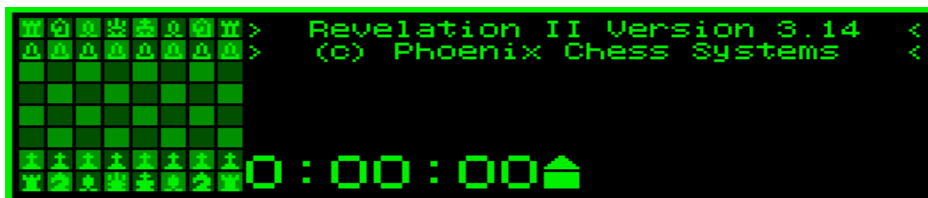
Starting up the system

Power is provided by a regulated 12 Volts power adapter. It is strongly recommended to only use the provided adapter. For power outlets that are used in other countries there is a pin converter present. The adapter accepts mains voltages from 110 – 240 Volts. Revelation II will start up automatically when the power connector is inserted. The system shows all 81 LEDs very brief in sequence as a test and will then show the Revelation II splash screen.



Revelation II then will show the lower line of LEDs to indicate different stages of starting. The LED right below square h1 indicates that the system has started in a correct manner.

Revelation II will then show you the starting screen for game playing.



Note: The version number may be different after an update of the software.

After placing the chess pieces in the starting position, as indicated on the miniature board in the display, you can immediately make your first move and start playing.

Powering down the system

You can switch off Revelation II by pressing **CLEAR** and **ENTER** simultaneously holding these two keys for 2 - 3 seconds after which the system will shut down to standby. The display is dimmed and the LED left below square A1 indicates that the system has shut down.

Revelation II will start up again from this situation if you press and hold **ENTER** during 1 -2 seconds. If you press **CLEAR** and **ENTER** during 2 seconds and the LED in the bottom left corner is the only one that lights up, then you can safely disconnect the power connector.

Moving the pieces

The board contains the DGT piece recognition technology. This means that the Revelation II 'knows' which piece is on which square.

LED information

The LEDs can make different patterns around one or more squares. The table below explains the various patterns:

4 corners of a square flashing quickly.	A piece is expected on this square. Move or place the correct piece to that square. The display will indicate which piece should be placed.
4 corners of 2 squares flashing quickly.	The piece that is standing on one of the flashing squares should be moved to the other flashing square.
2 occupied squares flash but one quicker than the other.	The piece on the slower flashing square is captured by the other.
2 Opposite corners of a square flash alternating in a cross like pattern.	A piece is occupying this square but a piece of an incorrect nature is placed.

If sound is enabled you can hear the following sound patterns:

short beep	The computer makes a move.
short beep	The user plays a legal move.
short double beep like "di-dah"	The users plays an illegal move.
short double beep like "dah-di"	The user plays the expected move.

It is not required that you actually move the piece of the opponent before making your next move. You can move the pieces of the opponent at any moment that is convenient to you. The lights on the board will keep blinking until all pieces are on their expected (destination) squares. You may check this by comparing the actual position on the board with the position on the display. Of course you can only make your next move after the opponent has decided which move to make. In other words you cannot play more than one move at the time.

To become acquainted with the Revelation II chess computer you can play some games without changing any settings. The standard engine is chosen and the computer will use 15 seconds average thinking time per move.

Please take care when placing the pieces accurately on the squares. The sensor board may not recognize a piece if it is partly outside a square. If an illegal move is played, Revelation II will not execute the move but will show the fast LED pattern to indicate the move should be taken back.

Capturing pieces can be performed in different ways. It is advised to first remove the piece you are capturing and then perform your move. If Revelation II captures one of your pieces you can use the same method. If handling of the pieces is done in the wrong sequence or too fast for Revelation II to 'understand' what the player is intending, then place all the pieces as indicated in the display. From this position you can continue your game.

Remember that the display shows the position that the engine has calculated. If you did not move all pieces correctly there may be differences between the position in the display and the position on the actual board. If you see LED patterns that you cannot explain, please match the real board with the internal board as shown in the display.

Taking back the pieces

Revelation II allows you to take back moves, but *only after the computer has made its move*. First await the computers move. Then place the piece that the computer wants to move on the destination square. Then put it back on its source square. The display will then indicate **TAKEBACK Active**. This picture below shows that Nc3 can be taken back to b1:



The LEDs in the board will now indicate your last move. You can then put your piece on the original square. Next the LEDs will indicate the previous move made by the computer that you can then take back and so on.

The last piece you take back should be your own. Then press the **CLEAR** button. The display will show **“TAKEBACK Not Active”** and you can play your next move.

If you decide not to take back your own move as the last action, then you should press **ENTER** to indicate that the computer should make the next move. You can also activate **TAKE BACK** in the menu structure, see “Basic option: ‘TAKEBACK’” on page 10 for more detail.

Auto new game

When you place all the pieces in the initial position, Revelation II will assume you want to start a new game and you can play white. When you place the black pieces and white pieces in reverse position, Revelation II will assume you want to start a new game in reverse position. You can then play with black.

Please be advised that when you build this position from specific positions, you can inadvertently go into take back modus. For example if the game was e2e4 and e7e5 and you place back the pawn on e5 to e7 and then e4 to e2, the system will be in take back mode. You have to press the **CLEAR** button to leave this mode. The system then will perform the auto new game function.

Information and settings

There are 6 keys on the front panel. From left to right they are called **CLEAR**, **▲**, **▼**, **◀**, **▶** and **ENTER**. Same key notation will be used in this manual.



The keys react after 0.1 second. Do not push and release them too quickly. If you press and hold one of the keys, you will get a repeating function. After holding a key for 3 seconds the rate of repeat will increase.

The ▲ and ▼ keys will select another menu item.

In general ► is for a “Yes” or “True” and ◀ is for a “No” or a “False”.

The ◀ and ► keys are not circular. When you see “True” or “Yes” you can only use ◀ to change the option into “No” or “False”.

In playing modus with the information screen visible (the last move is shown), you can force the computer to start calculating the next move for the side whose turn it is to play. This means that the computer also can calculate the next move for the human player. This is done by pressing the **ENTER** button once. When you press **ENTER** again the best move, calculated until then, will be indicated. When the computer is calculating its next move, you can press **ENTER** to force the Revelation II to move immediately. It will play the move that is evaluated as the best at that moment. When you press **ENTER** in the thinking time of the human player the sides will be swapped.

The display

The left side of the display shows a chess board with the position of the pieces that is used by the computers chess engine. When the physical chess pieces are not moved correctly the position on the display may not be the same as the position on the Revelation II board. Blinking LEDs on the board will indicate the differences.

In the display the solid light chess pieces represent the white chess pieces on the board and the open darker pieces in the display represent the black pieces on the board.

The first two top lines on the display present general information. In below picture the first line indicates the move by the computer. The second line shows a hint for the player. You can switch off this hint information if you wish. (See Extended Option: ‘ENGINE OPTIONS’)

Lines 3, 4 and 5 give information about the engine in 2 blocks (see segments circled in yellow). The left block shows the current variation under investigation. In brackets is shown the expected move by the human player (d2d3) followed by the moves calculated by the computer.



In the right hand block the best move for the current evaluation is shown (calculation in progress). In this example the computer calculates the evaluation is 0.40 (1 pawn equivalent = 1.00). This means the computer values the position favorable for the human. A negative value means a disadvantage for the computer.

The next line of the right block shows the move that is now under investigation (e8g8) and that this is the first move investigated in depth 11. The number 11 is the depth in half plies which were completely investigated. The number 30 indicates that the engine has also searched 30 half plies deep for specific positions (mostly capturing variations).

The 3rd line of the right hand block shows the total number of evaluated variations / nodes per seconds and also the evaluated variations / nodes from the actual move. If a K is added, it means that the number is in multiples of 1,000 nodes. So 2370K means 2 million 370 thousand positions have been searched in total. Same applies to M for multiples of 1,000,000 nodes. The smaller number 0119K signifies the average number of investigated positions per second was 119000 variations. You can hide the information about the engine by pressing ◀ or ▶. The display does not show relevant thinking information. You can play without seeing what the computer is currently calculating.

The large digits at the bottom of the display show the elapsed thinking time for the player with the white pieces on the left and the elapsed thinking time for the player with the black pieces on the right. These digits will always count up.

Menu pages

Revelation II has a circular menu which is divided in two parts / levels. The first menu pages are the basic options. They are used most frequently. By enabling **Options** you can extend to all menu pages and will enable you to set extend options as well.

By default the extended options are NOT enabled. You can enable them by using the last Basic Option: **"OPTIONS"** and set this to **"Yes"**.

With ▲ and ▼ you can jump through the menu pages where you can use the basic options and, if enabled, the extended options. In effect the first menu page is the information display itself so if you walk through the options with ▲ or ▼. At the end you will again arrive at the information display.

Basic Options

Basic option: 'NEW GAME'



By pressing **ENTER** in this menu you will force a new game. The board on the display will show the (normal) starting position. You have to set up your pieces in accordance with situation in the display. Pressing **CLEAR** will take you back to the playing mode of the current game.

Basic option: 'SETUP BOARD'



In this mode you can setup a new position on the board with the pieces. After pressing the **ENTER** button, Revelation II will scan the board and the board will recognize the position and nature of the pieces.

Important: The color of the piece that is last recognized by the board is the color that must make the first move after leaving setup. Because in most cases the last piece that is recognized is a black piece. You have to lift a white piece and put it back before you press **CLEAR**. The display will show the name of the last piece that is lifted, and will light up all squares that have an identical piece on it. If done correctly you can make the first move with white.

When **CLEAR** is pressed the system will show the position on the display, you will be back in playing mode and you can start playing. By default the white pieces move from the bottom to the top. You can change this with the '**REVERSE BOARD**' command that is described in this manual on page13.

If you press **ENTER** you can indicate that the setup is reverse. This means black plays from the bottom rows.



Basic option: 'TAKEBACK'



Take back will be automatically activated when you take back the last move. Please see the section "Taking back the pieces" on page 7 for details of this function. After you returned to the desired position you have to press **CLEAR** before playing your next move. If the last take back was your move then you can play a new move after you pressed **CLEAR**. It is unlikely that the last move that you took back was a move made by the computer, but if it is the computers turn to move after you pressed **CLEAR**, you have to press **ENTER** next to instruct the computer to move.

Basic option: 'LEVEL'

The second line shows the thinking time for the computer. With the ◀ or ▶ button you can select one of the 64 playing levels. With the **CLEAR** button you can jump over 8 levels at the time.

If you want to play again on the same level after switching off Revelation II, you should go to the **SAVE LEVEL** extra option, see '**SAVE LEVELS**'.



1 sec/move (avg)	Average thinking time for the computer of 1 second.
	All options in this method are: 1,2,3, 5, 10, 15, 20, 30,45, 60, 90, 120, 180, 300, 600 and 900 sec.
1 sec/move	Exact thinking time for the computer of 1 second.
	All options in this method are: 1,2,3, 5, 10, 15, 20, 30, 45, 60, 90, 120, 180, 300, 600 and 900 sec.
40 moves/90min	40 moves in 90 minutes. Next time control(s) will have the same value.
	All options for this method are: 40/90, 35/105, 40/105, 35/90, 40/120, 45/150, 50/120, 10/1
5min/all	All moves in 5 minutes.
	All options for this method are: 5, 10, 15, 20, 30, 45, 60, and 90. By default all moves is set to 60 moves but this number can be changed on another menu page.
1 ply (half move)	Calculate max 1 ply.
	All options in this method are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 ply

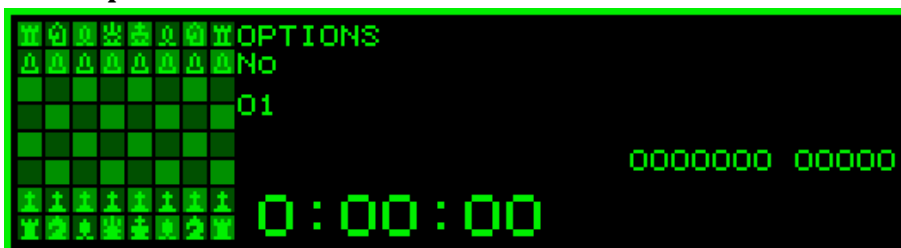
Basic option: 'ANALYZE'



With ◀ and ▶ you can activate or deactivate this function. In analyze mode, Revelation II will only calculate but it will not move. You can make all moves for both sides yourself.

Important: Remember that when you are in Analyze option some of the menu functions will not work. For example you cannot change the engine when you are in Analyze mode. Please leave this mode before changing the engine.

Basic option: 'OPTIONS'



To make it easier to go to the main menu pages. Other pages can be switched off. When **OPTIONS** is set to "Yes" then extra menu pages with options are displayed after pressing ▼.

Extended Options

Extended Option: 'SAVE GAME'



When you press **ENTER** the current game will be saved. You will see an identification number of the saved game.

Extended Option: 'SHOW GAME'



When you press **ENTER** then you will see a game number on the second line. You can scroll through the saved games with the ◀ and ▶ buttons. The most recent game will be shown first. To see previous games press the ◀ button. Using the **ENTER** button you can select the game you wish to 'replay'. By now using ◀ and ▶ you can 'walk' through the game.

Extended Option: 'SAVE CURRENT'



If you want to switch off Revelation II, you can save the current position by pressing **ENTER** in this option. You can reload this position at a later time, even if you have disconnected the power.

After restarting Revelation II you can scroll to this option with the ▼ button.

When you push ▶, you will see the choice '**LOAD CURRENT**'. Press **ENTER** at this time to load the position. Press **CLEAR** to go to playing mode. If you (re)moved the chess pieces since the last game, you have to replace them in the position of the internal board as shown on the left side of the display. Please note that the current position will not be saved when you press **CLEAR** and **ENTER** during 2 seconds to switch the system off.

Extended Option: 'CHANGE LEVEL'



This function allows the user to edit the levels. With ◀ or ▶ you can choose one of the 64 levels you want to use. With **CLEAR** you can jump 8 levels at once. When you press **ENTER** you can change the specific number of seconds or number of moves for a level. When you leave with **CLEAR** the default level will keep its values.

Extended Option: 'ALL MOVES'



In setting the level, there is the option to use levels with a certain amount of time for “All moves”. These levels limit the amount of time for the entire game. The engine cannot know on forehand the total number of moves in the entire game and this number has to be set by the user. The default setting is ALL MOVES = 60 and the computer will divide its available thinking time over these 60 moves. Of course the game can take more moves or fewer moves. You can change the value of **ALL MOVES** here.

Extended Option: 'SAVE LEVELS'



With **ENTER** you can permanently save the changed levels. You can even switch off Revelation II and the levels will be maintained. This function also saves the current selected level, so that the next time when you switch on Revelation II, it will be on the level you have selected in '**LEVEL**'.

Extended Option: 'SOUND'



With ◀ and ▶ you can activate or deactivate sound. There is only one sound type available.

Extended Option: 'REVERSE BOARD'



With ◀ and ▶ you can select whether normal or reverse play is active. When **REVERSE BOARD** is set to “Yes”, then the black chess figures are on the bottom side of the front panel. Press **CLEAR** to return to playing mode. You will see on the display, that the black and white pieces have changed their positions.

If you want Revelation II to play with white, and have it make the first move, you should press **ENTER** once after setting up the pieces. This is also true when you have the **REVERSE BOARD** option set to “No”

Extended Option: 'ENGINE'



With ◀ and ▶ you can select an engine and with **ENTER** you can activate this engine. **CLEAR** will return to the playing mode.

In the example below the example shows that the engine Toga 1.0 has been switched to Rybka 2.2. You cannot do this during a game. Changing the engine starts a new game. If you would like to change the engine during a game, you should leave the pieces on the board as they are after pressing **CLEAR** next to changing the engine. Then press ▼ 2 times to come in the **SETUP BOARD** menu. Press **ENTER** and lift a piece of the color that should make the first move, and then press **CLEAR**. You can resume your game then with a different Engine.



Extended Option: 'ENGINE SPEED'

You can indicate to the Revelation II to use a percentage of its processing power. It can be set at 100%, 50%, 25%, 20%, 10%, 5%, 4%, 2% and 1%. At 50% it will have 1/2 of the processing power for the engine available. At 4% only 1/25 of the processing power will be used.

Important: Please be advised that this option does not or partially work for the engines Rybka and Baron. Please do not lower the engine speed for these engines lower than 25%.



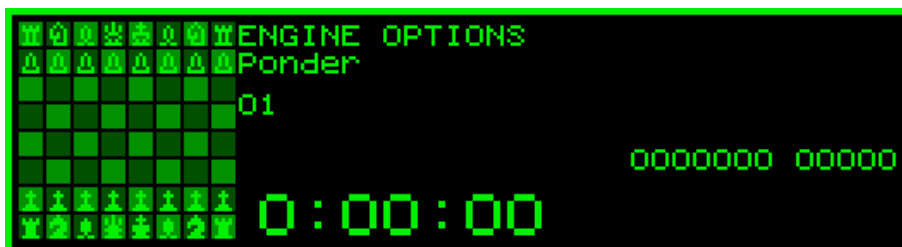
Extended Option: 'ENGINE OPTIONS'

Every chess engine has its own set of options. The list of possible choices differs with each engine that is chosen in the previous page. For more information about the effect of all options you should consult the documentation of the chosen engine.

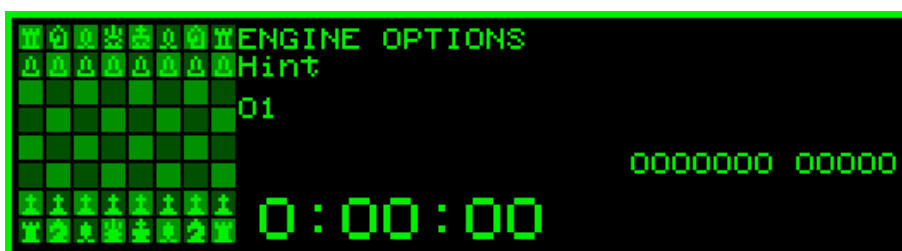
With ◀ and ▶ you can select an engine option and with **ENTER** you can activate the browse list for options. **CLEAR** will return to the Playing mode.

With ◀ and ▶ you can browse through the options and with **CLEAR** you will return to previous list.

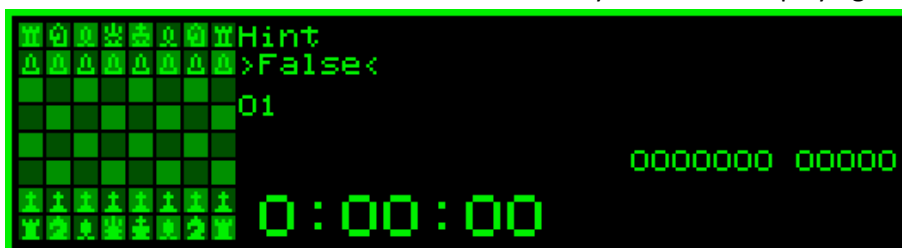
When you press **ENTER** you will see the current value between > and <. Also the possible values are given. With ◀ and ▶ you can change the current value and with **ENTER** you can confirm this. A **CLEAR** here returns you to the browse list.



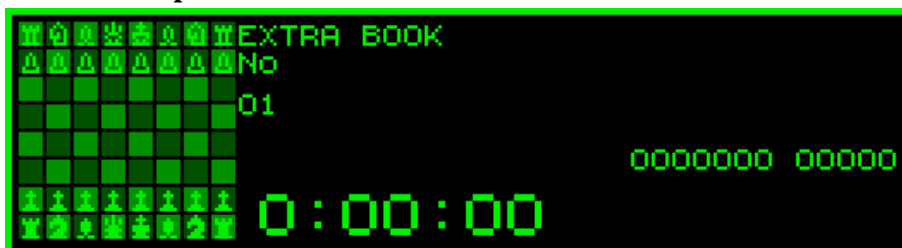
Special: If you change HINT to '**NO**' you will receive no hints. PONDER indicates whether the computer will think during your time to move. This example in the next picture shows the **HINT** option.



ENTER is pressed and the word **HINT** is shown on the first line and the present value is shown on the second line. When you press **ENTER** again, you can change the value. For **HINT** you can only choose between **>True<** and **>False<**. When the desired value is visible press **ENTER** again to confirm. Then you can choose other options with **◀, ▶** or press **CLEAR** twice to go back to playing mode. You will not be able to choose other extra Functions until you are back in playing mode.



Extended Option: 'EXTRA BOOK'



With **◀** and **▶** you can activate or deactivate **EXTRA BOOK**.

Some engines for example Rybka do not have a built-in opening book. Other engines play with their own book. On introducing Rybka, this function is also introduced. When **EXTRA BOOK** is set to **NO**, the engine plays the internal book, except for Rybka. Rybka will now play from the start without a book.

When **EXTRA BOOK** is set to **YES**, the selected book in Extended Option: '**SELECT BOOK**' will be used for all engines.

Please be advised that if the extra book is set to '**Yes**', then Revelation II will first play from the extra book. If this book does not have any more book moves it can continue to the engine book if

available. Book moves from the extra book are indicated as a book move while playing. It even gives you a percentage between parentheses like for example: (88), indicating that in 88% of the cases this is the best book move.

Extended Option: 'SELECT BOOK'



After pressing **ENTER** once you can select with ◀ and ▶ the specific **EXTRA BOOK** that you want to use. Press **ENTER** again to select the chosen book in the display. Revelation II will then return to playing mode.

Extended Option: 'LANGUAGE'



With ◀ and ▶ you can select the used language. **CLEAR** will return to the info line.

Extended Option: 'SELECT VERSION'



This menu item lets you select the specific version for the firmware you are using. The Revelation II can contain multiple versions when you have installed newer firmware. Under normal conditions you do not need to use this function.

You can select versions by first pressing **ENTER**, and then select by using ◀ or ▶. Normally you will use the latest firmware version. When you have selected with ◀ and ▶, **ENTER** will install this latest version. The new version will be used on the next start of your Revelation II.

Important: After the 'Selected' message has appeared please ensure to wait for 30 seconds before shutting down. Reinstalling firmware could lead to problems if Revelation II is shut down too soon.

Extended Option: 'EXTRA'



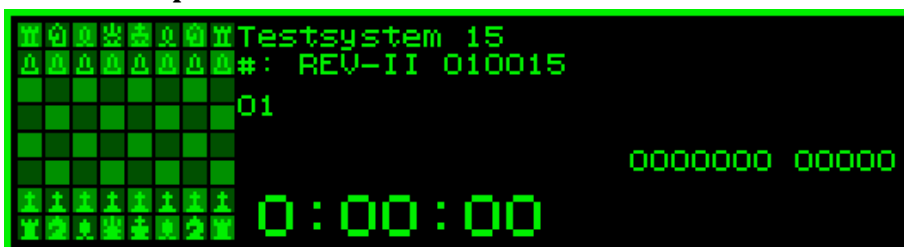
After pressing **ENTER**, Revelation II will perform a special task. This function is needed for special software updates. Under normal user conditions you do not need this function.

Extended Option: 'BLUETOOTH STATUS'



With ◀ and ▶ you can select the desired function and with **ENTER** you can execute this function. Under normal conditions this is not necessary, but if the Bluetooth module or link keeps failing this should solve problems related to Bluetooth. You can try the reset function or even the initialize function by pressing **ENTER** at these functions.

Extended Option: 'NAME AND SERIAL NUMBER'



In this function Revelation II will report the name and serial number of the system.

Use the serial number to register your Revelation II on www.digitalgametechnology.com for warranty purposes and future firmware updates.

Revelation UCI Server

Introduction to Revelation UCI Server



Revelation UCI Server

The main feature of Revelation UCI Server is to use a remote engine in Revelation II. The engine runs on a PC and communicates with Revelation II through a Bluetooth link.

Only engines that support the Universal Chess Interface Protocol can be used here. Most engines support this protocol. Please check the engine information for details.

In addition, the Revelation UCI Server takes advantage of this connection between Revelation II and a PC to offer two more features:

- Transfer of files from the PC to the Revelation II. For example software updates or other system files.
- Transfer of files from the Revelation II to the PC. This is typically for games which can then be reviewed and analyzed on the PC. (This option is not yet functional)

You will find detailed information about the UCI server in the help menu of the program.

To let Revelation II communicate with the UCI server you need to first setup a Bluetooth connection which will result in a virtual COM Port. See the section "Setting up a Bluetooth connection in Windows 7 en 8" on page **Fout! Bladwijzer niet gedefinieerd.** for instructions.

When minimizing the program icon, it will not be visible in the Windows taskbar but in the system tray. You can open the interface by double clicking this icon.



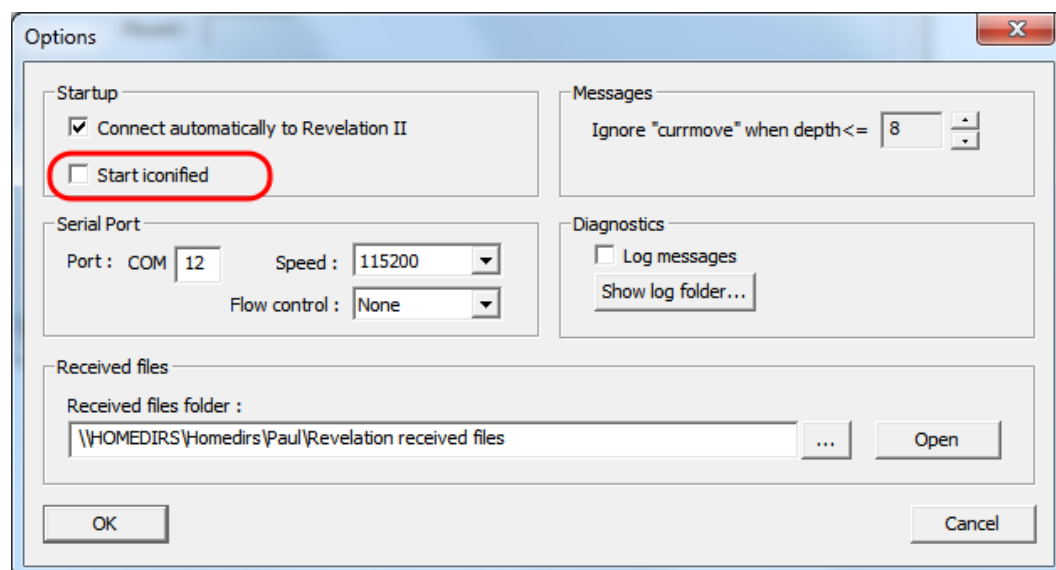
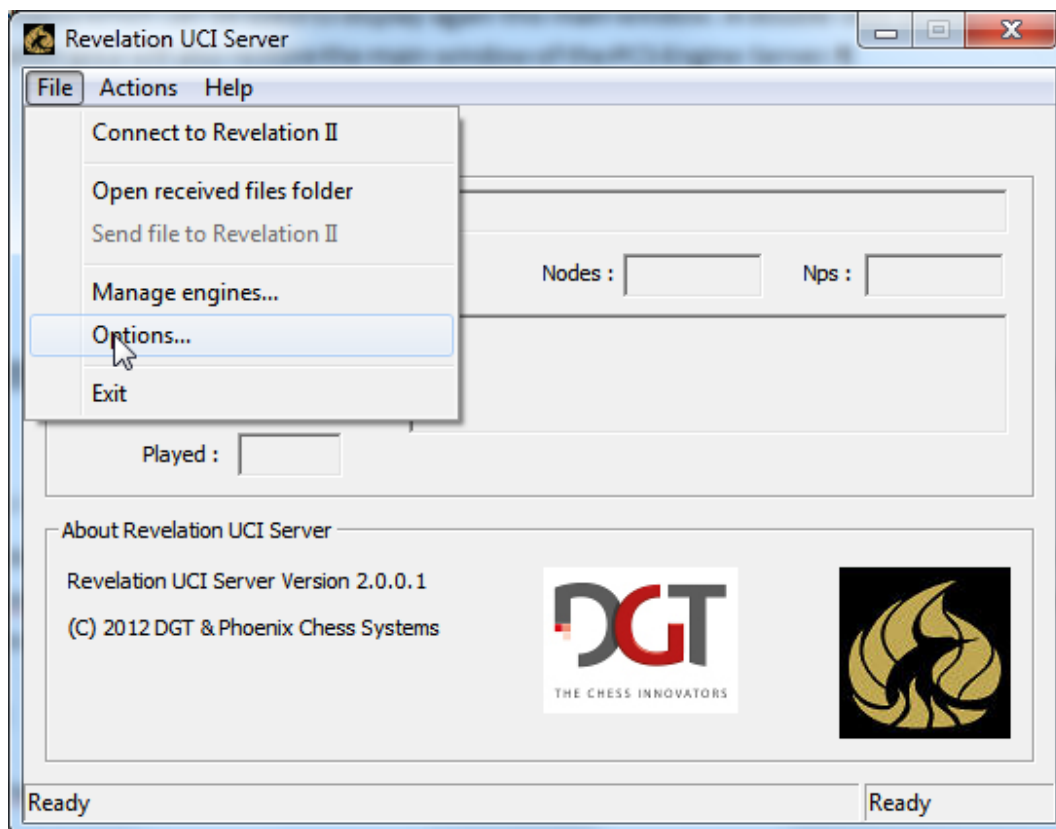
Using the Bluetooth connection means that Revelation II and the PC do not have to be linked physically though a secure and stable Bluetooth connection. They should not be placed too far away from each other. This way the Revelation II chess engine can benefit from the calculating power of the external computer.

This section explains how to setup the connection between the Revelation II and a PC and how to use the PCS Engine Server.

Remember that, if you have added engines for use under “manage engines”, you can select them as a regular engine in the Revelation II itself. Giving a good name is important to distinguish it from the native engines in the Revelation II. For example if you have the engine Fruit 3.0 on your PC, name it "PC Fruit 3.0". You will see this engine after a successful connect to the Revelation II and it will not conflict with the engine names already build in.

As from version 3.10, the “Get PGN” action is implemented. It will upload a file containing the PGN data for the current game.

Important: Please be advised that in certain circumstances this mode will fail during game play. This is because the Bluetooth link fails at certain times from Windows to the Revelation II. We are developing a work around for this. In the mean time we advise to use Revelation II in Bluetooth e-Board modus in combination with a chess program instead of an external engine in the UCI Server. This is not a failure in the Revelation II, however a problem in the failures arising in Bluetooth connections.



In the serial Port section please enter the COM port number that belongs to the Bluetooth connection. For more information about this program please consult the help section of the program.

Setting up a Bluetooth connection in Windows 7 or 8

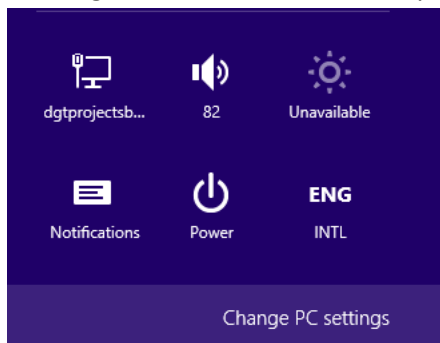
For use with the UCI server, or if you want to use Revelation II as an input device for chess programs on a Windows PC, you need an active Bluetooth connection. (Called Bluetooth Pairing)

If you haven't already installed a Bluetooth dongle (Bluetooth USB stick) or if you do not have a built in Bluetooth radio in your computer, you need to insert a Bluetooth stick first in a free USB port of your computer.

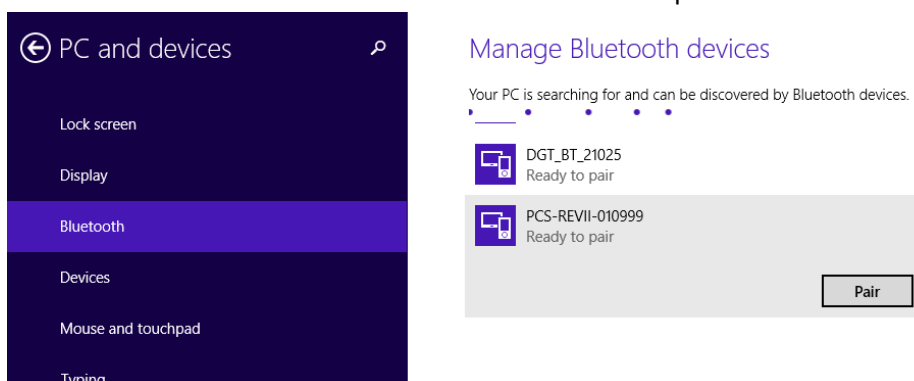
All Windows versions as from Windows XP will normally recognize the device. Please do not install the software that came with your Bluetooth dongle. The built in Windows software performs better with the DGT products.

Windows 8

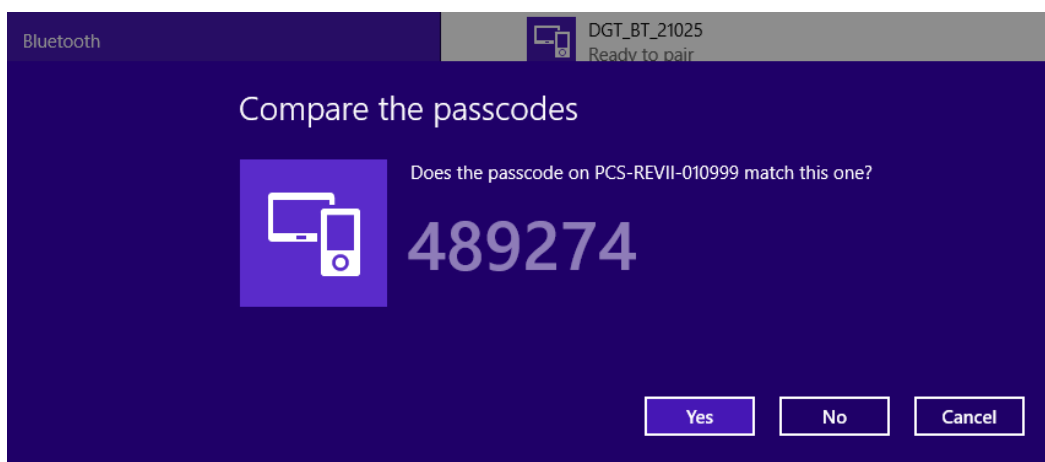
In Windows 8 you can use the Charms menu on the right side of the Tile Start interface and Choose “Settings”. From this list click or tap on “**Change PC Settings**”



Then choose “**Bluetooth**” A list of available devices will be shown on the right. Select the item whose name starts with PCS-REVII- and press the “**Pair**” button.

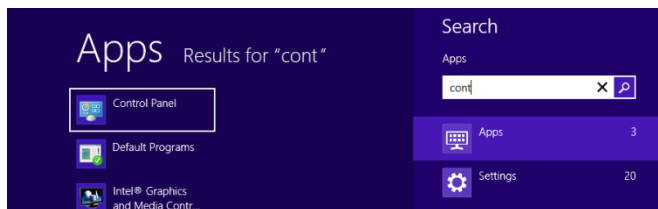


You will be presented by a dialog in which you have to fill in a pairing code, which is “**1234**” or a 6 digit number will be shown. Just press the “**Yes**” button then.



After a short while a list will be shown with the devices found. Please ensure your Revelation II is switched on and close to the PC so it can be recognized.

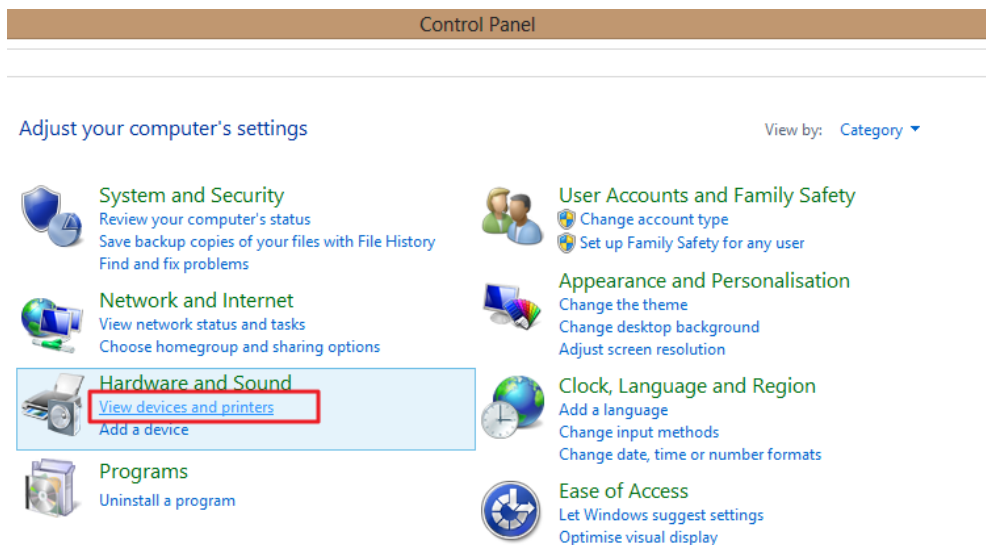
For users who are used to the Windows 7 Desktop interface it is recommended to open the Control Panel by just typing the word in the Tile interface and then click or tap on the icon.



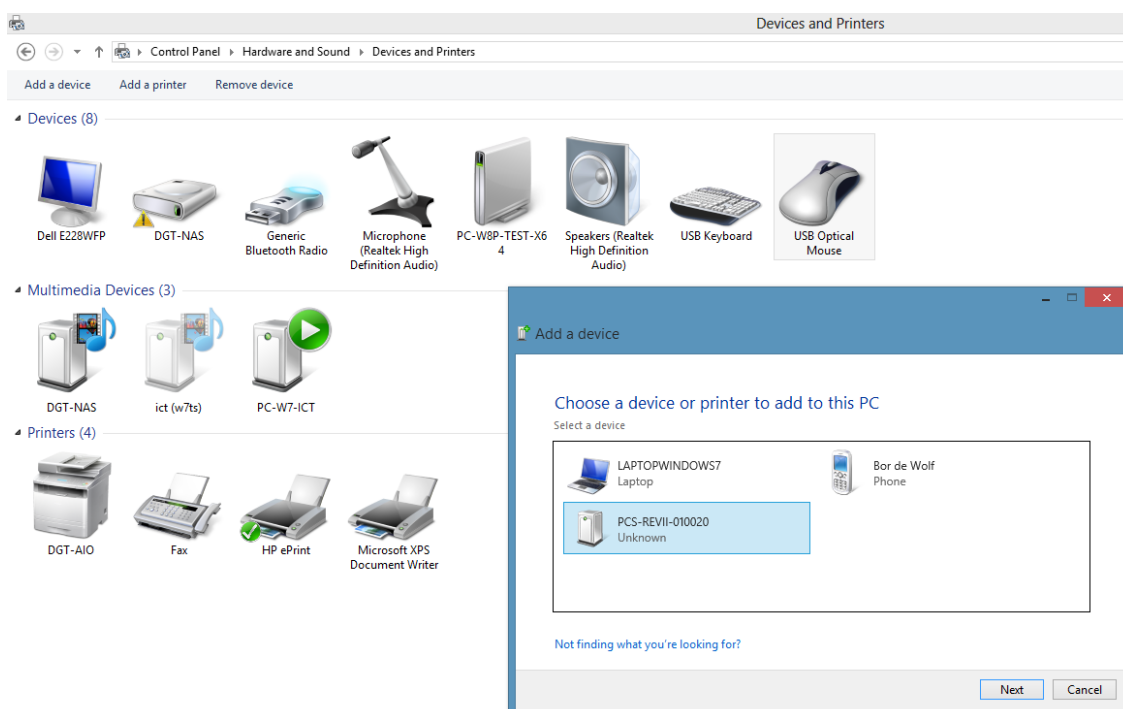
From this moment the procedure is similar as in Windows 7. See below section.

Windows 7

Be sure your Bluetooth USB dongle is inserted or your built in Bluetooth functionality is active and your Revelation II is switched on. Then open the control panel and choose **“View devices and printers”**

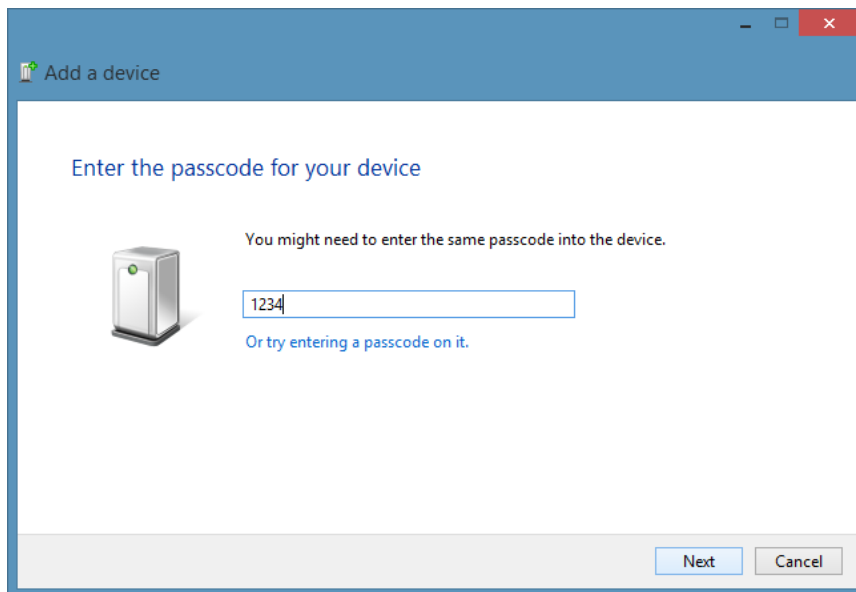


Click on the **“Add a device”** button’. Windows will show all the Bluetooth devices within range:

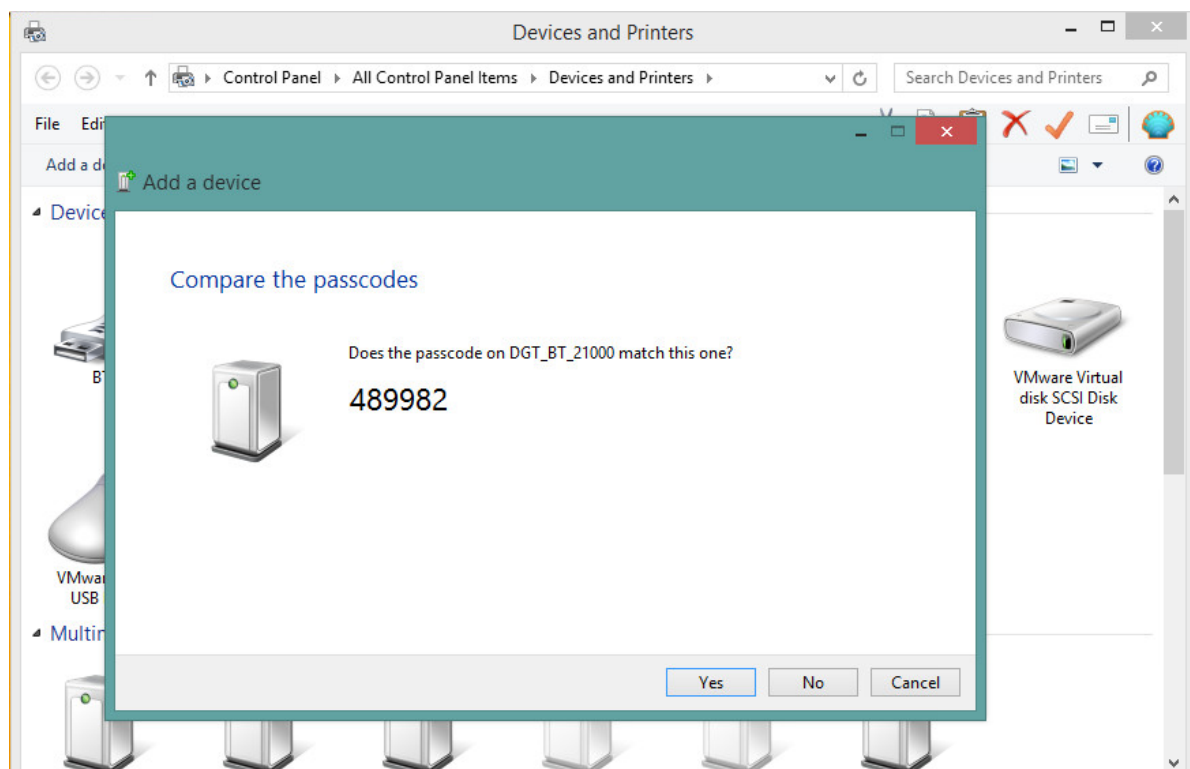


Click on the **PCS-REVII-011XXX**. The X's represent the serial number of your Revelation II. Then click on the **"Next"** button.

Windows 7 may show some options first. Choose the 2nd option: **Enter the device's pairing code**. The passcode of a Revelation II is **"1234"** without the quotation marks



With a modern Bluetooth adapter you may get a pairing code presented to you. Just use this code and click the **"Yes"** button to proceed pairing.

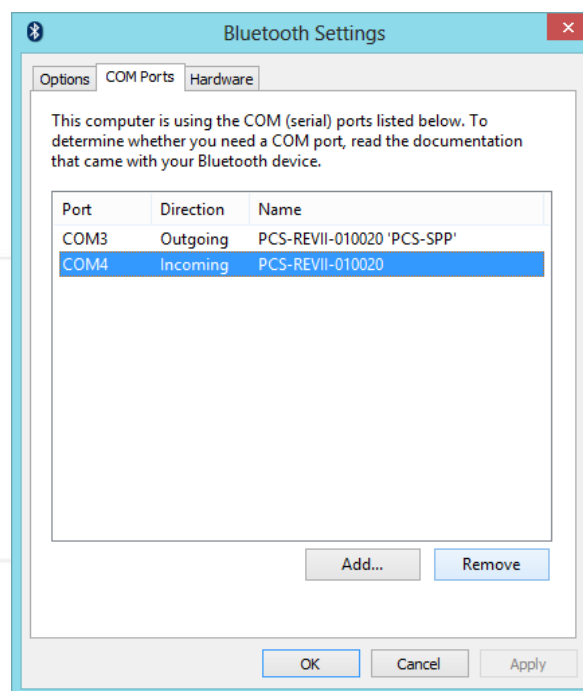
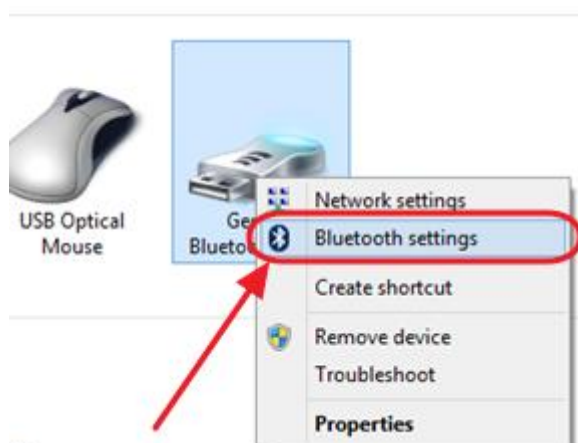


Important: Windows will create 2 Virtual COM ports of which you only need 1.

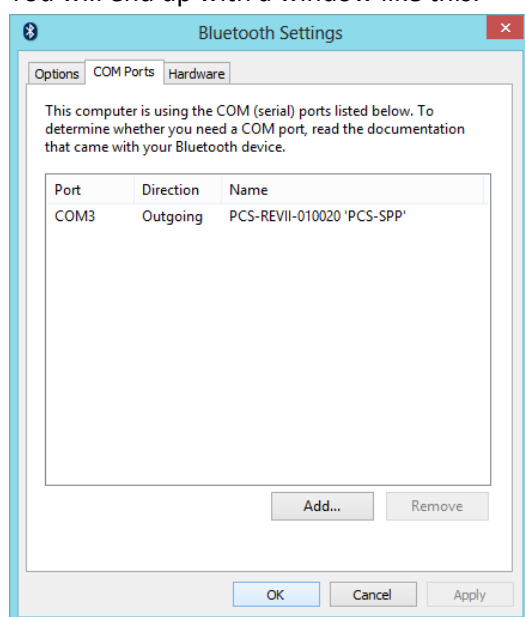
It is strongly recommended to remove the incoming port like this:

- Right-click on the Bluetooth device in the **"Devices and printers"** window that is still open.

- Choose Bluetooth settings
- Choose the COM ports Tab
- Remove the incoming port. (the COM port numbers may be different on your computer)



You will end up with a window like this:



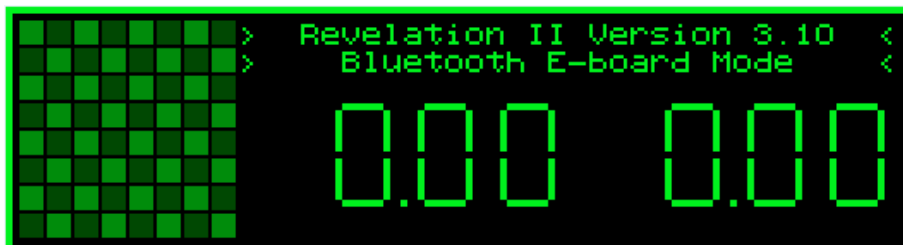
Close all windows and **remember the COM port number** for use with the UCI server and the driver called Rabbit Plugin that can connect the Revelation II to a variety of Windows Chess programs and chess servers to play against opponent via the internet.

For newer versions of the software please visit www.digitalgametechnology.com under the **"SUPPORT"** tab in the menu **"DGT SOFTWARE"**. There is also a Frequently Asked Questions (FAQ) section on this site. Please refer to the FAQ section if you encounter a problem or have a question. For questions that cannot be answered with the aid of the FAQ section please send your question, including serial number and software version of the Revelation II to: support@dgt.nl.

Revelation II in Bluetooth e-Board modus

Use the Revelation II to play against human opponents on the internet

DGT Bluetooth e-Board usage: The Revelation II starts up in a mode where the Revelation II behaves like a regular DGT Bluetooth e-Board. For this usage you should install the drivers on a PC running Windows (Version 7 or 8) as Operating System. This mode starts after holding ▲ just before the right below square H1 lights up until the system is completely started.



It is possible to use the Revelation II as an input device for several chess programs like Fritz, Aquarium, Dasher, BabasChess etc. You will find a more extensive list on the website of DGT under the section ""Support", "FAQ", "E-Boards with 3rd party software". Please be aware that DGT cannot be held responsible for third party software not operating correctly.

For this option the Revelation II must be started up in **Bluetooth e-Board Mode**. In this Bluetooth mode the Revelation II is only an input device for your own moves, and to repeat the moves of your opponent.

Important: The LEDs will not be active in this mode. Such feature is planned to be introduced in a later firmware upgrade. The clock will run in countdown modus if you use a countdown timing in your chess program on the PC.

Installing the driver (RabbitPlugin)

The RabbitPlugin driver is necessary to connect Revelation II in transparent mode to a Windows Chess Program.

You will find 2 versions in this page:

<http://www.digitalgametechnology.com/index.php/support1/dgt-software/dgt-e-board-chess-8x8>

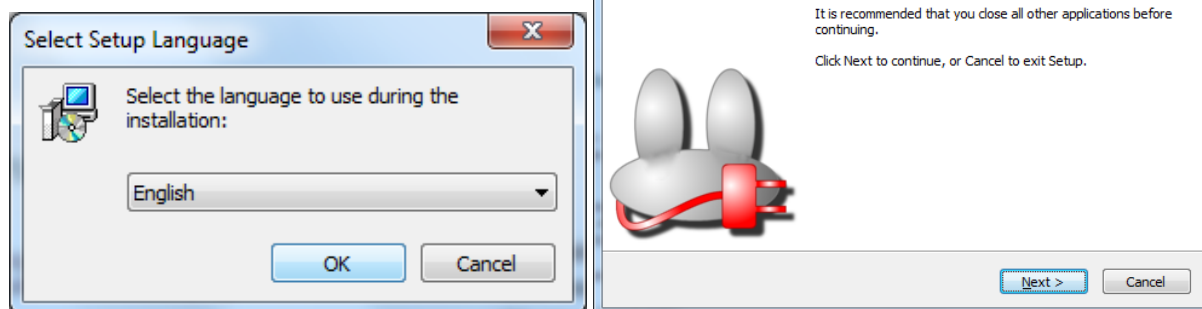
You could also visit www.digitalgametechnology.com and navigate to "Support", "DGT Software", "DGT e-Board (Chess, 8x8)".

One Rabbit version is for 32 bit programs and one rabbit is for 64 bit programs. Most chess programs are 32 bits, so even if you have a 64 Operating system, you definitively need the 32 bits version as well. On a 64 bits Operating system you should install both versions, on a 32 bits system you should only install the 32 bits version.

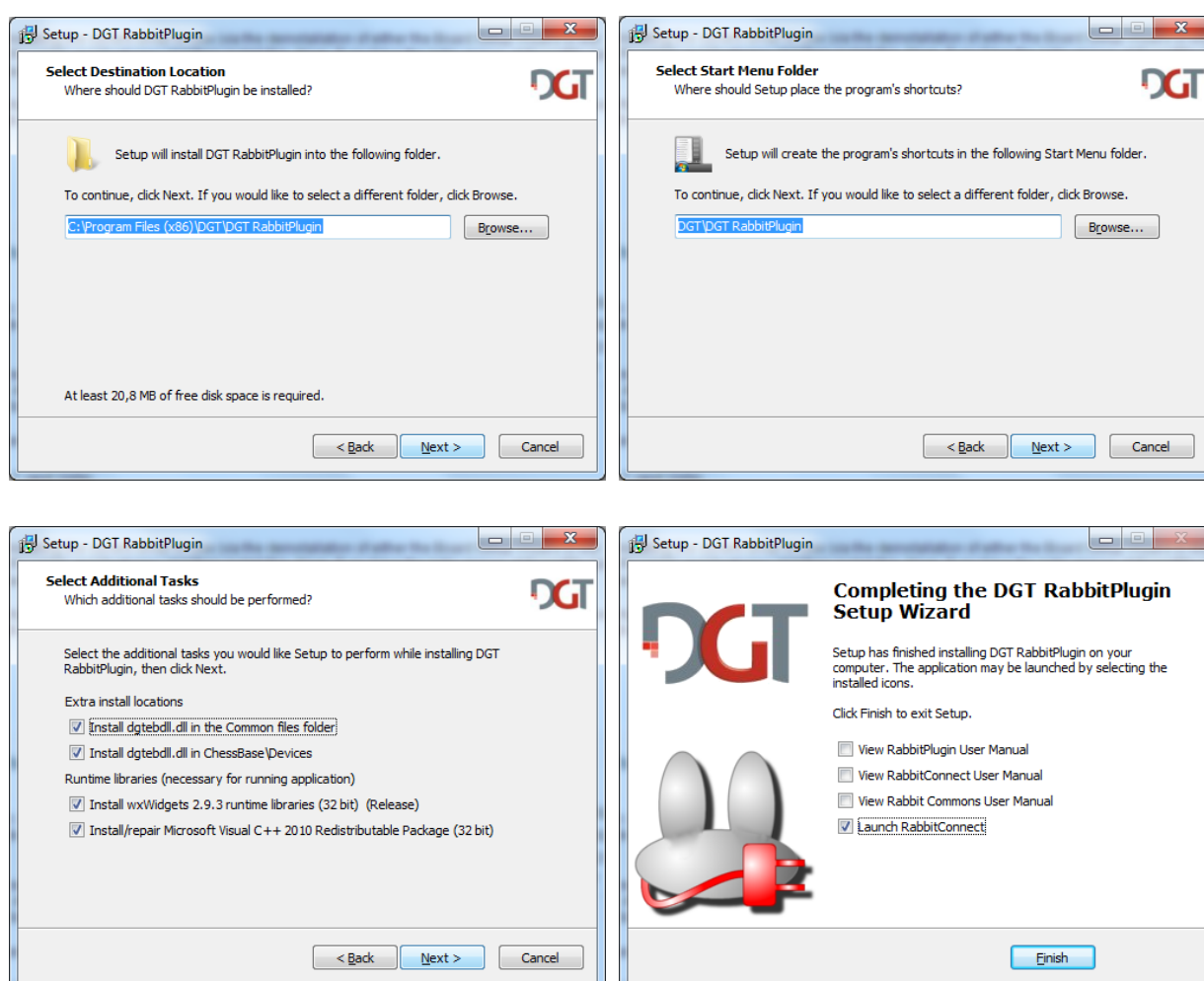
The Rabbit setup programs have names like this:

RabbitPlugin_2.0.27_mei03_Win32.exe and RabbitPlugin_2.0.27_mei03_Win64.exe

After starting these programs, there may be a message from User Account control again, after confirming this message the next box will appear. Although the program is in English you can choose some alternative languages in the setup.



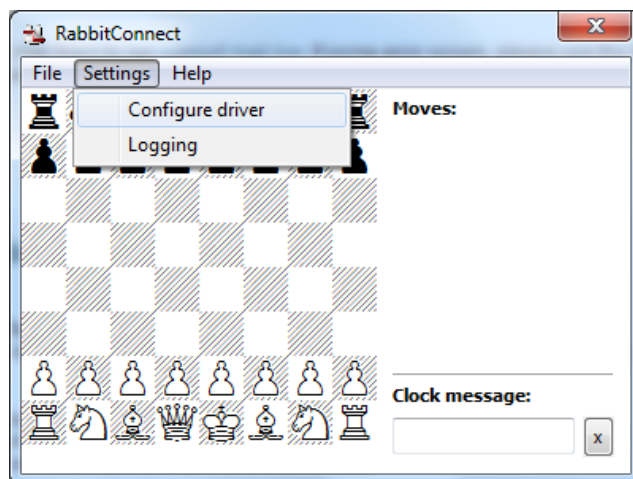
For normal usage with the revelation II, it is recommended to accept all default settings.



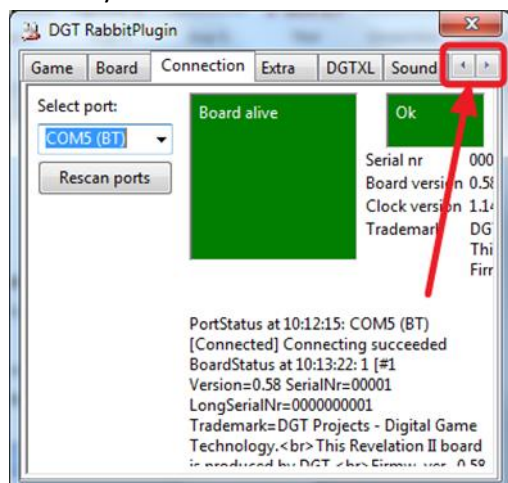
When you checked the box **“Launch Rabbit Connect”** in the previous screen. Then this program will start.

It does not do much more than connect to the driver for checking purposes or to change settings in the driver. These changes will apply for all programs that use the board and this driver. You should start Revelation II in DGT Bluetooth e-Board mode to access the board over the Bluetooth connection. (Start while holding ▲)

The main window will show the board. When the proper COM Port number is not yet chosen, there is a good chance that there are no chess pieces shown. It is a good idea to place all chess pieces on the Revelation II board in this phase. You can verify then if all pieces are placed and detected



correctly.

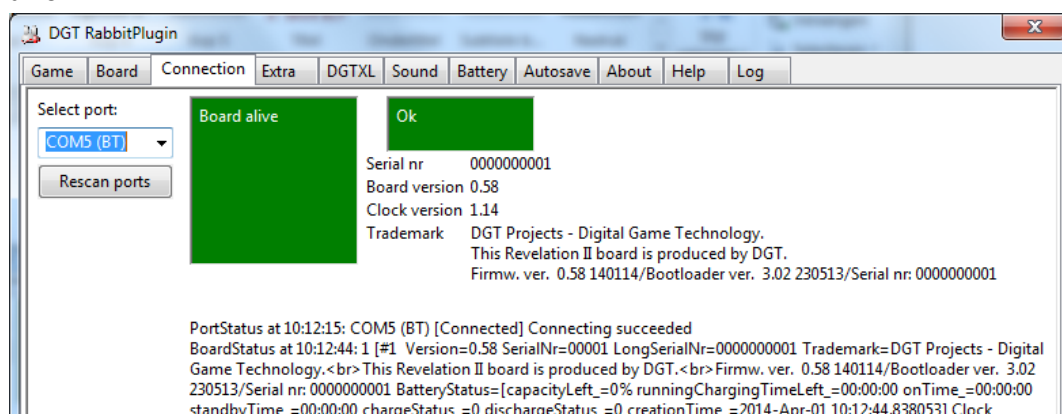


Click on the “**Settings**” menu and chose “**Configure driver**”

Then chose the “**Connection**” Tab first. Select one of the ports that have a suffix (BT).

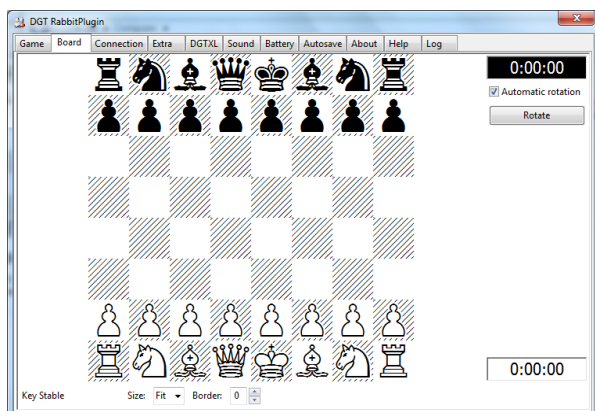
After a few seconds (up to 15) the big square should turn green and show “**Board alive**”. The green square on the right hand side indicates that a clock is found too. Revelation II has a built in chess timer so no external clock is required.

Please note that this window may be smaller on your computer and will not show all tabs. Two arrows will be shown in the upper right corner that will allow you to scroll horizontally. See the red arrow.

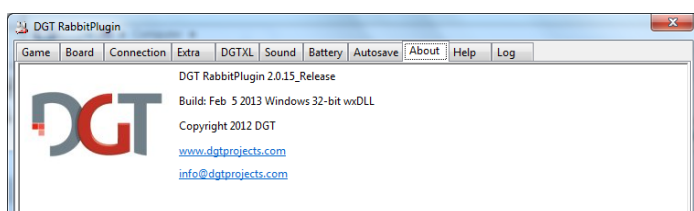


The Board tab will show the pieces on the board similar as in the main window of Rabbit Connect.

When this window is shown in a chess program, the squares may have a color. The meaning of these colors are explained in the help section of the RabbitPlugin program.



The battery tab has no meaning for Revelation II. This function is for the DGT Bluetooth e-Boards only. You will find additional information about the Rabbit program in the “**About**” Tab:



Updating the file system of a Revelation II

Below you can find the upgrade procedure for transmitting software upgrades to Revelation II.



Revelation UCI Server

Step 1: Install the Revelation UCI Server software on your Windows computer

(This step may be skipped if this program is already installed on your computer)

The program can be downloaded at www.digitalgametechnology.com.

Install the UCI Server and read the help files or the Revelation Manual to establish a Bluetooth connection with the Revelation II Board.

Important: Please be advised that the Bluetooth key for Revelation II is **1234** and not **0000** as may be indicated in UCI Server manual included as help file in the software.

Step 2: Set the options in the Revelation UCI Server

Start the UCI server. You will find it in the start menu. However it may also have already a shortcut on your desktop if you chose this during set-up. Follow next steps:

1. From the menu bar select **File –Options**.
2. Select the correct com port in 'Port ... '. For example if com6 is your **outgoing** port (from pc to Revelation II Board) enter the number 6.
3. Select Speed as: 230400
4. Flow Control: Material or None
5. Confirm with the **OK** button

Note: You only have to set these options once.

Step 3: Connect the Revelation II to the UCI server

From the menu bar select **File – Connect to Revelation II**. Only if it is not already connected.

After a short while you will see at the bottom of the window: “**Revelation Connected**”

Step3A.

The update will have one or multiple files ending in '.pcs' or '.pcs.gz'

In the menu bar select **File – Send file to Revelation II Board**.

A file Open window will appear.

Navigate to the location in which you saved the downloaded files and select the (first) file. Click on the “**Open**” button or double-click the filename.

The file transfer will start then. This will also be visible in the Revelation Display. Depending upon the file size it may take a long time to transfer the files.

Repeat this step for all indicated / required files.

Step3B.

When you get the message that the file transfer was successful (and after sending all files indicated), switch off your Revelation II and, after 5 seconds, switch it on again. You can use the soft off (**CLEAR + ENTER**) and the soft on (**ENTER**). You could also unplug the Revelation II from power.

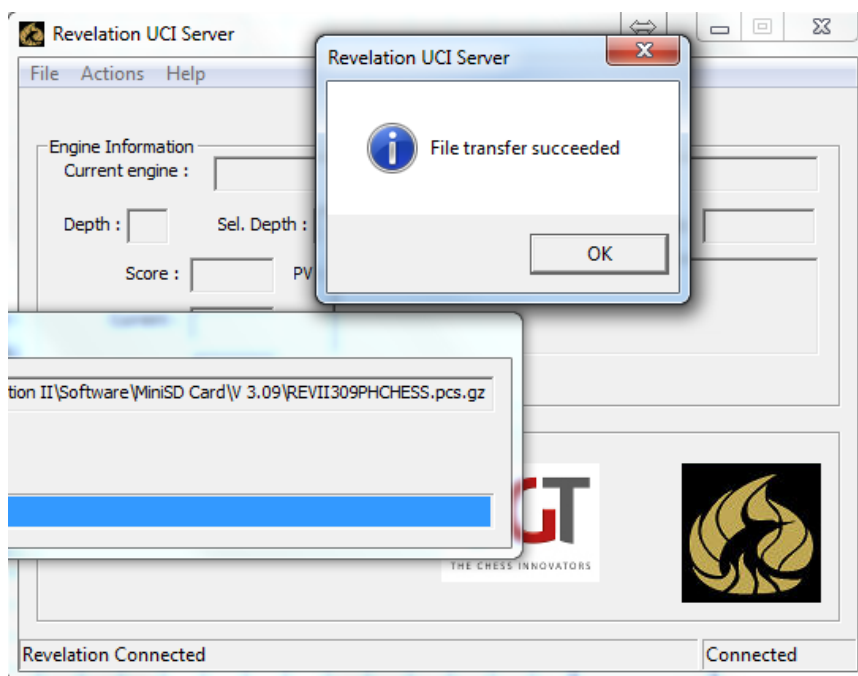
Revelation II will show some messages that it has found an update.

Step3C.

Your system is still running on the current (old) version of firmware. Go to the extended menu (**OPTIONS=YES**) and go to **SELECT VERSION** and press **ENTER**. Select here Version X.XX (The version number you just installed) and press **ENTER**. Wait until your system says ‘**SELECTED**’. This message will be visible very brief, so watch the revelation II screen. Then it will return to the main screen.

Important: DO NOT SWITCH off before the system shows the main screen!!

After this, you can switch off and switch on again. Now your Revelation II Board is running the latest firmware. The active firmware version now shows up in the opening screen.



For more information please read the help file included with the UCI Server.

Note: Marking below is in compliance with EU Directive 2002/96/EC and EN50419



This equipment is marked with the above recycling symbol. It means that at the end of the life of the equipment you must dispose of it separately at an appropriate collection point and not place it in the normal domestic unsorted waste stream. This will benefit the environment for all. (European Union only)

Warranty conditions

Digital Game Technology BV and Phoenix Chess Systems guarantee that your Revelation II complies with the highest quality standards.

This unique product is made from different materials all specifically selected to obtain the highest quality. The board and side stands are (partially) handmade from natural wood or veneer and may show small imperfections. The wooden chess pieces are handmade and may slightly differ in model from advertised images and can also contains small imperfections.

These imperfections are part of the material handling and manufacturing process and as such cannot be avoided completely.

If despite our care in choosing components and material, production and transport, your Revelation II nevertheless shows a defect within 24 months after the date of purchase, you should contact the dealer where you purchased the device and at the same time contact DGT support via support@dgt.nl

When contacting DGT about your Revelation II please include following information:

- Name of your dealer and a copy of proof of purchase
- Serial Number of the Revelation II
- Nature of the problem
- Your physical address and telephone number

The warranty is only valid if the Revelation II has been used in a prudential manner. Our warranty obligations do not apply if attempts to repair the DGT Revelation has been carried out without our explicit permission in writing.

You should always contact your dealer and/or DGT before returning any goods. For product information do visit: www.digitalgametechnology.com For support please contact: support@dgt.nl

Specifications

TECHNICAL	Marvell ARM Processor 128MB DDR / 1 GB Flash Memory Green OLED 256*64 Pixels Display Bluetooth 2.0 Communication Software Upgradeable
------------------	---------------------------------------------------------------------------------------------------------------------------------------------------

DGT SENSOR BOARD	Individual Piece Recognition Easy Setup of Positions Innovative LED Lights Emulates DGT Bluetooth Board Different Chess Set Options
-------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------

CHESS ENGINES	Multi Engine Commercial and Freeware
----------------------	-----------------------------------------

Configurable Engine Parameters
Bind Native PC Engines
Optional Retro Chess Engines

DIMENSIONS	Board Size 57 x 61 cm
	Square Size 52 x 52 mm
	Board Thickness 30 mm
	Side Stands Height 60 mm
	Canvas Carrying Bag Included

Appendix: Retro Emulations software.

Important: The Retro software package, as described in following appendix, is not standard included with the purchase of a Revelation II. The software can be purchased separately at your DGT dealer or the DGT web shop. See for more information:

<http://www.digitalgametechnology.com/index.php/dgtdealers/dealerlist>

Introduction

This retro software package enhances your Revelation II with the option to play against the great world championship's systems from the 1980's and 1990's. In those days the best programmers were cooperating with the great chess computer companies like Mephisto, Novag, Tasc, etc.

The retro software package includes many of those engines from the previous century and emulates the display and operation of those engines. Thank you for choosing the Revelation II retro software package. We wish you many challenging and fun filled hours of chess!

Modes of usage

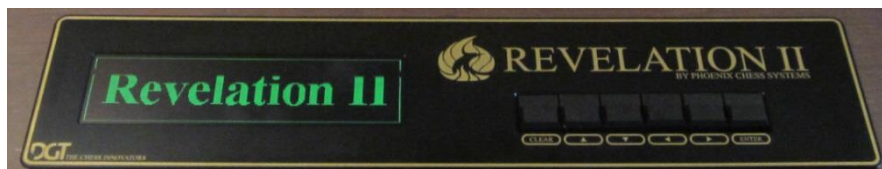
For using the Retro Engines please choose Emulation usage mode. The Revelation II is a versatile chess product and has some different usages:

1. **Normal usage:** The Revelation II starts up in normal play mode. In this mode you can play against the native on-board chess engines in Revelation II. This is also the strongest playing mode as the native on-board engines can reach high ELO Ratings of up to 2800 and above.
2. **DGT e-Board transparent usage:** Revelation II starts up in a mode where it behaves like a regular DGT Bluetooth e-Board. For this usage you should install the drivers on your PC or Mac. This mode starts after holding the key ▲ just before the right below square h1 lights up until the system is completely started.
3. **Emulation usage:** If you acquired this additional feature you can play against emulations of the world championship winners from the 80's and 90's of the past century. This mode starts after holding the key ▼ just before the right below square h1 lights up until the system is completely started.

Starting up the system

Power is provided by a regulated 12 Volt power adapter. It is strongly recommended to only use the provided adapter. For power outlets that are used in almost all countries there is a pin converter present. The adapter accepts mains voltages from 90 – 240 Volts.

Revelation II will start up automatically when the power connector is inserted. The system shows all 81 LEDs very shortly in sequence as a test and then shows the Revelation II splash screen.



Revelation II then will show the lower line of LEDs to indicate different stages of starting. The LED right below square h1 indicates that the system has started in a correct manner. If you push key ▼ just before it reaches h1 you will start Revelation II in its Emulation Mode.

This screen is the screen where you can select an engine. The Engines DIA, SEB, SEC and GLA are only enabled on request and if you can give proof to Phoenix Chess Systems that you already own a Diablo, Super Expert B, Super Expert C or the Glasgow software.



Powering down the system

You can switch off Revelation II when in playing mode by selecting OFF and holding this for 2 - 3 seconds after which the system will shut down to standby. The display is dimmed, and the LED left below square a1 indicates that the system has shut down.

Revelation II will start up again from this situation in normal usage if you hold **ENTER** during 1 -2 seconds.

If you choose the OFF function and the LED in the bottom left corner is the only one that lights up, then you can safely disconnect the power connector.

Information and settings

There are 6 keys on the front panel. From left to right they are called **CLEAR**, ▲, ▼, ◀, ▶ and **ENTER**.



The graphics display

The opening screen says it all. The emulation contains all World Champion Emulations from Richard Lang and from Ed Schröder based upon the original eproms.



Due to copyrights the DIA, SEB, SEC and GLA emulations are not included. If you have Eprom images of these programs you can request Phoenix Chess Systems to enable these emulations.

Included are:

- Almeria, Portorose, Lyon, Vancouver and London programs by Richard Lang;
- Amsterdam, Dallas and Roma programs by Richard Lang;
- Rebel, MMIV, MMV (version 5.0), MMV (Version 5.1), Polgar 5 Mhz and Polgar 10 Mhz programs by Ed Schröder.

At the request of some of the world's top collectors the layout is like the original modules as in an Exclusive board from Mephisto. The emulated display is in the left side of the screen and the emulated keyboard is in the right side of the screen.

Selecting Emulations

In the opening screen you can select with the cursor keys the emulation to start. As an example in the next screen the London emulation is shown. You see the original display and the corresponding keys.



With the general key OFF, you switch off the module set as explained earlier. With KEY you can switch to native keyboard mode. With SND you can toggle between Sound and No Sound. With SEL you can select a new emulation. RES resets the current emulation. With SAV you can save the current state of the Vancouver alike emulations (only these can be saved).

Playing Emulations

After using the cursor keys to select which emulation to start, you will see the emulation in action. In the following examples some different emulations and layouts are shown.



Mephisto London



Mephisto Polgar



Mephisto Roma

Native vs Emulated Keyboard mode

The emulated keyboard is visible on the right side of the graphics display. When you use the emulated keyboard you can use the ▲, ▼, ◀, ▶ keys to select a key you wish to press in the emulation. By pressing **ENTER** the emulator will accept the selected emulated key for the emulation. You can however in the Almeria, Portorose, Lyon, Vancouver and London programs by Richard Lang use 'native keyboard' mode. If you select KEY you will enter this mode in which the 6 keys from the Revelation II behave exactly like the real keys in these emulations. You can exit this 'native' mode by holding CLR for more than two seconds (you will hear a beep). You will then return to the 'emulated keyboard' mode.



Speed Bar

The Emulations in Revelation II can be set to run at a certain speed. When you are in the 'emulated keyboard' mode and you press ▼ a number of times, then you will see the speed bar light up. In effect this mode is part of the emulated keyboard, as when you press ▲ you will go back to the emulated keys in the emulated keyboard.



When the speed bar is highlighted you see that the slider is in the far right position, indicating the emulation is limited to the maximum speed available for this emulation.

When you use ◀ and ▶ you can set the maximum speed for the emulation. In the Almeria, Portorose, Lyon, Vancouver or London emulations you will see the 16, 32 and TM position indicating a speed like a 16 bit module, a 32 bit module and the tournament machines. As you can see the emulations can run faster than the originals. The Almeria, Portorose, Lyon, Vancouver or London Emulations reach the level of the Tournament Machines at 66 MHz.



The same applies for the emulations based upon a 65c02 processor. Here you can see the original speeds for the 65c02 based module sets.

Specifications

EMULATION Motorola 68000 processor
 Rockwell 65c02 Processor

DGT SENSOR BOARD Individual Piece Recognition
 Innovative LED Lights

RETRO CHESS ENGINES Richard Lang: *Almeria, Portorose, Lyon, Vancouver, London, Amsterdam, Dallas, Roma*
 Ed Schröder: *Rebel, MMIV, MMV, Polgar*