CYBERDINE

DART TOURNAMENT

ELECTRONIC DARTBOARD

User Guide

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Congratiolations on choosing an electronic dartboard CYBERDINE Dart Tournament, official unit on EDU (European Dart Union) tournaments.

We are sure that this unit will reward You with many moments of enjoyment which You are going to spend with your friends at Your favourite gathering place. We from CYBERDINE have invested maximum amount of effort in order to provide a unit in which design, quality, choice of games, opportunities and enjoyment are developed especially in order to provide a full satisfaction to the players / contestants. We wish you a lot of luck and free time in order to have a lot of enjoyment with our units. This user guide consists of a lot of important information on safety and the use of this unit so we would like to study them well.

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WARRANTY

CYBERDINE secures warranty in all countries in which they are obliged, ensuring repair at our own expenses relating to all abnormalities, even hidden and even in the case, the that the User is in the state to demonstrate a malfunction or a factory fault of the unit.

CYBERDINE guarantees that will function properly complying to the User Guidelines within the period of one (1) year from the day of purchase of the unit providing spare parts and service personnel free of charge, in case that the Warranty Certificate has been clearly filled in at the time of purchase, verified by the seal and the date from the authorised sales representative.

Warranty is not valid for any unit which is purchased in another country in which there are different safety standards and regulations from the one that are used, from which a purchaser refuses to provide necessary modifications at his own expense to bring the unit to the appropriate state of conformity and to the appropriate standards.

Warranty doesn't cover:

- Normal wear & tear caused by the use of the unit,
- Disassembly which is not expected and followed by the User Guide guidelines,
- Connection to an inappropriate voltage setting which do not comply with the settings located in the User's Guide.,
- Physically abusing and / or dropping the unit,
- Usage of the equipment in a way which is not described in the User Guidelines and to the vandal acts towards the unit,
- CYBERDINE is not responsible for the material expenses or accidents which are a result after an installation of the unit on the contrary to the appropriate safety measures related to the standards required in that country in which the unit will be used. In neither case does this Warranty provide rights to the compensation,
- Travelling expenses, lease and transport caused for unit resulting to become faulty,
- Additional damage caused by the third party.

The unit is conformant to the standards which relate to the limitations of the radio interference.

IMPORTANT WARNING!

ATTENTION: **Please read carefully the user instructions prior to commence the assembly and use of the unit.**

Please do not transport the unit in the fully assembled state!

Connection to the electricity: Voltage: 90 V – 260 V,
                                                  Maximum power consumption: 100 W.
                                                  When the unit is assembled and connected to an
                                                  electric wire, switch the master switch 1 (ON).

CAUTION: *All units* **CYBERDINE TOURNAMENT DARTS** *are manufactured with the grounding circuit so use suitable connections with protective grounding (European connector).*

CAUTION:

1.   Do not try to open the unit by force. The unit **does not contain** any parts or components to which the user will be able to repair.
If there is a need for a repair of the unit, go to the nearest authorized service center or directly to our office.

2.   Various openings which are located at the upper body of the unit, on the rear side and on the base are used for airing and ventilation of the interior as well as for cooling purposes. To ensure proper functioning of your unit, and to prevent overheating these exits must be freely cleared from any obstructions at all times.

3.   No metal part or similar foreign material must not be able to access to the internal unit through these vents. Reason being is that it may come to contact with the components under voltage and produce a short circuit or even a fire.

4.   The unit must not be installed or located close to the heat source.

5.   It is necessary in any case to avoid spillage of any form of liquid on the unit (wine, beer, coffee…). In case if it does happen, it is imperative to check the functionality of the unit by the experienced personnel. (resort to the closest service department or our office).

6.   It is important to store or keep the unit in the rooms without excessive dampness or in the open environment.
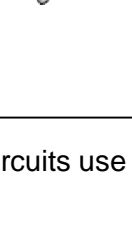
Within the unit **there are no voltage potential which could endanger life**, all of the circuits use a voltage potential of 5 Volts or 12 Volts.

CONTENTS

1. GETTING ACQUAINTED WITH THE CYBERDINE TOURNAMENT DART BOARD

CYBERDINE TOURNAMENT DART BOARD is an electronic, entertaining, sports Dart Board with electronic addition of points and arrows which enables to play traditional games (301, Cricket...), and the unit has all the new modern GAMES, as well as the OPTIONS for these GAMES. The individual Dart Board is unharmful attractive and overall an entertaining sports game dispersed throughout the whole world. Dart Board is one of the oldest entertaining sports disciplines and games. The first traditional TOURNAMENT was dated even back from 1927. and was called "New of the World", until during the TOURNAMENT held in London 1948., over 300.000 players have participated in the game. Epoch of electronic dart boards has commenced in the mid 80's, and the popularity of electronic dartboards is continually growing and has greatly superseded the popularity of the traditional dart boards.

The unit is constructed in such a way to ease and simplify the game to the player and leads the player through a game with light and sound effects. The main characteristics which the **CYBERDINE TOURNAMENT DART BOARD** have, and ease the exploitation are:

- Automatic change of the player
- Automatic subtraction of missed arrows
- Light signaling
- Sound signaling
- Electronic and a mechanical counter with simplified readings
- Single (both centers 50) and double center (25-50)
- Advertisement in the Demo mode
- Enabling the credits with the key or different types of tokens, possibility of remotely enabling the credits.
- Prize winning game
- Standing and the wall version of the unit
- 8 players, 8 Crickets
- Simple test parameter settings of the GAMES, and the pricing of the games
- FAIR PLAY OPTIONS - EQUAL (same number of circuits for all), PLAY OFF (keep the player in high spirits with the same amount of points) and END (proceeding the GAMES till the end)
- Simplified setting of standard values
- Attractive Demo mode
- Attractive melody
- QUATTRO option (quadruple segments)

CYBERDINE **TOURNAMENT DART BOARD** units are a result of many years of experience.

2. INSTALLATION AND THE SETUP OF THE UNIT

There is a maximum protection of the unit during transport, it has carefully being worked out and tested during the practice during many years... The unit is protected by its own method of assembling (Diagram.1), strengthening the metal plates which are used for the transportation purposes and during the disassembly is removed, then covered with a fivefold thickness carton box for further protection.

Diagram 1. – Device in the closed state

Hinges

Screw holes

Upper part of the Dart Board

Lower part of the Dart Board
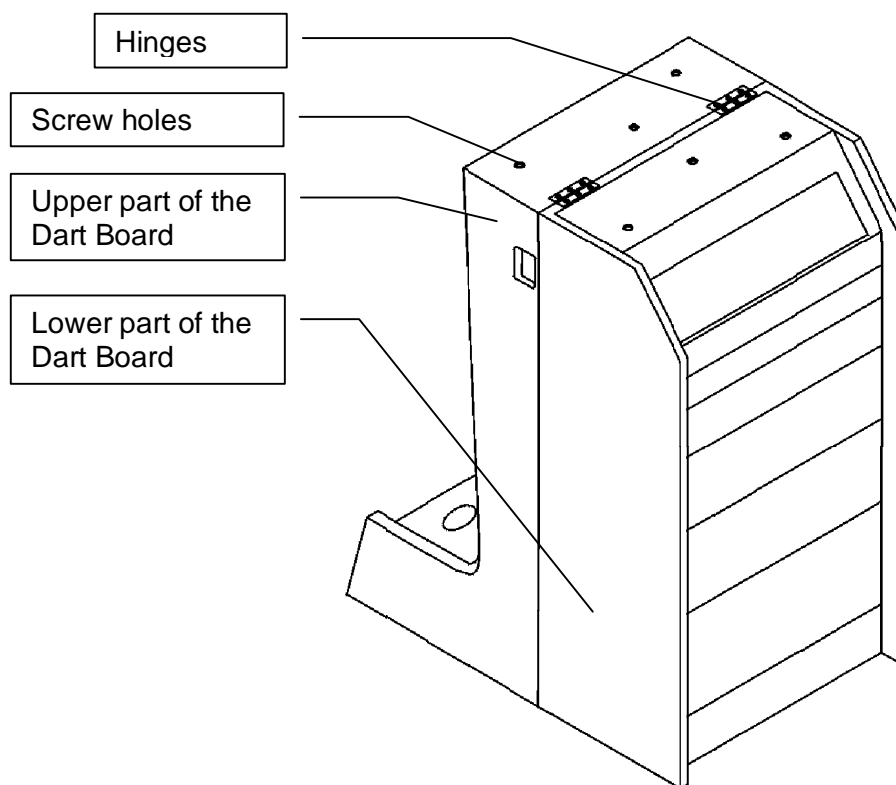
Operation during the assembly of the unit:

1. Remove the key from the cash box draw which is located in the upper part of the pedestal.
2. On the lower draw are located torque screws, other keys, arrows, wire cable, tips and start lines.
3. Cover the upper part on the pedestal, tightening it with the torque screws which are located in the cash box.
4. In this way the unit is completely assembled.

Diagram 2. – Unit ready for use

| Display |
| Target |
| Slot Unit |
| Power Conector plug |
| Buttons |
| Switch |
| Door for the "cash box" space |

Target Centre

1,73 m

2,93 m
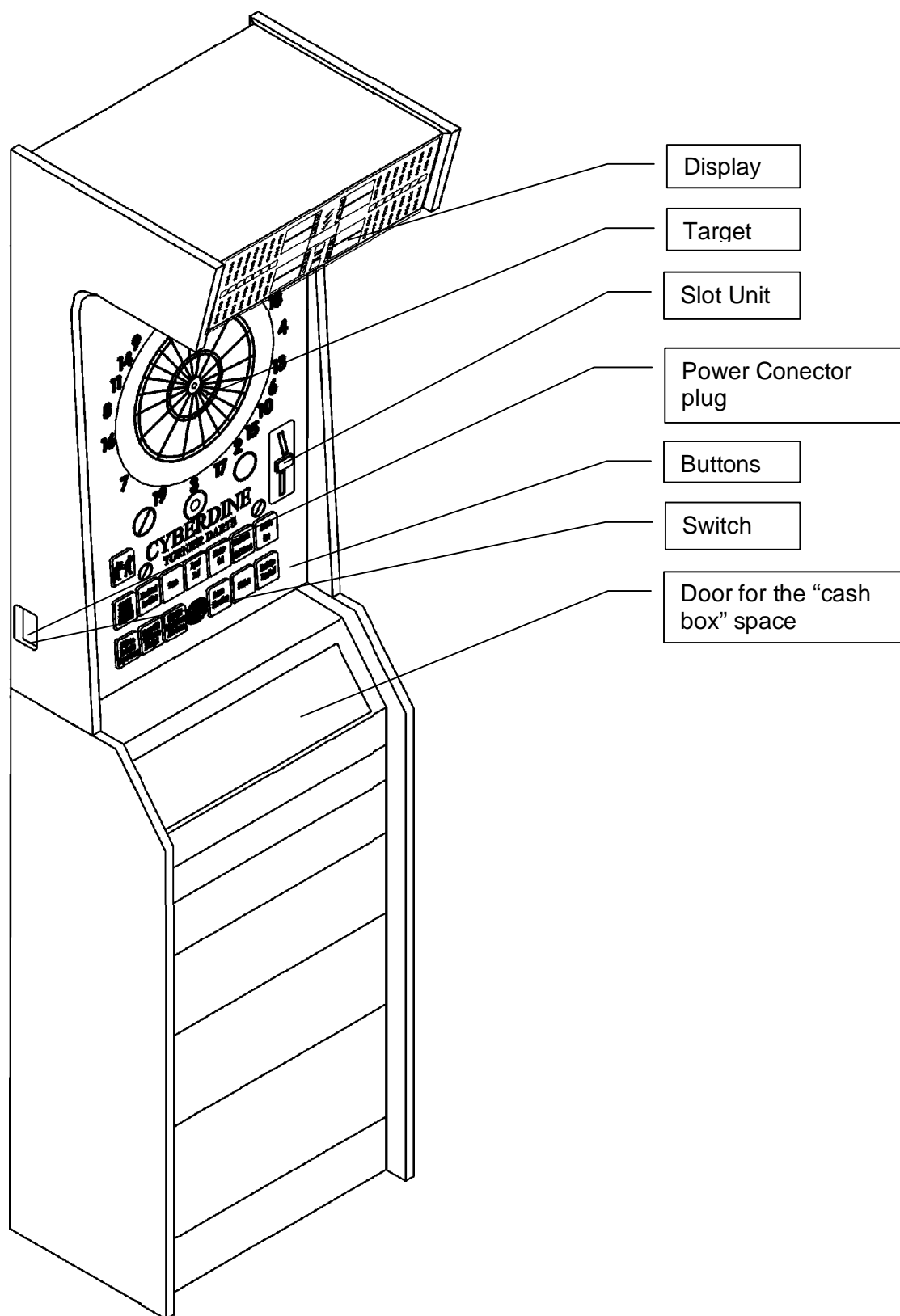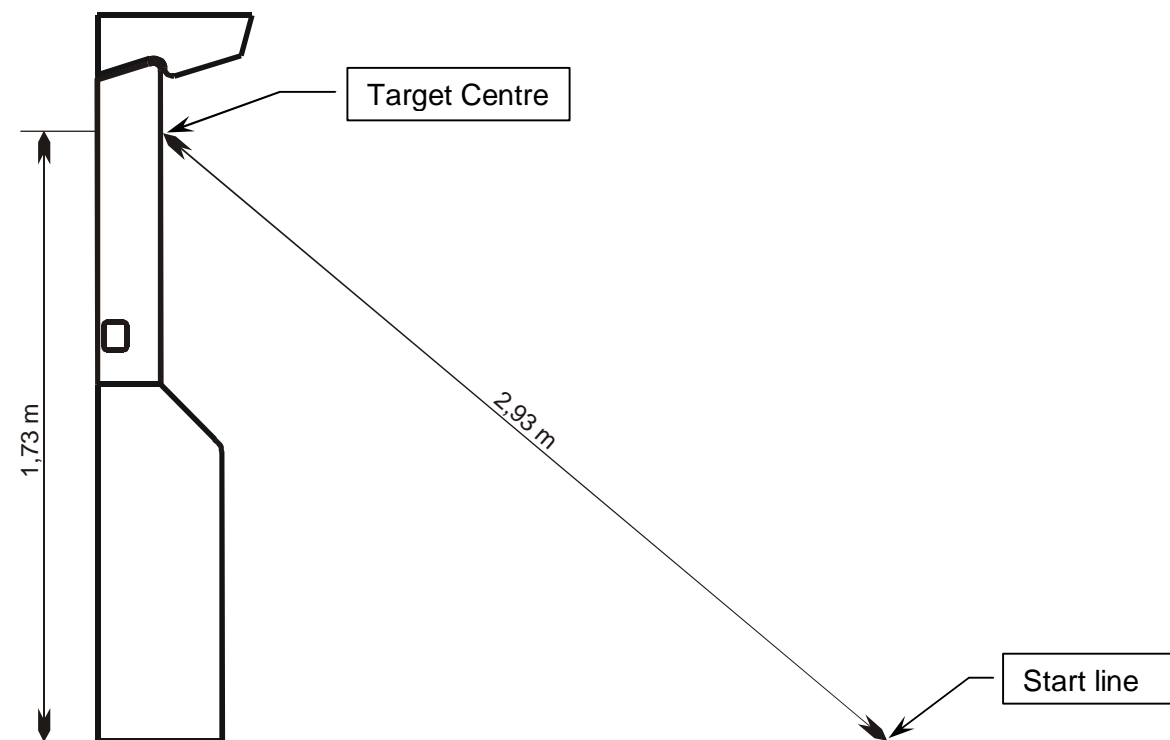
Start line

Properly set unit

The Unit has to be located in a place where the players will not be interfered from the other people and the people who are walking through the game area. Start line has to be set from the Start line which has to be placed from the face front of the target at a distance of 244cm (in majority of the countries), and in some countries 237cm, and in United States 8 feet. Therefore check the rules of distance in your country.

3. BRIEFLY (QUICK START)

This paragraph is intended to the personnel who have an experience with the electronic Dart Boards and is put together as a small reminder for the operations which have to be done to immediately start with the games.
Operating procedures are as follows:

1. Remove the carton box which acts as packaging material,
2. Connect both the upper and lower section of the unit using the screws which are located in the cash box compartment (for more details See paragraph 2.),
3. Connect the unit to a powerpoint via the cable which is located in the cash box compartment,
4. Microswitch number. 7 has to be switched on ON position, then turn on the unit (for more detailsa See paragraph 5.) – so are all parameters set to the factory settings (prices, length of the games, …),
5. Microswitch number / has to be turned on OFF position then closing the front door.
6. Dart Board is ready for use,
7. Now it is possible to choose the desired game,
8. The game can be started.

For more information which are related to assembly, connection, parameter setup and other functions, we urge You carefully read the whole contents in the User's Guide.

4. UNIT DESCRIPTION (PRIMARY FUNCTIONS)
4.1 UNIT SCHEMATICS

Infra sensor
Halogen Light
Woden support for the target
Winged nuts holding the target
Speaker
Sensor field connector
CPU board
Slot unit
"Tup"
Counters
Supply
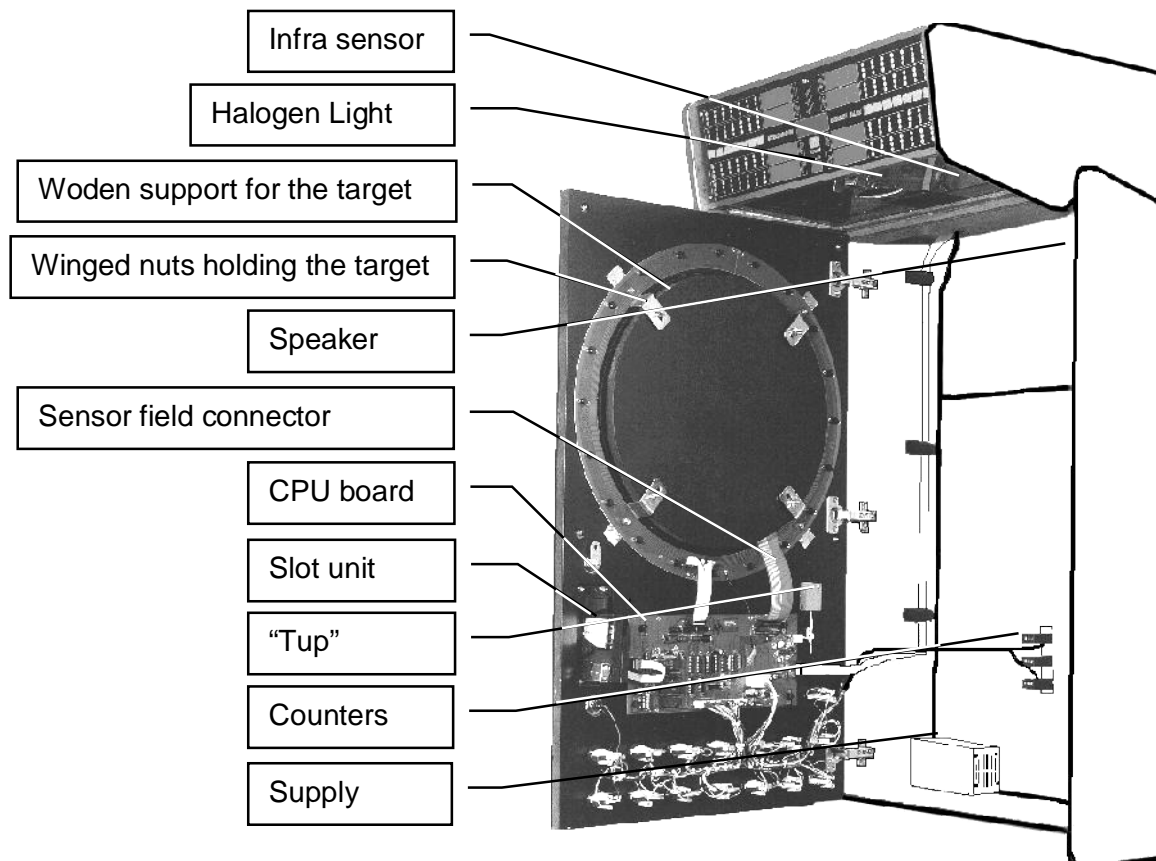
Slika 3. – Unutrašnjost aparata

On Diagram number 3. we see the internal view of the unit. Maintenance of the unit and cleaning of the target and replacement of any electronic component (CPU, display, peripheral units) is very simple. During the disconnection of the wires **it is not possible to change the Connectors** relative to the length of the wires and the usage of various types of Connectors.

4.2. TARGET
Diagram 4. - Target

Center (BULLSEYE) inside
BULLSEYE outside
Single segment
Double segment
Triple segment
Quadriplei segment (QUATTRO models only)
Spines
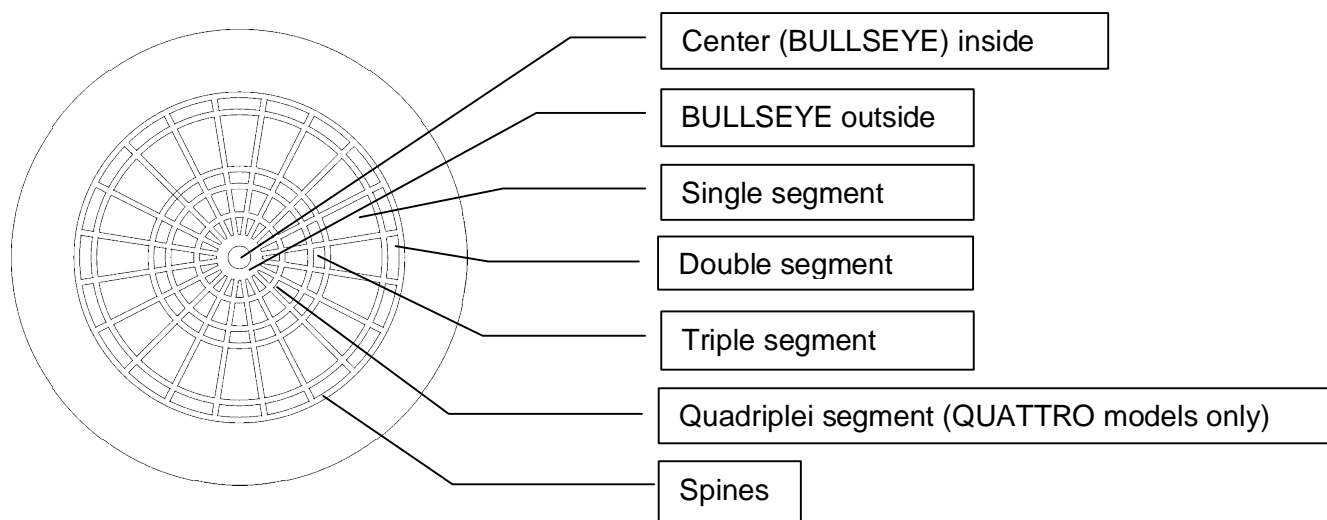
DIASASSEMBLY AND THE MAINTENANCE OF THE TARGET

After a few thousand games broken arrow points could fill in or clogg target segments, resulting the arrows not being able to stick on the dart board. Then is the time to clean the dart board. Points which stick out, have to be removed by a pair of pliers, and the ones that cannot be removed by the pair of pliers, have to be pressed to the inner side of the segment and disassemble the target and extract the pushed points.
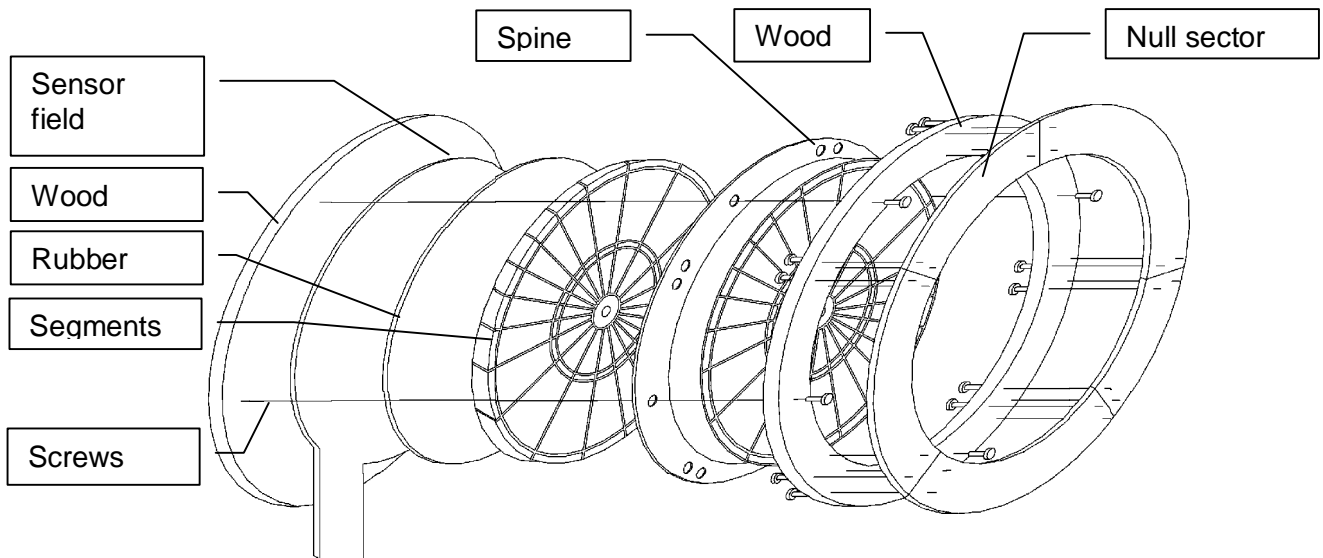
Target parts (for further information See paragraph 8.)

> **WARNING:** Careless and incautious handling of the target and its parts could cause damage and provoke damage to the dart board or its parts. For a safe disassembly of the target follow the step-by-step operating procedures mentioned below.

Sequence of the operations of disassembling the dart board:

1. Turn off the unit, open upper door and disconnect the sensor field connector on the electronics board (Diagram. 3);
2. Unwind 4 wing nuts (Diagram. 3) and take out the target from its base;
3. Unwind 4 wing nuts from the rear side of the target and remove the wooden base;
4. Carefully unwind the two screws from the sensor field and remove the sensor field and protective rubber;
5. Remove the broken tips and assemble the target board to the opposite side;
6. After every disassembla and assembly it is important to to check the sensor field function duting test, test the target board (See paragraph. 5.1.1.).

All of the parts from the target board are available as the spare parts. For further information see paragraph 8.

4.3. Buttons
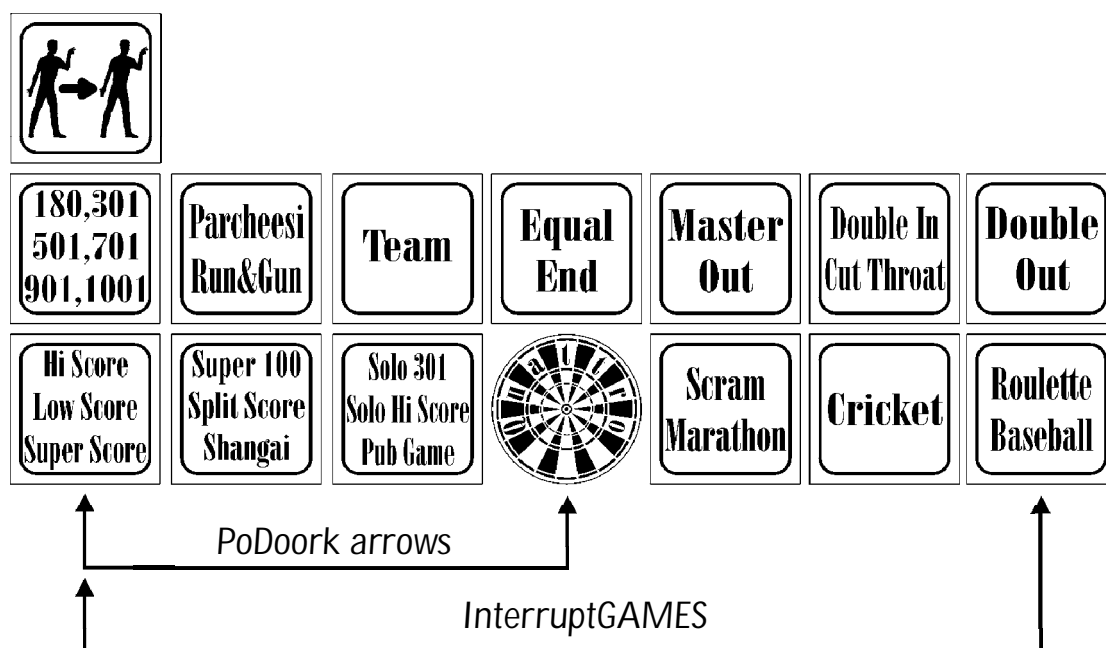
Diagram 5. - Button layout (QUATTRO model option)

On the Diagram number 5, we see the layout of the buttons on the door of the unit. When we turn on the credit, buttons which are used for chosing a game start blinking. On the buttons which have more functions, by pressing on the button the games are changing, eg. For a 501 game we have to press the button 3 times, and on the TEMPORAL display because of the ensurance of our choice of the game being selected GAMES is displayed. When we choose a game, then their OPTIONS blink and we have the chance to choose those options until the game starts, although the button lights stop blinking in the meantime. On CRICKET display the GAMES option is written to display our choice.

Description of each individual button:
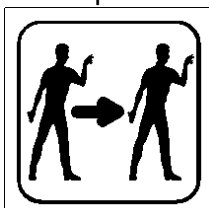
 By this button we change the players after each played round and the beginning of the game, we determine the number of players.
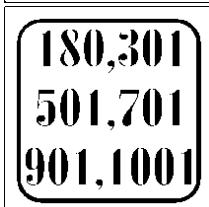
 By this button we choose the traditional GAMES: 180, 301, 501, 701, 1001.

 Button for the Choice type of scoring the game (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).
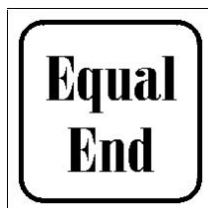
 Button for a fair play Choice option (see also paragraph 6 and 7 for the game rules and the combinations of the games).
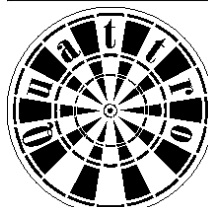
 Button for the QUATTRO OPTIONS Choice.

 Button for the Choice type of ending the game (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Parcheesi Run&Gun

Button for the Choice in the games which can be limited by time (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Super 100 Split Score Shangai

Button for the Choice of the new games except the traditional ones (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Team

Button for the Choice OPTIONS team – with the button *Players* by you select the number of players on each team and the Choice is seen on the "CRICKET" display

Solo 301 Solo Hi Score Pub Game

Button for the Choice for only a single person playing GAMES Pub Game (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Scram Marathon

Button za Choice novih igara osim onih tradicionalnih (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Double In Cut Throat

Button for the Choice type to commence a game called Cut Throat (see also paragraph 6 and 7 for the rules of the gameand the possible combinations of the games).

Cricket

Button for the Choice of the new GAMES (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Double Out

Button for the Choice how to end the game (exiting from GAMES) except in the Roullette game (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Roulette Baseball

Button for the Choice of the new games (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

HOW TO SKIP A ROUND

In case of any reason that the player has to skip his round he has to press the buttonu *Players* for three seconds and then release it.

ARROW RETURN

Press the buttons at the same time *Hi, Low Score, Super Score* and *QUATTRO.* This option enables a return of a single arrow in every round of the game (for any reason being) so that the player has 4 arrows on disposal. In order to enable this function, See paragraph 5.9.7.

STOPPING THE GAMES

In any event it is possible by pressing the buttons at the same time *Hi Score, Low Score, Super Score i Roulette, Baseball*, you are able to stop or start a new game from the beginning.

4.3.1. Model without QUATTRO OPTIONS

Buttons with the models without the QUATTRO OPTIONS are in reality the same, except that some buttons have different functions or the layout is slightly different.
Buttons which differ by their functions or their layout are described in sequence.

180,301 501,701 901,1001	**Parcheesi Run&Gun**	**Team**	**Equal End**	**Master Out**	**Double In Cut Throat**	**Double Out**
Hi Score Low Score Super Score	**Super 100 Split Score**	**Solo 301 Solo Hi Score Pub Game**	**Scram Marathon**	**Shangai**	**Cricket**	**Roulette Baseball**

PoDoork arrows

Interrupt GAMES
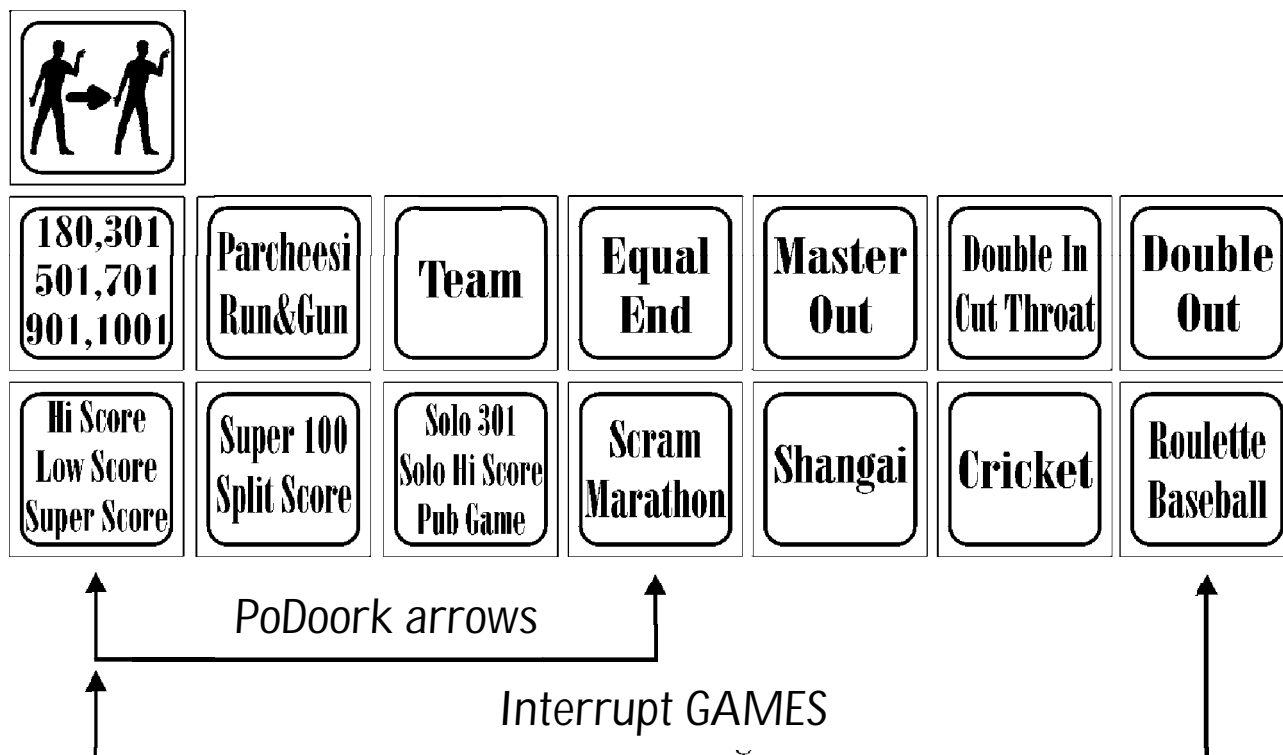
Diagram 6 – Button outlay (model without QUATTRO OPTIONS)

Super 100 Split Score — Button for the Choice options for the traditional GAMES (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

Shangai — Button for the Choice GAMES Shangai (see also paragraph 6 and 7 for the rules of the game and the possible combinations of the games).

HOW TO SKIP A ROUND

In case of any reason that the player has to skip his round he has to press the buttonu *Players* for three seconds and then release it.

ARROW RETURN

Press the buttons at the same time *Hi, Low Score, Super Score* and *QUATTRO*. This option enables a return of a single arrow in every round of the game (for any reason being) so that the player has 4 arrows on disposal. In order to enable this function See paragraph 5.9.7.

STOPPING THE GAMES

In any event it is possible by pressing the buttons at the same time *Hi Score, Low Score, Super Score* i *Roulette, Baseball*, you are able to stop or start a new game from the beginning.

4.4. DISPLAY
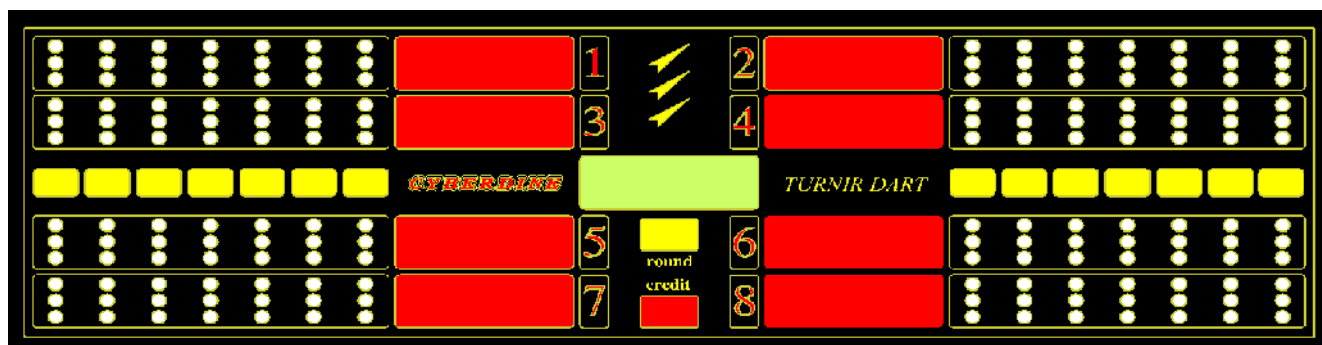
Diagram 7 – Display format

On the diagram 7. you can see the display (because of printing these Guidelines are not the same in reality) which is optimised, which provides all of the necessary information to the player eg. About the number of points achieved in a single round, about the number to be hit in order to complete the game, OPTIONS which are chosen for the game, chosen numbers of the Cricket game, credits …. Along all of this the attractive design of the display has not being forgotten as well as the great visibility and readability.

Round (circle of GAMES)

Credit amount

Number of points for Player number1.

Remaining arrows

Current number of points (TEMPORAL) before GAME commencment name of the GAME

Closed numbers (CRICKET) before GAME commencement name of the GAME options
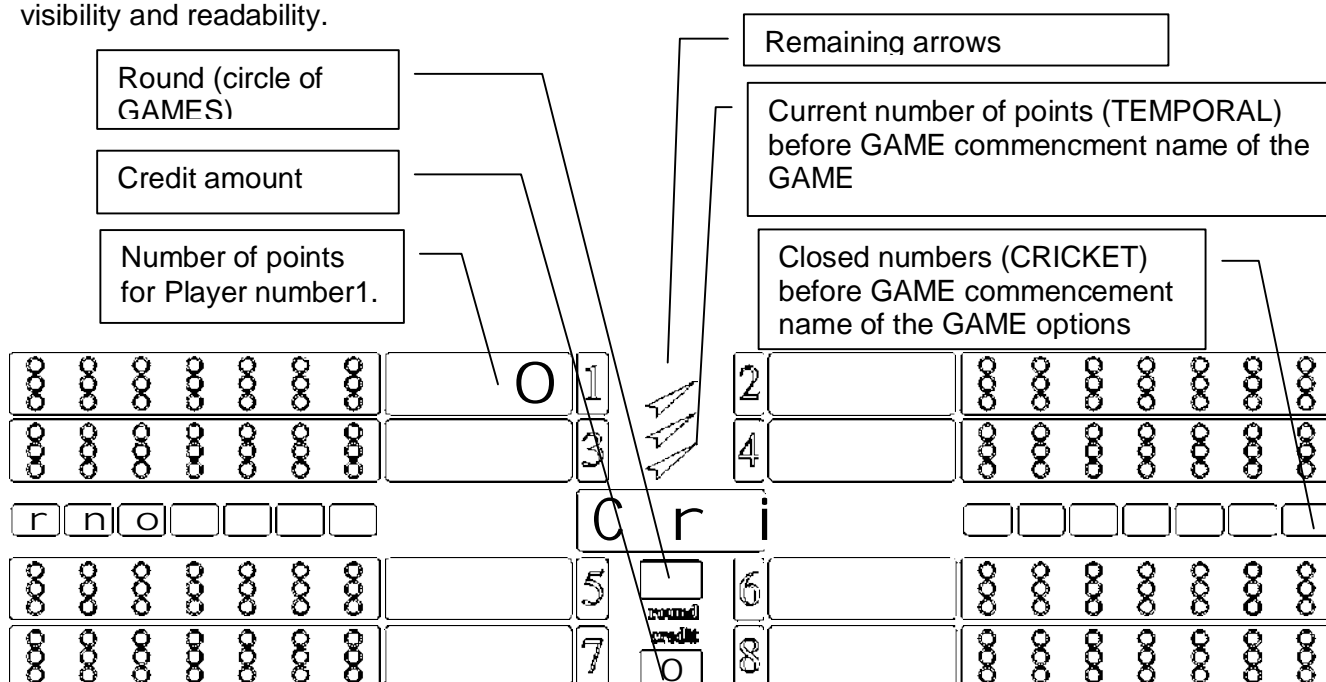
4.5. Slot

In a standard version i **CYBERDINE TOURNAMENT DART BOARD** tokens which are provided are ALBERICI AL03_1 K xx.
ALBERICI AL03_1 K xx is an electronic token and a creditor which can be programmed on the initial device without any additional equipment. Programming is very simple and the guides are very simple and the guides are are located on the device. Token card has 6 channels and can be programmed for 12 different types of coins and tokens.

5. MICROSWITCHES (DIP SWITCH)

Many functions of the electronic dart board can be modified on the field by the User. This is the reason being using the microswitches. To correctly adjust Your device, please carefully read the following pages and follow the written procedure.
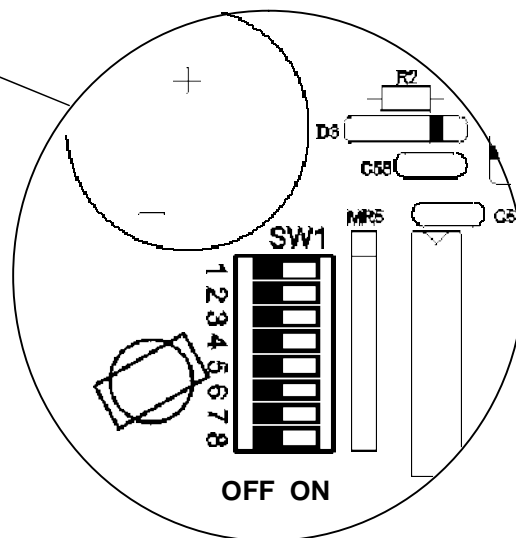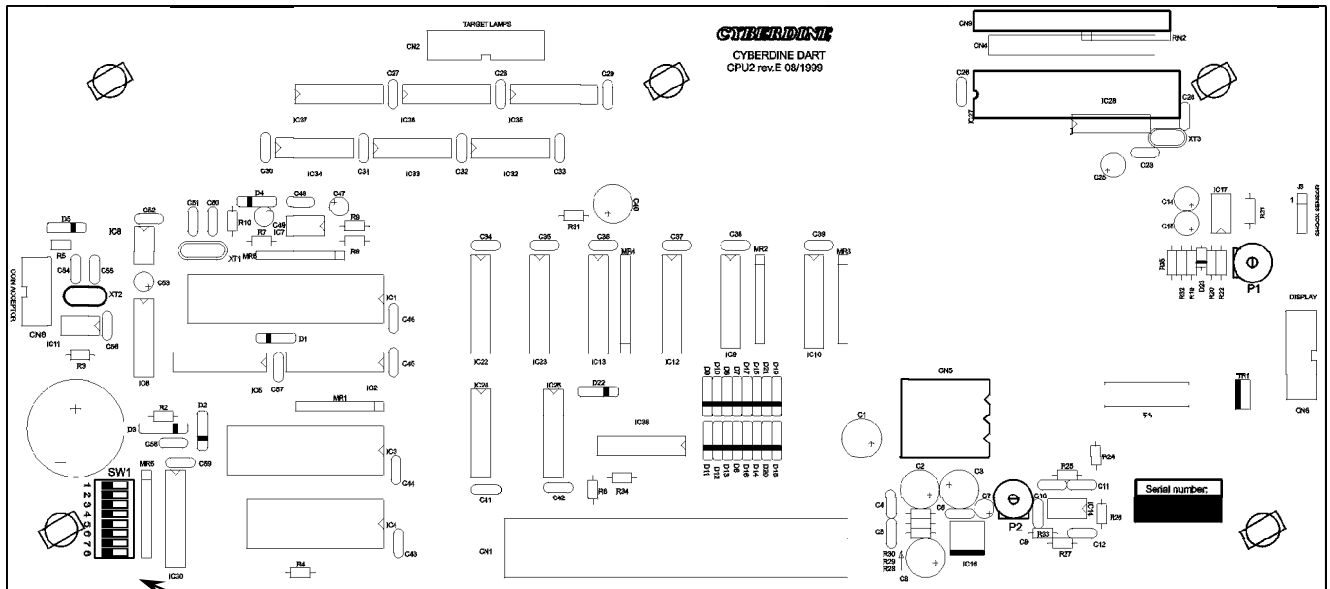
On the CPU board on the lower left corner the 8 microswitches are located.

They are used to enter the various menus (test, parameter setup...). They have two positions, ON or OFF. In the ON position the microswitch is active, and in the OFF position it is turned off. In order to enter the one of the following menus, we have to we have to turn off the device and turn the desired microswitch for a desired menu in th ON position and then turn on the device:

1. Test Menu   5. Auxillary Bookkeeping

2. Statistics   6. Tournament mode

3. Attract   7. E-eprom initialisation

4. Main Bookkeeping   8. Parameter setup

It is possible at any time to set the parameters by the manufacturer (in the case of unprofessional handling the modifications or if the undesireable values or if the procedure are forgotten) initializing E-eprom and RAM so that the unit turns off, microswitch number 7 is set to ON position and the unit is powered on again. Then it is required to press the button *Roulette* and hold it for 3 seconds, until we hear a short sound signal. By this process predefined parameters are set. Factory defined parameters are defined in the Paragraph 5.8

5.1 TEST MENU

In order to enter the TEST menu it is required to turn off the unit, microswitch number 1 set it to the ON positionand then turn the unit ON again. In the test menu we can check the unit functionality and the peripheral units and the certain segments. When we have activated the test menu, (microswitch number 1 placed in the ON position) a printout on the display shows "**test target**", and buttons *Hi Score, Scram* and *Double Out* start to blink. With these buttons we move through the menu. The button

```
888888  T e s  [1]  ⚡  [2]  888888
888888        [3]  ⚡  [4]  888888
☐☐☐☐☐        ☐        ☐☐☐☐☐
888888  T a r  [5] round  [6] e t  888888
888888        [7] credit [8]  888888
```
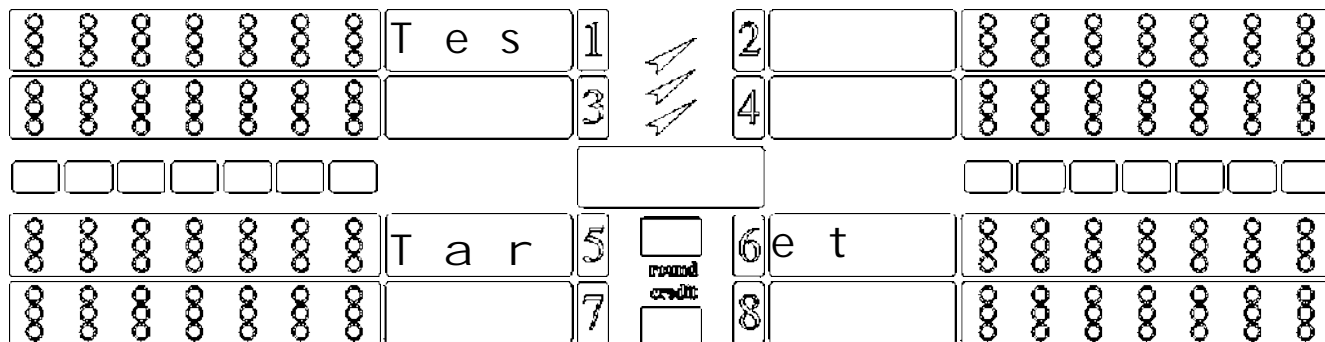
Double Out is used to open and close a desired submenu. The button *Hi Score* is used to move in a forward direction, and the button *Scram* for moving backward in the menu or the submenu. Only during the option "**test light**" Button *Player* uses for moving through the submenu because with the buttons *Hi Score* and *Scram* control the submenu.

180,301 501,701 901,1001	Parcheesi Run&Gun	Team	Equal End	Master Out	Double In Cut Throat	Double Out
Hi Score Low Score Super Score	Super 100 Split Score	Solo 301 Solo Hi Score Pub Game	Scram Marathon	Shangai	Cricket	Roulette Baseball
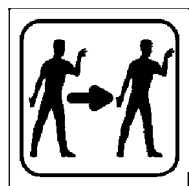
We have 6 submenus in the test mode:

                    a) test target
                    b) test light
                    c) test button
                    d) test infra
                    e) test tup
                    f) test credit

5.1.1. Test target
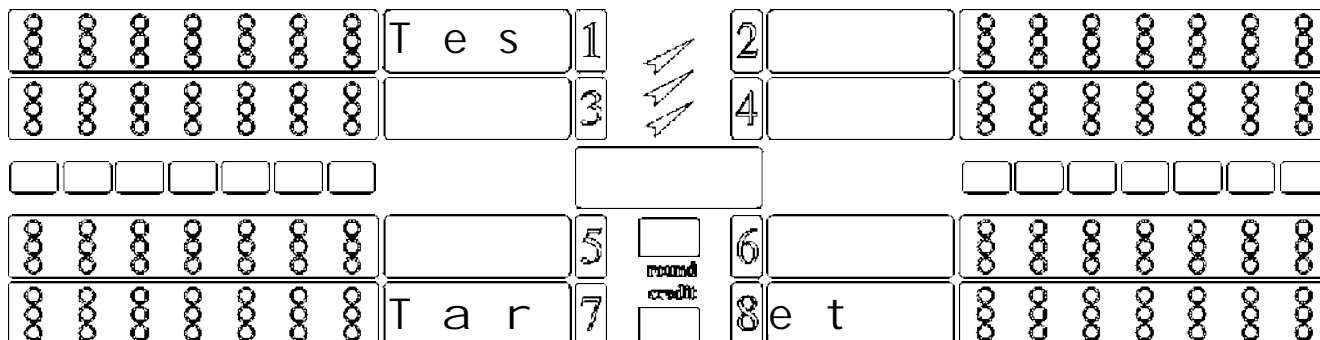
During the entry in the test menu the display shows "**test target**". In order to test the target we have to press the button *Double Out*. Within this sub-choice it is possible to test the functionality of connectivity of all target segments with the matrix sensor (foil) device. The target is tested by pressing on the certain segments on the target board. Display ROUND numbers 1,2,3 and 4 shows on the segment is single, double, triple or quadriple, whilst the exact number of segments can be seen on the CREDIT display. By the completion of the test by pressing the button *Double Out* we are exiting the submenu.

5.1.2. Test light

With the button *Hi Score* we move forward and when the display shows "**test light**" we press the button *Double Out* to enter this submenu. Within this submenu we can test the functionality of lighting of all led diodes and the unit lights. In the submenu we move with a button *Players*, whilst with *Hi Score* and *Scram* we continue with the test forward or backward.

Types of the tests are as follows:

- all light signals turn on
- testing the segments on the display
- testing certain segment lines
- testing the button lights
- testing of vertical and horizontal diode lines on the display

- testing the lights on the dart board, one by one

When we complete the testing of the light signals, in order to exit the submenu, we have to press the button *Double Out*.

5.1.3. Test button

```
[888888] T e s [1]  ⚡  [2][        ][888888]
[888888][     ][3]  ⚡  [4][        ][888888]
[  ][  ][  ][  ][  ][  ]  [        ]  [  ][  ][  ][  ][  ][  ]
[888888] B u t [5][round][6] o n [888888]
[888888][     ][7][credit][8][    ][888888]
```
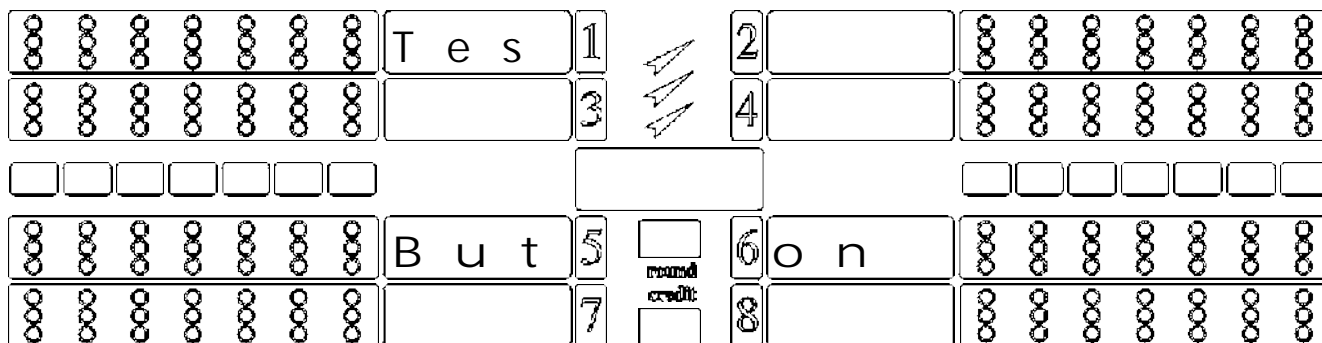
With the button *Hi Score* we move forwards and when the display shows "**test button**" we press the buton *Double Out*. When we choose the submenu "**test button**", by pressing the button *Double Out*, all buttons start to flash. The buttons lose their function for moving through the submenu, except the button *Players* which is used to exit from the submenu. During by pressing any button, except the button *Players*, on the display, it will be shown the printout of type of the button, and that Button must be lit. With the button *Players* we are exiting the submenu.

5.1.4. Test infra

```
[888888] T e s [1]  ⚡  [2][        ][888888]
[888888][     ][3]  ⚡  [4][        ][888888]
[  ][  ][  ][  ][  ][  ]  [        ]  [  ][  ][  ][  ][  ][  ]
[888888] I n f [5][round][6] a [888888]
[888888][     ][7][credit][8][  ][888888]
```
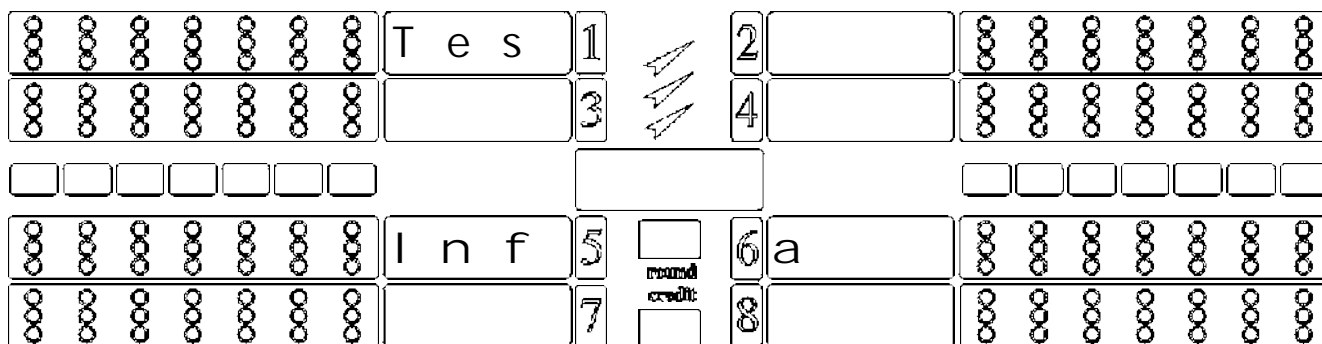
With the button *Hi Score* we move forwards and when the display shows "**test infra**" we press the button *Double Out*. During the activation of the infrared sensor a short sound signal will sound and the light on the FAULT will be lit. If the sensor doesn't function the best because of external effects (light tiles, some interference in the surrounding display a false detection or similar sl.) or unprofessional handling, it has to be adjusted. If the sound is continuously on, then the sensor is too strong, and if the sensor doesn't activate in the vicinity of the black circle around the target, then it is too weakthen the trimmer has to be adjusted on the sensor itself so that the sound signal is heard in the vicinity of the black circle under the dart board.Sensor is increased by moving it ina cloclwise direction, and in the opposite direction the sensor sensitivity is weakened. With the button *Double Out* we are exiting the submenu. For the other adjustments of the infra sensor, See paragraph 5.8.19.

Infra sensor position

Trimmer position for the regulation

Blue LED

Infra sensor

Red LED
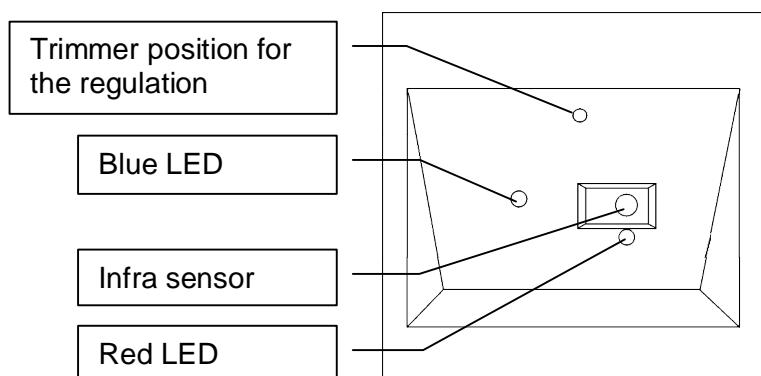
Infra sensor

5.1.5. Test tup

With a button *Hi Score* we move towads the frontand when the display shows "**test tup**" we press the button *Double Out*. During activation of tup sensora (senszora of missed arrows), by hitting with arrows in the black circle around the target, a short sound signal will be heard and the FAULT lamps will light up. If tup sensor is too sensitive or not sensitive enough, it can be adjusted on the CPU printed circuit boardi. Trmimer for regulation of sensitivity (P1) is located in the upper right corner of the CPU printed circuit board, the strengthening of the sensitivity of the sensor is adjusted by turning it
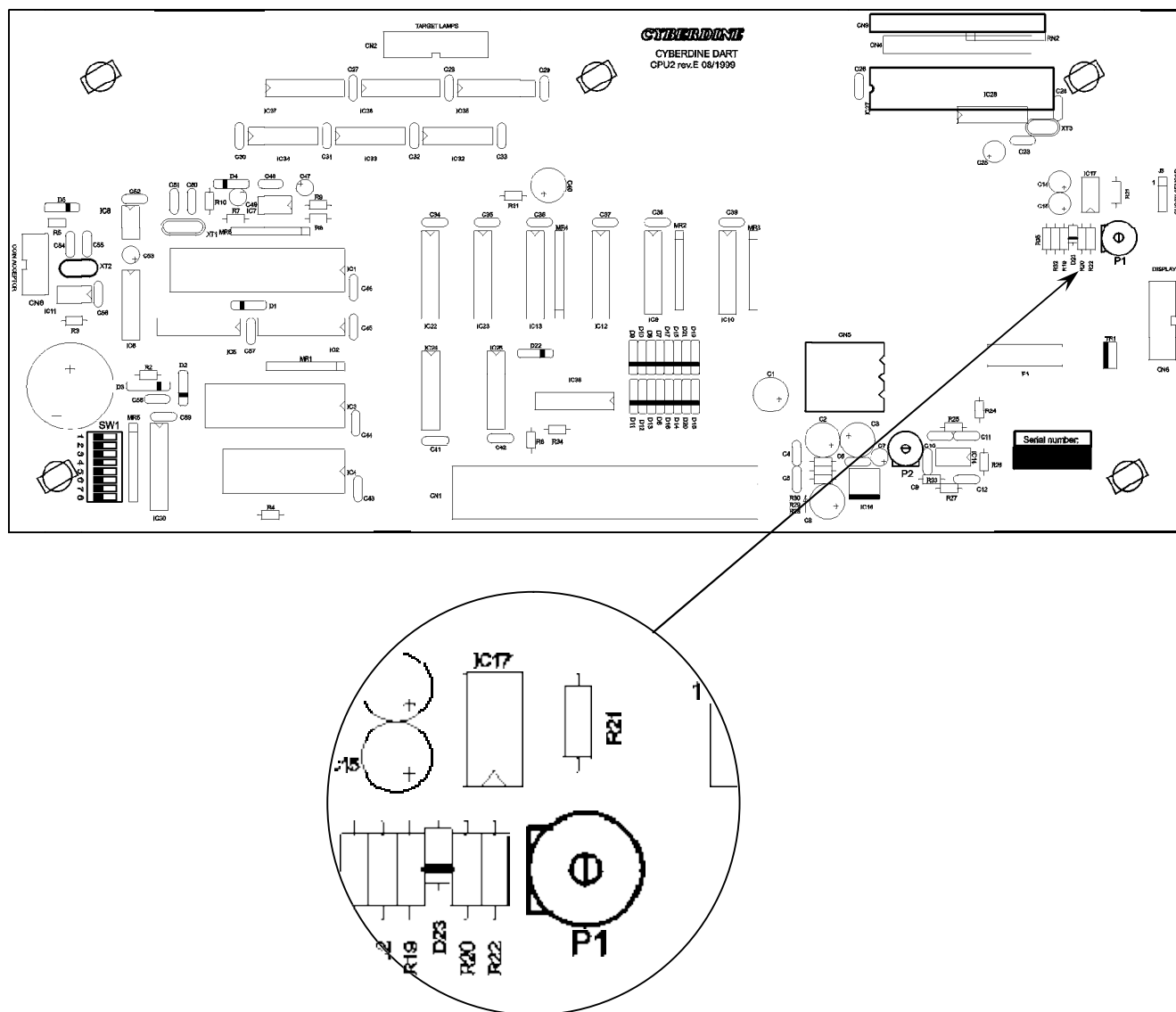
in a clockwise direction, and in the opposite direction it is weakened. If the tup sensor not possible to be adjusted and if the continuous sound signal is heard, we have to check the wire cable which must be grounded. With the button *Double Out* we are exiting fom the adjustments.

5.1.6. Test credit
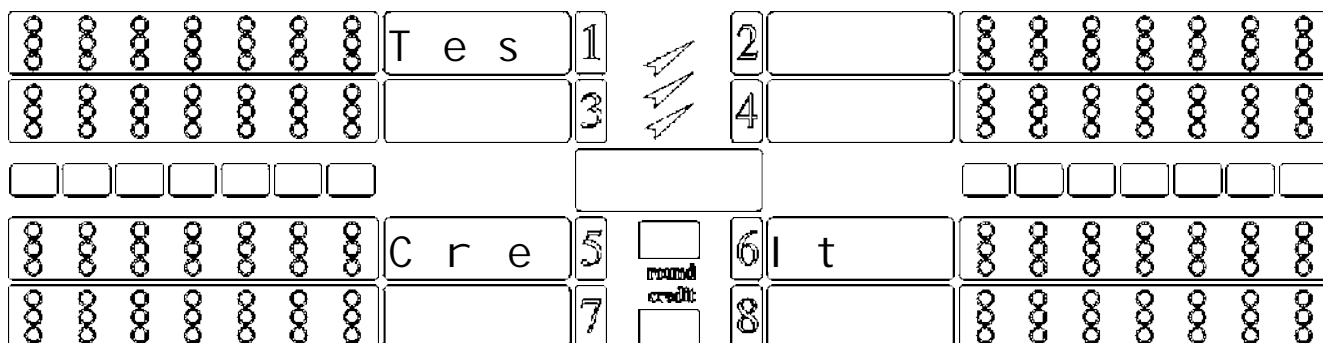
With the button *Hi Score* we move towads the frontand when the display shows "**test credit**" pressing the button *Double Out*. During the key activation or tokena short sound signal will be heard and the FAULT light will appear. During the key testing or of the token credits won't be turned on nor will be recorded in the bookkeepingor on the counter. With the buton *Double Out* we are exiting fom the adjustments.

> From the TEST MENU we are exiting by switching the microswitch number 1 in the OFF position.

5.2. STATISTICS

If the microswitch number 2 is located on the ON position we are entering this menu. This menu enables us to control the number of played games of each individual GAMES and its OPTIONS. By the buttons *Hi Score* and *Scram* we are moving forward that is back.

5.3. ATTRACT
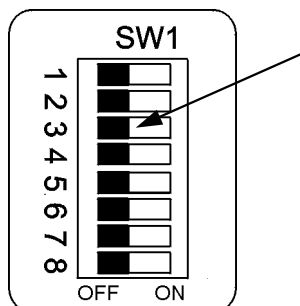
If the microswitch number 3 is in the ON position then we can choose if we want the halogen light which light the target is continuously on or is disconnected, and lights up only when the game commences, then if we choose after a certain period of time when the unit is not used starts to play a melody to (Attract). In order to memorise desired parameters the unit has to be turned off and then turned on again.

5.4. MAIN BOOKKEEPING
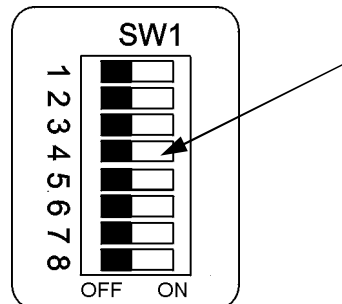
If the microswitch number 4 is in the ON position on the display, a number of credits will be displayed. This electronic bookkeeping is the safe battery free double accounting system for the complete control of the assets. They cannot be erased and the details are continuously kept. On the first and second player display, a six figured electronic counter, all of the credits are shown keyed under the input number 1 (key), whilst on the fifth and the sixth player display, six figured electronic counter, all of the credits are shown keyed under the input number 2 (token). From the main bookkeeping we are exiting by switching the microswitch number 4 in the OFF position.

5.5. AUXILLARY BOOKKEEPING
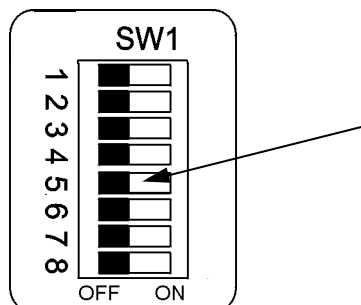
If the microswitch number 5 is in the ON position on the display a number of credits will be displayed. This bookkeeping is auxillary and can be erased by holding the button *Roulette* for 5 sec. This bookkeeping can also be read without opening the unit and switching the microswitch number 5 in the ON state. In order for the auxillary (waiters) bookkeeping be read, it is only required to turn the unit off, press the button *Equal* and again turn on the unit, and on the display a state of the credit will be displayed. When the *Equal* button is released, the unit immediately returns to the demo mode or in the exploitation if it has a credit present. Then the state is externally read and the bookkeeping cannot be erased. Erasing the status is possible only if the microswitch number 5 is switched to the ON mode. This method is for the simple sight of personnel and that is why this bookkeeping is called waiters On the first and second player display, a six figured electronic counter, all of the credits are shown keyed under the input number 1 (key), whilst on the fifth and the sixth player display, six figured electronic counter, all of the credits are shown keyed under the input number 2 (token).From the auxillary bookkeeping cen be exited by switching the microswitch number 5 in the OFF position.

5.6. TOURNAMENT MODE
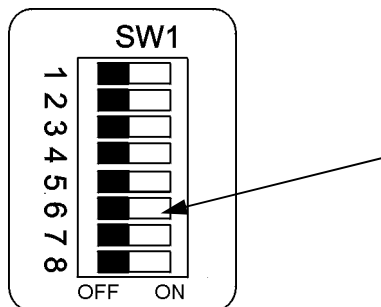
Microswitch number 6 we set the unit on the TOURNAMENT mode. Over here there is a possibility to play the game to an unlimited number of rounds, thence disconnection of the automatic display of numbers for the possibility of dropping the number to a zero. All of the sound effects are disconnected for the numbers valued up to the figure of 50.

5.7. E-EPROM INITIALISATION
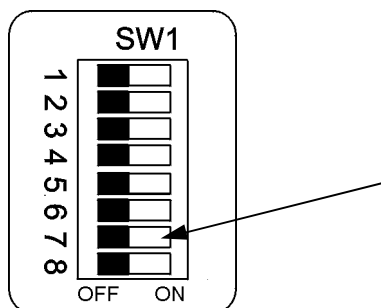
Initialisation of E-eprom and RAM is possible if the microswitch number 7 is in the ON position. Initialisation provides the factory settings which have defined parametersand are described in the section 5.8., in case of handling by the unqualified personnel. In order for the unit to be initialized it is necessary to press the *Roulette* button and hold it for 3 secondsuntil a short sound signal is heard. After the sound signal parameters are set on the standard values. During initialization the main bookkeeping is not erased, but during the initialization of the RAM a current state of the credit is erased on the display.

5.8. PARAMETER SETUP
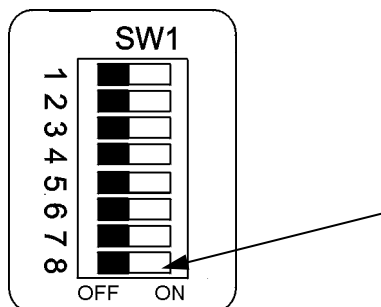
Within this menu we can adjust various values tied by the credit price, length of the games, prize game and others. When we adjust the microswitch number 8 in the ON state then we activate this menu. On table 1 the factory defined parameters are shown which can be set by initialization of the E-eprom, (see paragraph 5.7).

Table 1

1.	PRICE ADJUST	see table 2
2.	HAPPY PRICE	see table 2
3.	ROUND ADJUST -Hi, low,super score -Cricket -180, 301, 501, 701, 901, 1001,solo,roul., …	 07 20 05,10,15,20,25,30…
4.	HAPPY ROUND -Hi, low,super score -Cricket -180, 301, 501, 701, 901, 1001,solo,roul., …	 07 20 05,10,15,20,25,30…
5.	SETUP CLOCK	Sat
6.	SETUP HAPPY HOUR	start 0 0 end 0 0
7.	BONUS CREDIT	0
8.	BONUS PERCENT	0
9.	TIME LIMIT	00
10.	COUNTER PULSES	00
11.	SWITCH CREDITS	01
12.	TIME CREDITS	0
13.	PUBLICITY	Cyberdine TOURNAMENT darts
14.	LOTTERY	10
15.	OPTIONS REMEMBER	ON
16.	DEMO SOUND	ON
17.*	QUATTRO MODE ON	ON
18.	RETURN DART	ON
19.	BULL VALLUE	2
20.	PLAY OFF	ON
21.	MAIN LAMP	16
22.	BACK LIGHT	2
23.	INFRA ADJUST	02
24.	ACCEPTOR TIME ADJUST	01

* - only on the QUATTRO models

In this menu we are orienting as in the test menu, with the buttons *Player, Hi Score, Scram* and *Double Out*. button *Double Out* is used for opening the desired changes, its closure and confirmation, choosing new value. Button *Hi Score* is used to move forward and increasing the value, a Button *Scram* for moving backwards and reducing the value through the menu and submenu. Only in the option "**price adjust**" and "**round adjust**" Button *Player* is used in the submenu because with the buttons *Hi Score* and *Scram* we change the values.

5.8.1. Price Adjust

S E T   P   Copyright © CYBERDINE d.o.o.

When we switch the microswitch number 8 in the ON position, (the unit has to be firstly disconnected then turned on again) on the upper display a "**price adjust**" will be displayed. By pressing the buttons *Double Out* we are opening a submenu. In the submenu we ar moving (changing GAMES) by the button *Players,* and the buttons *Hi Score* and *Scram* we are changing the price of the games. When we have adjusted the values by the *Double Out* button we confirm the new choices and are closing the submenu. In the table 2 we have the normal price of the games which are set during the initialisation phase.

Table 2

180	c ½
301	1
501	2
701	3
901	3
1001	4
CRICKET	2
HI - SCORE	1
LO - SCORE	1
SUP - SCORE	1
SHANGAI	1
BASEBALL	1
ROULETTE	1
SCRAM	2
SUPER 100	1
PUB	c ½
SOLO HI SCORE	1
SOLO 301	1
MINI MARATHON	2
MARATHON	4
SPLIT SCORE	1
DOUBLE IN	0
DOUBLE OUT	0
DOUBLE IN OUT	0
MASTER OUT	0

5.8.2. Happy Price

```
S E T      1        2 P
           3        4
           hap  5     6 y
           Pri  7     8 e
                round
                credit
```
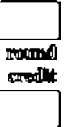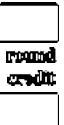
By the button *Hi Score* we are moving the menu forwards until we see a sign **"happy price"** then we have to press the button *Double Out*. By pressing the button *Double Out* we are opening a submenu. In the submenu we are moving (changing GAMES) by the button *Players*, and by the buttons *Hi score* and *Scram* we are changing the price of the games. When we have adjusted the values with the button *Double Out* we are confirming a new choice and are closing the submenu. Standard price value is shown on the table 2. In order to confirm and store the values we have to press the button *Double Out*.

5.8.3. Round Adjust

```
S E T      1        2 P
           3        4
           Rou  5     6 d
           Adj  7     8 s t
                round
                credit
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**round adjust**" By the button *Double Out*. By pressing the button *Double Out* we are opening a submenu. In a submenu we are moving (changing GAMES) by the button *Players*, and by the buttons *Hi Score* and *Scram* we are changing the number of game rounds. When we have adjusted the values by the button *Double Out* we are confirming a new choice and closing the submenu.

5.8.4. Happy Round

```
                1        2
                3        4 P
     S E T                
                5        6
                round
                credit
                7        8
```
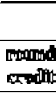
By the button *Hi Score* we are moving the menu forwards until we see a sign "**happy round**" By the button *Double Out*. By pressing the button *Double Out* we are opening a submenu. In a submenu we are moving (changing GAMES) by the button *Players*, and by the buttons *Hi Score* and *Scram* changing the number of the game rounds. In a submenu we are changing the number of rounds of certain GAMES in a defined time frame (happy hour). This time frame is determined by choosing Setup Happy Hour. When we have adjusted the values by the *Double Out* button we confirm the new choice and are closing the menu.

5.8.5. Setup Clock

							S E T	1		2	P							
								3		4								
						S E T	5	round credit	6	P							
						C l o	7		8	k							

By the button *Hi Score* we are moving the menu forwards until we see a sign "**setup clock**" then we have to press the button *Double Out*. By pressing the button *Double Out* we are opening a submenu. Within this subchoice we are adjusting the exact time of the hour. In a submenu we are moving (adjusting the hour, minite, seconds) by the button *Players*, and by the buttons *Hi Score* and *Scram* we are changing the hour, minute, seconds. When we have adjusted the values by *Double Out* button we are confirming the new choice and are closing the submenu.

5.8.6. Setup Happy Hour

						S E T	1		2	P							
							3		4								
						S E T	5	round credit	6	P							
						H a p	7		8	Y h							

By the button *Hi Score* we are moving the menu forwards until we see a sign "**setup happy hour**" then we have to press the button *Double Out*. By pressing the button *Double Out* we are opening a submenu. Within this subchoice beginning and the end of the happy hour duration. We then open a submenu and are moving (adjusting the hour, minute, seconds) by the button *Players*, and the buttons *Hi Score* and *Scram* we are changing the hour, minute, seconds. When we have adjusted the values by the button *Double Out* we are confirming a new choice and closing a submenu.

5.8.7. Bonus Credit

8 8 8 8 8 8	S E T	1	⚡	2	P		8 8 8 8 8 8
8 8 8 8 8 8		3	⚡	4			8 8 8 8 8 8
□ □ □ □ □ □						□ □ □ □ □ □
8 8 8 8 8 8	b o n	5	round credit	6	s		8 8 8 8 8 8
8 8 8 8 8 8	C R E	7		8	I T		8 8 8 8 8 8

By the button *Hi Score* we are moving the menu forwards until we see a sign "**bonus credit**" then we have to press the button *Double Out*. This option defines the limit when we are going to share the bonus, credits ie. On which anount of credit are we adding a bonus. If for an instance a chosen number 10 without the percentage of the bonus (See paragraph 5.8.8.) till 10 credits are shared the bonus is not given out until the inserted value of money copmlies with the 10 credits or more, then the bonus is rewarded depending on the values adjusted by the paragraph 5.8.8. Certain values are 2 to 50 buttons *Hi Score* and *Scram* reducing or increasing the borderline of the creidit In order cto confirm and save the value we have to press the buttons confirm and save the valies we need to press the Value to save the value we have to press the button *Double Out*..

5.8.8. Bonus Percent

8 8 8 8 8 8	S E T	1	⚡	2	P		8 8 8 8 8 8
8 8 8 8 8 8		3	⚡	4			8 8 8 8 8 8
□ □ □ □ □ □						□ □ □ □ □ □
8 8 8 8 8 8	b o n	5	round credit	6	s		8 8 8 8 8 8
8 8 8 8 8 8	p e r	7		8	e n t		8 8 8 8 8 8

By the button *Hi Score* we are moving the menu forwards until we see a sign "**bonus percent**" then we have to press the button *Double Out*. By this option we are confirming the credit in percentages, like for eg.20 % bonus gives 2 credits on 10 inserted, 3 on 15 inserted in etc.. Possible are from 0 to 30 by increments of 5. By buttons *Hi Score* and *Scram* we increase or decrease the value of the bonus. In order to confirm and save these values we have to press the button *Double Out*.

5.8.9. Time Limit

		SET	1		2	P		
			3		4			
		Tim	5	round credit	6			
		Lim	7		8	t		

By the button *Hi Score* we are moving the menu forwards until we see a sign "**time limit**" then we have to press the button *Double Out*. Within this subchoice we can change and confirm tha maximum time the player has toeach arrow into the target. With the buttons *Hi Score* and *Scram* we are changing the time from 00 to 60 secondsi, increasing it by 10 seconds. Time can be seen on a temporary results display (TEMPORAL). If we choose a zero (00), then for all the arrows we have unlimited time. When we have determined the time limit, in order to confirm and save the values, we need to press the button *Double Out*.

5.8.10. Counter Pulses

		SET	1		2	P		
			3		4			
		Cou	5	round credit	6	Ter		
		Pul	7		8	Es		

By the button *Hi Score* we are moving the menu forwards until we see a sign "**counter pulses**" by pressing the button *Double Out*. Within this subchoice we can change number of turns of the mechanical counter in reference to the number of credits from 0 to 10. The number shows how many credits from 10 will not be shown on the mechanical counter. Like for eg. Number 3 says that it will from 10 inserted credits will be counted only 7. If number 10 is chosen, the mechanical counter is disconnected. Then we have set the wanted value, in order to confirm and save, we have to press the button *Double Out*.

5.8.11. Switch Credit

		SET	1		2	P		
			3		4			
			5	round credit	6			
			7		8			

By the button *Hi Score* we are moving the menu forwards until we see a sign "**switch credit**" pritisnemo tipku *Double Out*. Within this subchoice we can change and determine the number of credits for every impulse accepted by turning the key. With the buttons *Hi Score* and *Scram* we are changing the number of credits according to the impulse, from 1 to 10. The value of the credit is shown on the temporary results display (TEMPORAL). In order to confirm and save the values we have to press the button *Double Out*.

S w I   C h
C r e   I t

5.8.12. Time – Credits

```
SET 1    2P
    3    4
         ...
TIM 5  round  6
CRE 7  credit 8 I T
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**time credits**" pritisnemo tipku *Double Out*. After this option we determinehow many minutes is the value of a single credit. In this case all the GAMES are free of charge but the time is charged GAMES. If a chosen value is 0, GAMES cost as per the price table (See paragraph 5.8.1 tablice 1 i 2). By the buttons *Hi Score* and *Scram* we choose how many minutes is a value od a sinle credit. Possible valuse are from 0 to 30 in single steps. In order to confirm and save the values we have to press the button *Double Out*.

5.8.13. Publicity

```
SET 1    2P
    3    4
Pub 5  round 6 Icit
y   7  credit 8
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**publicity**" and pressing the button *Double Out*, and then the button *Players* to see a current list on a display. Publicity is the option in which the owner has a possibility to display ads from 28 letter or number places. Advertisement is shown in the demo mode. By the button *Double Out* we enter to this option. With the button *Players* we choose the places for the letters or numbers, and with the buttons *Hi Score* and *Scram* we chose the letters or numbers. In order to confirm and save the values we have to press the button *Double Out*.

5.8.14. Lottery

8 8 8 8 8 8 8	S E T	1		2 P		8 8 8 8 8 8 8
8 8 8 8 8 8 8		3		4		8 8 8 8 8 8 8
8 8 8 8 8 8 8		5	round credit	6		8 8 8 8 8 8 8
8 8 8 8 8 8 8	L o t	7		8 E r y		8 8 8 8 8 8 8

By the button *Hi Score* we are moving the menu forwards until we see a sign "**lottery**" pritisnemo tipku *Double Out*. Within this subchoice we can activate the lottery option. If it is activated after every GAME a certain number can be seen on a TEMPORAL display. If the number on a TEMPORAL display is identical to the player's number, one or more, then the player or the players receive a prize credit. A player gets as much as credit as this game is worth eg. If he played 301 he is going to receive a single credit, but if the player has played 701the player is going to receive 3 prize credits. Prize credits are not added to the bookkeeping. With *Hi Score* and *Scram* we choose between 00 and 30. With 00 we disable the lottery option, and with choices of other numbers we choose a percentage of the chance gaining prize credits. Zero 00 and one 01 can be seen on a TEMPORAL display. Then we have completed th lottery programming. In order to confirm and save the values we have to press the button *Double Out*.

5.8.15. Option Remember

8 8 8 8 8 8 8	S E T	1		2 P		8 8 8 8 8 8 8
8 8 8 8 8 8 8		3		4		8 8 8 8 8 8 8
8 8 8 8 8 8 8	O p t	5	round credit	6 O n		8 8 8 8 8 8 8
8 8 8 8 8 8 8	R e m	7		8 M b e		8 8 8 8 8 8 8

By the button *Hi Score* we are moving the menu forwards until we see a sign "**option remember**" by pressing the button *Double Out*. Within this subchoice we can turn on or off automatic memory option which we have chosen for a game during the completion of the GAMES.order to confirm and save the values we have to press the button *Double Out*.

5.8.16. Demo Sound

8	8	8	8	8	8	S E T	1		2 P		8	8	8	8	8	8		
8	8	8	8	8	8		3		4		8	8	8	8	8	8		
8	8	8	8	8	8	D e m	5	round credit	6		8	8	8	8	8	8		
8	8	8	8	8	8	S o u	7		8 d		8	8	8	8	8	8		

By the button *Hi Score* we are moving the menu forwards until we see a sign "**demo sound**" we press the button *Double Out*. In this subchoice we have the opportunity to turn on or off the demo melody when the unit is in the demo mode. In order to confirm and save the values we have to press the button *Double Out*.

5.8.17. Quattro Mode On*

8	8	8	8	8	8	S E T	1		2 P		8	8	8	8	8	8		
8	8	8	8	8	8		3		4		8	8	8	8	8	8		
8	8	8	8	8	8	Q A T	5	round credit	6 R O		8	8	8	8	8	8		
8	8	8	8	8	8	M O D	7		8　O		8	8	8	8	8	8		

By the button *Hi Score* we are moving the menu forwards until we see a sign "**quattro mode on**" by pressing the button *Double Out*. If this option is turned (ON) from the beginning of every game, the quattro option is turned on and if it is if it is desired it can be manually disabled by pressing the button *QUATTRO,* iIt is the same if the option is to be diconnected turned (OFF) at the beginning of every game, and if it is manually enabled and if it is manualy required by pressing the button *QUATTRO*. In order to confirm and save the values we have to press the button *Double Out*.

5.8.18. Return Dart

```
[888888] S E T  [1]  ⚡  [2] P        [888888]
[888888]        [3]  ⚡  [4]          [888888]
[ ][ ][ ][ ][ ][ ]      [    ]        [ ][ ][ ][ ][ ][ ]
[888888] R e t  [5] [round] [6] R n  [888888]
[888888] D a r  [7] [credit][8]      [888888]
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**return dart**" by pressing the button *Double Out.* During the GAMES program it enables a return of an single arrow in every round, , By pressing the both buttons: *Hi Score* and *Quattro*. This option is enabled in order of accidental activation of a tup sensor.. If the chosen value is OFF option returning the arrow is deactivated, and with ON activated In order to confirm and save the values we have to press the button
Double Out.

5.8.19. Bull Value

```
[888888] S E T  [1]  ⚡  [2] P        [888888]
[888888]        [3]  ⚡  [4]          [888888]
[ ][ ][ ][ ][ ][ ]      [    ]        [ ][ ][ ][ ][ ][ ]
[888888] B u l  [5] [round] [6]      [888888]
[888888] V a l  [7] [credit][8] e    [888888]
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**bull vallue**" by pressing the button *Double Out*. By this subchoice adjusting the value of the centre. With the buttons *Hi Score* and *Scram* we are adjusting the values from 01 to 04. There are 4 combinations of the values:

01 – both fields are worth 25

02 – outside field 25, a double 50

03 – both fields 50

04 – outside field 50, a double 100

In order to confirm and save values we press the buttons *Double Out*.

5.8.20. Play Off

```
[8 8 8 8 8 8] S E T 1   ⚡ 2 P [8 8 8 8 8 8]
[8 8 8 8 8 8]       3   ⚡ 4   [8 8 8 8 8 8]
[ ][ ][ ][ ][ ][ ]        [   ]      [ ][ ][ ][ ][ ][ ]
[8 8 8 8 8 8] p l a 5 [round] 6 o f f [8 8 8 8 8 8]
[8 8 8 8 8 8]       7 [credit] 8       [8 8 8 8 8 8]
```

By the button *Hi Score* we are moving the menu forwards until we see a sign "**play off**" by pressing the button *Double Out*. Play off is the option which enables enthusiasm for a better position of the player. In this case the players at the end of the game have the same amout of points that they enjoy, each one with one arrow, and a better player is the one with the highest result. You can play off for any position, for the first, second, .. or the last. JOnly from the end in case of activating the OPTIONS EQUAL, there is a count of arrows from which the player has completed the game. If one player has finished the game with the first, and the other with a second or a third arrow the winner is the the first player and they don't play off if they have the same amout of points (000). With the choice of the value turned ON we activate this option. And with the OFF choice we turn it off. In order to confirm and save the values we have to press the button *Double Out*.

5.8.21. Main Lamp

```
[8 8 8 8 8 8] S E T 1   ⚡ 2 P [8 8 8 8 8 8]
[8 8 8 8 8 8]       3   ⚡ 4   [8 8 8 8 8 8]
[ ][ ][ ][ ][ ][ ]        [   ]      [ ][ ][ ][ ][ ][ ]
[8 8 8 8 8 8] M a i 5 [round] 6 L a m [8 8 8 8 8 8]
[8 8 8 8 8 8]       7 [credit] 8       [8 8 8 8 8 8]
```

 By the button *Hi Score* we are moving the menu forwards until we see a sign "**main lamp**" by pressing the button *Double Out*. This subchoice enables us to adjust the intensity of the lighting from the main halogen lamp which lights up the target. By the buttons *Hi Score* and *Scram* we increase or reduce the intensity from 04 (dark) to 16 (light). In order to confirm and save the values we have to press the button *Double Out*.

5.8.22. Back Light

	S E T	1	⚡	2 P	
		3	⚡	4	
			round credit		
	B a c	5		6	
	L i g	7		8 t	
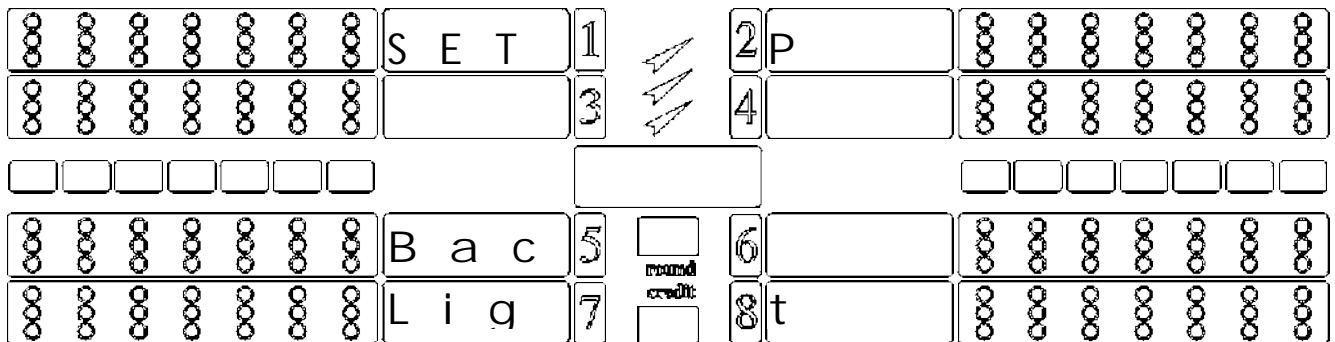
By the button *Hi Score* we are moving the menu forwards until we see a sign "**back light**" by pressing the button *Double Out*. This subchoice enables us to adjust the intensity of the lamps adjusting the intensity of the light lamps around the target and the and the lights on the buttons. The buttons *Hi Score* and *Scram* we increase or reduce the intensity from 02 (dark) to 10 (light). In order to confirm and save the values we have to press the button *Double Out*.

5.8.23. Infra sensor

	S E T	1	⚡	2 P	
		3	⚡	4	
			round credit		
	i n f	5		6 a	
	a d j	7		8 s t	
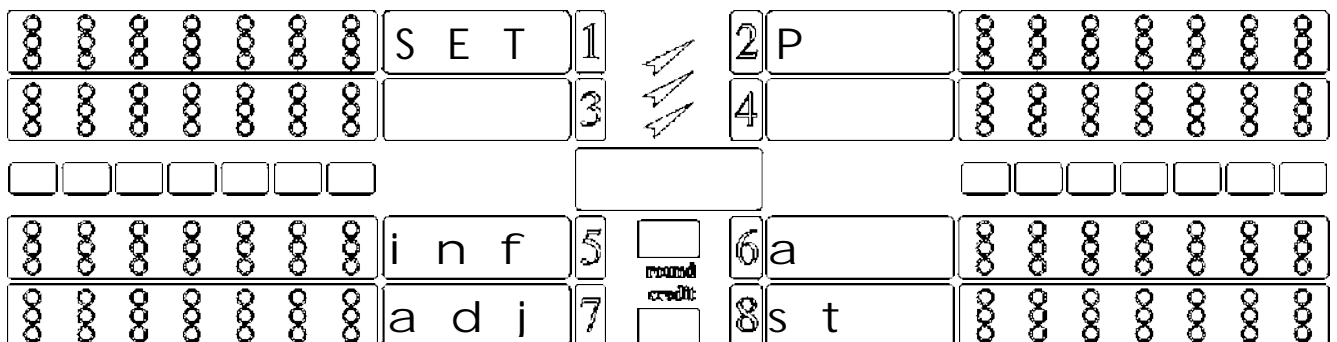
By the button *Hi Score* we are moving the menu forwards until we see a sign "**infra adjust**" by pressing the button *Double Out*. In the frame of this subchoice and deactivating the infrared sensor for the automatic change of the player. The offerings are OPTIONS from 00 to 05 with increments of 1. Option 00 deactivates IR sensor and then during the transfer of the playerduring the   GAMES is performed by the manual depression of the button *Players*. OPTIONS from 01 to 05 activate IR sensor with the various time constants for the automatic change of the players. The fastest option is 01, and the slowest is 05. When we adjusted the desired value by pressing the button *Double Out* we confirm the option and close the option.

5.8.24. Acceptor

	S E T	1	⚡	2 P	
		3	⚡	4	
			round credit		
	A c c	5		6 P t o	
		7		8	
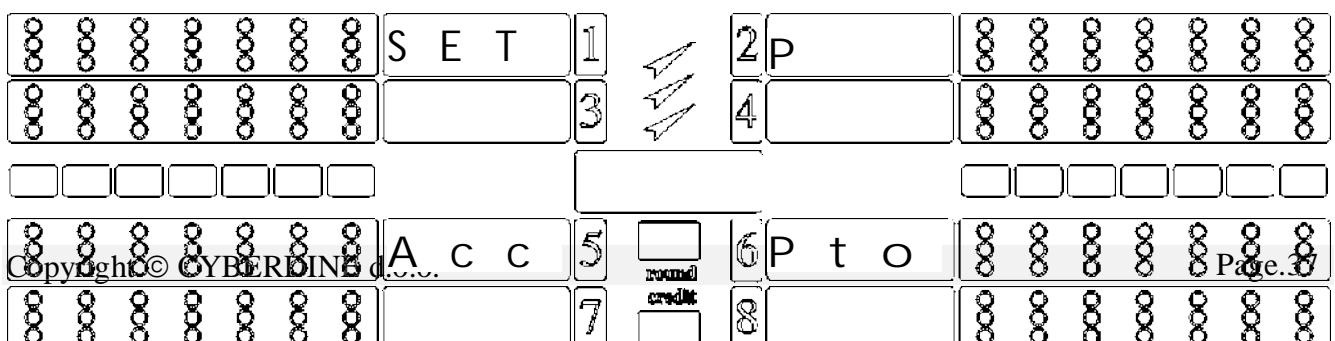
By the button *Hi Score* we are moving the menu forwards until we see a sign "**acceptor**" pritisnemo tipku *Double Out*. Inside this subchoice we can change and confirm the method of coin acceptance (money) in this device. This device is setup up so it can be integrated with all the combinations to accept credits (Key or tokens) which are familiar to us. The speed of money acceptance is changed by the buttons *Hi Score* and *Scram*.   The method of accepting the coins can be seen on the TEMPORAL display, and can be chosebn between the optionsđu opcija 1,2,3. When we have completed the programming of credit acceptance, we can then confirm and save the values we have to press the button *Double Out*.

5.9. SOUND

The sound of the demo melody and the sound effects can be adjusted as desired. In order to amplify the sound you have to turn the P2 trimmer towards the side of the arrow clockwise and in case you want to reduce the sound you will have to turn the trimmer counterclockwise.
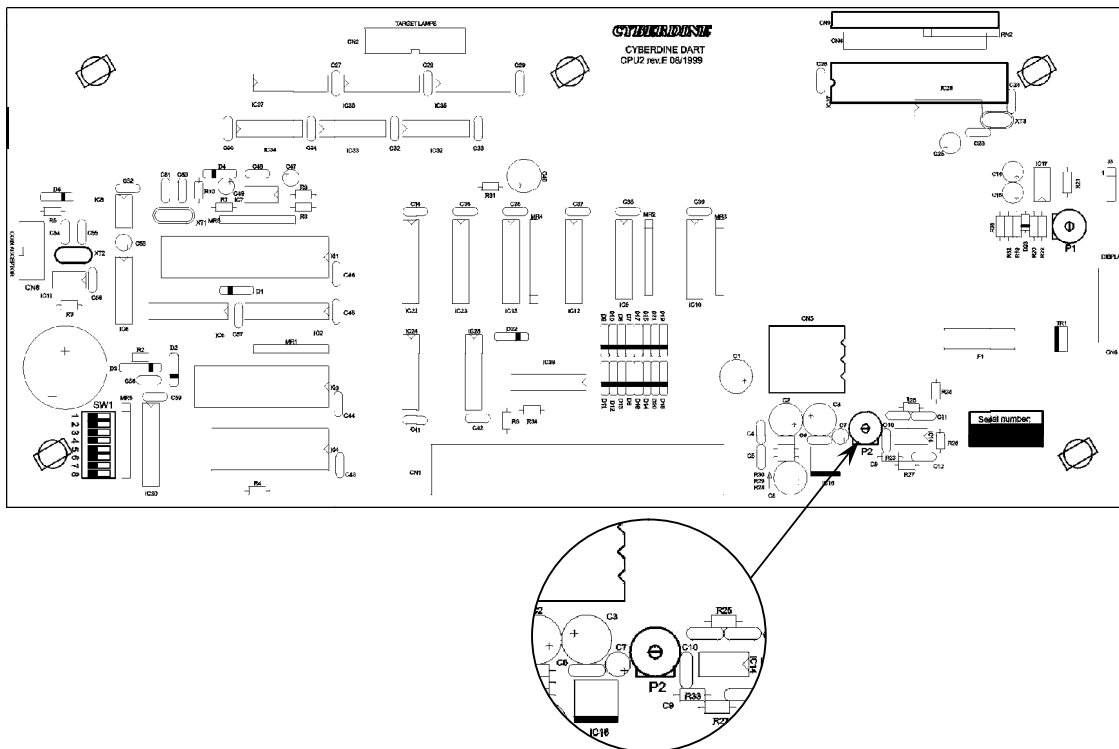
6. GAME RULES
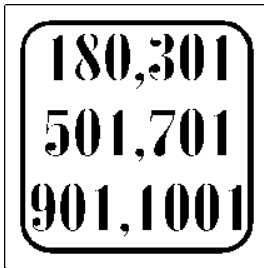
180,301,501,701,901,1001 (pressing the button 180 more than once)
- It is a game for 1 to 8 players playing independently or in the team. The players start a game with 180/301/501/701/901/1001 points. Every arrow deducts points towards 0. The first player who drops to a 0 value is the winner. By going over the zero value is called a BUST and the player returns to the result of a previous round and again tries through a next round. Standard of the rounds are: 180 - 5, 301 -10, 501 - 15, 701 – 20, 901-25, 1001-30 rounds, three arrows per round.

PARCHEESI
- It is a game for 1 to 8 players playing independently or in the team. The players start from the zero value. The game closes exactly on 180, 301... In case of the overturn of the number because of BUST and because of the exiting numbers 180, 301… the overturned nimber is deducted. Eg. The player who has 178 and hits 17 is coming back to a value of 165 (178+17=195; the overturn is 15; 180 – 15= 165) When a layer comes to the exact number of another player, ge returns to a zero value. Standard value for 180 is 5 rounds , and for 301 is 10 rounds, three arrows per round.
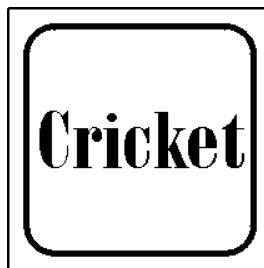
CRICKET
- It is a game for 1 to 8 players playing independently or in the team. The players start from the zero value. The players are hitting the numbers from 15 to 20 and the centre. The number is closed when it is hit 3 times (quadriple value is given for 4 hits, triple valuse is given for 3, double for 2, and a single for 1). By hitting your own closed number we are getting the points close that number. The first player to close all the numbers and the centre and has the highest point score is the winner, and to the other players the filled points are added (3 points to the completed numer 17 gives 51 points, but if he has ony 2 poits filled he gains 34 points) with his total result. The remaining players are status ranged by the total result (the addition of the completed points and the scores). As the player has the higher number he is in a better status. The standards value of the round is 20, three arrows per round.
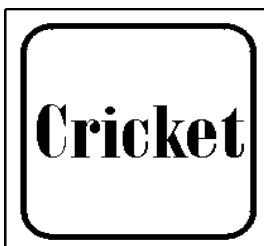
CRICKET CUT THROAT (Cricket + Cut Throat)
- Same rules apply as for the Cricket excepth that the points are given to the players who haven't closed the numbers, and the winner is the player that who closes all the numbers and the centre, and has the lowest result.
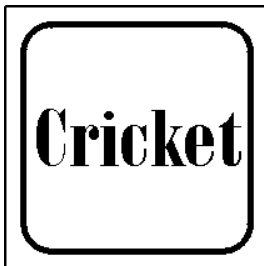
CRICKET MASTER (Cricket + Master Out)
- Same rules apply as for the CUT THROATH CRICKET , in case of hitting the numbers below the value under 15 or the numbers all the players have closed, the points are given to the person who has the next throw By missing the target, it is scored as if the centre is hit.
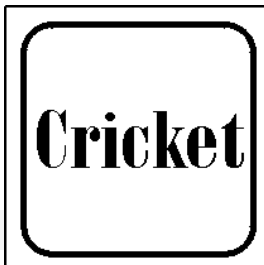
CRICKET KILLER (Cricket + two times Master Out)
- Same rules apply as for the CUT THROAT CRICKET , with the exception that by hitting a number which is a closed one the number of points is given to the competitor depending on how many times they have hit this number eg. If someone has hit a number 10 no one gets 30 points if they have hit number 10 twice and needs only one hit to close the number to get 10 points.

CRICKET PICK-IT (two timesCricket)

- The same rules apply as for the CRICKET and CRICKET with the abovementioned options, with the exception that the players choose themselves the 7 numbers by pressing the segments on the target..
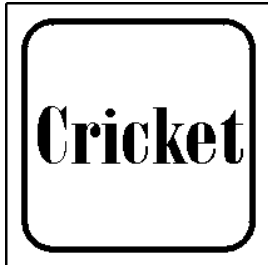
CRICKET RANDOM (3 times Cricket)

- Same rules apply as for CRICKET and CRICKET with the abovementioned options, with the exception that the Dart Board itself chooses 7 numbers to which have to be closed.

CRICKET CRAZY (4 times Cricket)

- The same rules appy as for the CRICKET RANDOM, with the exception that the Dart Board itself chooses 7 numbers which can be closed in the one round and if in that round you don't close a certain number, in the following round the Dart Board will change the values.

HIGH SCORE

- The players start from the zero value. The player with the highest result is the winner. The standard value of the rounds is 7, with 3 arrows per round.

.

LOW SCORE (2 times High Score)

- The players start from the zero value. The player with the lowest result is the winner. In case of a hit outside the target the player is fined by losing 50 points. The standard value of the rounds is 7, with 3 arrows per round.

.

SUPER SCORE (3 times High Score)

- The rules are as for the High Score except that the hits in the double, triple and quadriple segments are counted (only if the QATTRO option is enabled). The standard value of the rounds is 7, with 3 arrows per round.

SPLIT SCORE

- The players start the game with 40 points. The numbers are hit by the following sequence: 15, 16, either double segment, 17, 18, either triple segment, 19, 20, centre. For every number we have 3 arrowsand if the numbers are not hit by 3 tries, the score is halved. In case of a hit we gain the the number of points that we have successfully hit. The winner is the one with the highest amount of points gained. The numer of the rounds is 9 with 3 arrows per the round.

SUPER 100

- The players start from the zero value. The surrounding lightrotate in a clockwise direction and the center is also counted as a score. The player must hit one of the three lit segments or the centre itself. By hitting the first segment you gain 10 points, in the middle 5, and the last with 2 points. Hitting the centre itself contributes to 3 points, whilst the outside of he centre contributed to 1 point. By hitting the couble, triple or quadriple segment you multiply the points by 2, 3 or 4. The winner is the one who is the first to gain 100 points or the player with the highest number of points.

SHANGAI

- The player starts with a zero value. The targeted numbers are from 1 to 20, in an orderly manner, and in the end to hit the centre. The player cannot hit another number until he hits the first onei. The winner is the one with the highest number f the points under the condition that the points dare calculated like in the a '01 GAMES. SHANGAI is the current winning streak, and is achieved by a hit on the single, double, and triple field in one round (eg. 3 in the double, 4 in the single and 5 in the ripple is the SHANGAI). The value of the round is 7, three arrows per round.

SOLO 301, SOLO HI SCORE
-The game is for a single player only (rules as the common GAMES) with the exception that the device gives a Handicap Number from 00 to 99 which determines the level of the player.

PUB GAME
- Players start the game from zero. The game has only one round (three arrows). On the display number 10is shown and it is decreasing towards zero. The value of the hit of every arrow is multiplied by the current number on the display. As the player more accurately and quickly throws an arrow, the result becomes beter. The winner is the player with the highest number of the points.

SCRAM
- Game for 2 to 8 players. Every player throws 6 arrows except the first one on the first round, he throws 3 arrows in the first round (only on the first round) and ends with 3 arrows (only in the last round) First player starts the game as a STOPER (3 arrows) and closes the the numbers to the second player. Second player starts as a SCORER (3 arrows) and collects points and becomes a STOPER (3 arrows) and closes numbers to the third player. And the third player SCORER (3 arrows) iand collects points, and then becomes a STOPER (3 arrows) and closes points to the following player. Fourth closes to the fifth, fifth to the sixthe and so on unti the eighth who closes the first. Winner of the game is the one with the highest point score. Value of the round is z, three arrows per round.

MARATHON (2 times Scram)
- Players start from zero. Aims are lined to the centre of the target, then the numbers from 20 to 1. The shots are valid in the double segment. The winner of the game is the player who first reaches to number 1 or the one with the highest point score. Value of the round is 30, three arrows per round.

MINI MARATHON (3 times Scram)
- Same rules as for MARATHONA but only aiming for the centre and numbers from 20 to 10, and the game lasts for 15 rounds.

ROULETTE
- Players start from zero. On the start of the round, the unit determines the number for which all of the players shoot for in this round. A hit is scored by a single 1 point, a double 2 points, triple 3 points, and quadriple by 4 points. Winner of the game is the one with the highest point score. Value of the round is 7, three arrows per round are allowed.

ROULETTE DOUBLE
- Same rules as for the Roulette, but the points are given by hitting the double segments.

BASEBALL
- Players start from zero. They throw the numbers on this round, eg. In the first round they aim for number 1, in the second aim for number 2... Single shot is one point, double 2 points, triple 3 points, and a quadriple 4 points. The winner is the one with the highest number of points.
Valie of the round is 9, three arrows per round.

Double Out

Double In Cut Throat

Master Out

Equal End

Equal End

Parcheesi Run&Gun

DOUBLE IN (180 - 1001)
- subtracting of the points when a double segment is hit by either number or double centre.

CUT THROAT (CRICKET)
- Option for CRICKET, points are given to the players who didn't close the number, the winner is the player with all of the numbers closed and the least number of points.

DOUBLE OUT (180 - 1001)
- The player has to complete the game with the hit in the double segment or double centre.

MASTER OUT (180 - 1001)
- The player must complete the game with a hit on a double, triple or quadriple segment (if the QUATTRO option is enabled).

EQUAL (180 - 1001)
- Fair Play option enables the players, that all players play the same number of rounds. When a certain player completes the game, other players play this round till the end of the game.

END (180 - 1001)
- Fair Play option enables the players to play the game to the last roung or when all the players don't finish the game.

RUN AND GUN
- Valid for GAMES 180 - 1001 and HIGH SCORE.
The time availability is from 30 to 180 seconds depending on choice of the GAMES without round limitations. The winner is the one who in the shortest period of time completes the game but if he/she didn't complete the game within the specified time frame the winning person is the one with the lesser point score. In the High Score game the winner is the one with the highest point score.
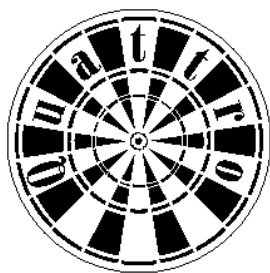
QUATTRO
- In this option we include quadriple segment.

REMARK: During the GAMES time the player can stop an individual game and strart from the beginning the same game or start another game by simultaneously pressing both buttons at the same time: _High Score_, _Super 100_ i _Roulette Baseball_

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7. GAME COMBINATIONS

Procedure of the Choice games and the required options it is simplified to the ultimate borderline to simplify the Choice games. That is how during the beginning (after inserting the credits) the lights of all of the games are lit up. When the game is chosen the lights on the buttons are lit only on the required buttons which show the desired OPTIONS for this game.

GAMES Name
Number of Credits
OPTIONS
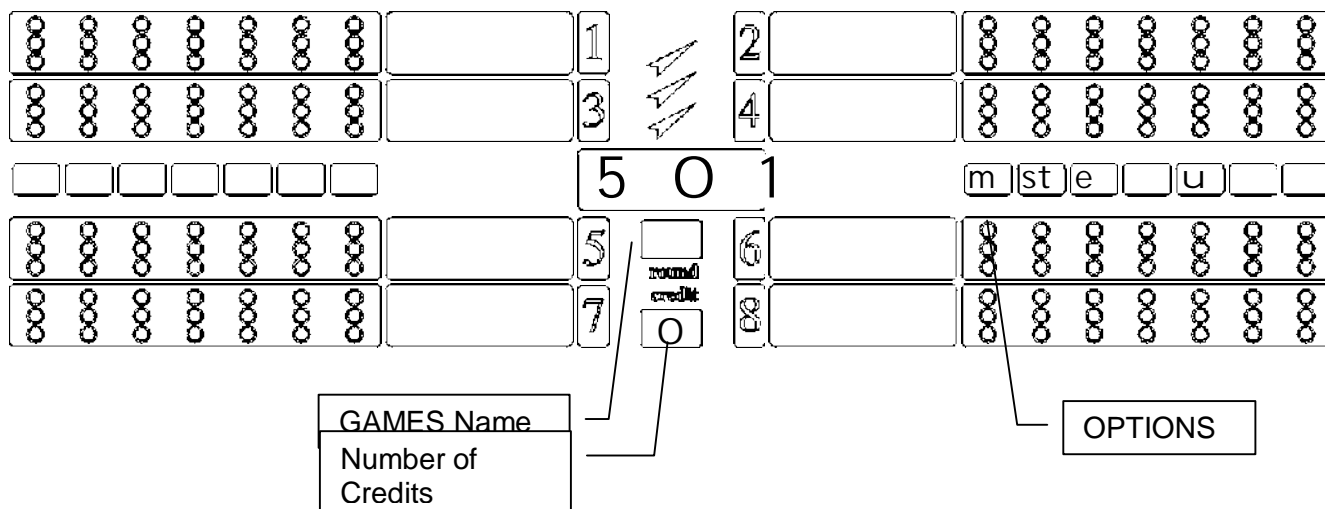
When the credit is inserted, (bank notes, coins or tokens žetoni or via the key – in our example shown above with O5 credits) buttons which show GAMES start lighting. Some buttons offer possibility of multiple choices, so by pressing a certain button a few times display the changes of the games are shown on TEMPORAL display. In our example by pressing the button 3 times *180, 301, 501, 701, 901, 1001* the name GAMES shows on the TEMPORAL DISPLAY (in our example 5O1). When the chosen game stays lit the buttons show OPTIONS for this game. OPTIONS can be chosen until the game starts. In our example it is important to press two out buttons *Solo 301, Solo Hi Score, Pub Game* and the chosen option stays on the CRICKET display. (In our example master out).

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| 180,301 501,701 901,1001 | Parcheesi Run&Gun | Team | Equal End | Master Out | Double In Cut Throat | Double Out |
| Hi Score Low Score Super Score | Super 100 Split Score | Solo 301 Solo Hi Score Pub Game | Scram Marathon | Shangai | Cricket | Roulette Baseball |

GAMES	OPTIONS	QUATTRO*
180 301 501 701 901 1001	-DOUBLE IN -DOUBLE OUT -DOUBLE IN/DOUBLE OUT -DOUBLE IN/MASTER OUT -MASTER OUT -DOUBLE IN/TEAM -DOUBLE OUT/TEAM -DOUBLE IN/DOUBLE OUT/TEAM -DOUBLE IN/MASTER OUT/TEAM -MASTER OUT/TEAM -DOUBLE IN/EQUAL -DOUBLE OUT/EQUAL -DOUBLEIN/DOUBLE OUT/EQUAL -DOUBLE IN/MASTER OUT/EQUAL -MASTER OUT/EQUAL -DOUBLE IN/TEAM/EQUAL -DOUBLE OUT/TEAM/EQUAL -DOUBLE IN/DOUBLE OUT/ -TEAM/EQUAL -DOUBLE IN/MASTER OUT/ -TEAM/EQUAL -MASTER OUT/TEAM/EQUAL -DOUBLE IN/END -DOUBLE OUT/END -DOUBLE IN/DOUBLE OUT/END -DOUBLE IN/MASTER OUT/END -MASTER OUT/END -DOUBLE IN/TEAM/END -DOUBLE OUT/TEAM/END -DOUBLEIN/DOUBLE OUT/ TEAM/END -DOUBLEIN/MASTER OUT/TEAM/END -MASTER OUT/TEAM/END -TEAM -EQUAL -END -TEAM/EQUAL -TEAM/END -RUN AND GUN -RUN AND GUN DOUBLE IN -RUN AND GUN DOUBLE OUT -RUN AND GUN DOUBLE IN/OUT -RUN AND GUN DOUBLE IN MASTER OUT -RUN AND GUN MASTER OUT	**FOR ALL THE GAMES IT IS POSSIBLE TO CONNECT THE QUATTRO OPTION EXCEPT FOR MARATHON AND MINI MARATHON**

GAMES	OPTIONS	QUATTRO*
180 301 501 701 901 1001	-PARCHEESI -PARCHEESI DOUBLE IN -PARCHEESI DOUBLE OUT -PARCHEESI DOUBLE IN/OUT -PARCHEESI DOUBLE IN MASTER OUT -PARCHEESI MASTER OUT -PARCHEESI DOUBLE IN TEAM -PARCHEESI DOUBLE OUT TEAM -PARCHEESI DOUBLE IN/OUT TEAM -PARCHEESI DOUBLE IN MASTER TEAM -PARCHEESI MASTER TEAM -PARCHEESI DOUBLE IN EQUAL -PARCHEESI DOUBLE OUT EQUAL -PARCHEESI DOUBLE IN/OUT EQUAL -PARCHEESI DOUBLE IN MASTER OUT EQUAL -PARCHEESI MASTER OUT EQUAL -PARCHEESI DOUBLE IN TEAM EQUAL -PARCHEESI DOUBLE OUT TEAM EQUAL -PARCHEESI DOUBLE IN/OUT TEAM EQUAL -PARCHEESI DOUBLE IN MASTER OUT TEAM EQUAL -PARCHEESI MASTER OUT TEAM EQUAL -PARCHEESI DOUBLE IN END -PARCHEESI DOUBLE OUT END -PARCHEESI DOUBLE IN/OUT END -PARCHEESI DOUBLE IN MASTER OUT END -PARCHEESI MASTER OUT END -PARCHEESI DOUBLE IN TEAM END -PARCHEESI DOUBLE OUT TEAM END -PARCHEESI DOUBLE IN/OUT TEAM END -PARCHEESI DOUBLE IN MASTER OUT TEAM TEAM END -PARCHEESI MASTER OUT TEAM END -PARCHEESI TEAM -PARCHEESI EQUAL -PARCHEESI END -PARCHESSI TEAM EQUAL -PARCHEESI TEAM END	**FOR ALL THE GAMES IT IS POSSIBLE TO CONNECT THE QUATTRO OPTION EXCEPT FOR MARATHON AND MINI MARATHON**
HI SCORE		
LOW SCORE		
SUPER SCORE		
PUB GAME		
SUPER 100		
SOLO HI SCORE		
SOLO 301		
SCRAM		
MARATHON		**QUATTRO OPTION NOT POSSIBLE TO CONNECT**
MINI MARATHON		
SHANGHAI		**FOR ALL THE GAMES IT IS POSSIBLE TO CONNECT THE QUATTRO OPTION EXCEPT FOR MARATHON AND MINI MARATHON**
CRICKET	CUT-THROAT TEAM CUT-THROAT/TEAM MASTER MASTER/TEAM	
ROULETTE	DOUBLE	
BASEBALL		

* - models with QUATTRO option

8. SPARE PARTS

Line number	Serial part number	Description
	ELECTRONIC PARTS	
1.	73001	Printed circuit board CPU - complete
2.	73012	Display - complete
3.	73004	Printed circuit board under the target
4.	34002	Power supply
5.	73009	TUP sensor - complete
6.	73013	Infra sensor - complete
7.	65005	Speaker
8.	32003	Button
9.	65006	Counter
10.	71001	Chip slot
11.	71000	Plastic mask for a chip slot
12.	73005	Wire form
13.	64002	Cable with a 20 pin Connector
14.	64003	Cable with a 14 pin Connector
15.	64008	Cable with a 10 pin Connector
16.	64001	Wire Cable 220 V
17.	62019	Cable carrier

Line number	Serial part number	Description
	TARGET	
1.	93001	Target - complete
2.	72002	Target – complete with the plastic
3.	62005 - 1	Single sector - red
4.	62005 - 2	Single sector - blue
5.	62006 - 1	Double sector - redi
6.	62006 - 2	Double sector - plavi
7.	62007 - 1	Triple sector - red
8.	62007 - 2	Triple sector - blue
9.	62008	Bullseye outer ring - blue
10.	62009	Bullseye inside - red
11.	62010	Spine
12.	62001	Foil for the target
13.	61001	Rubber for the target
14.	62003	Null sector 1/5
15.	51004	Target background
16.	51005	Wooden circle
17.	43000	Screw 5x60 mm
18.	44002	Support board 5x15x1,5 mm
19.	43023	Screw 4,8x16 mm
20.	43006	Screw 3x12 mm
21.	42004	Wing nut M5

LIGHTS		
Line number.	*Serial part number*	*Description*
1.	65013	Carrier for the halogen light - complete
2.	65001	Neck for the halogen lamp
3.	41000	Halogen lamp neck carrier
4.	41001	Halogen lamp carrier
5.	65002	Halogen Light
6.	65012	Light T5
7.	65016	Light T10 (for buttons)
8.	65011	Neck for a lamp T5

MECHANICAL PARTS		
Line number.	*Serial part number*	*Description*
1.	51003	Box
2.	41013	Hinges for the black box
3.	51006	Door - complete
4.	51007	Door - wooden
5.	62030	Door - plexi
6.	41005	Hinges for the Door
7.	41006	Carrier hinges
8.	41012	Legs
9.	43034	Screw M8x40
10.	42003	Nut M3
11.	44001	Support M3
12.	43001	Screw M6x30 mm
13.	43003	Screw 4,2x13 mm
14.	43014	Screw 3x12 mm
15.	62016	Plexi – game rules
16.	62029	Plexi ispod halogene lampe
17.	62031	Plexi lower part – black box
18.	71000	Plastic for the Token
19.	63000	Snaplock - contact
20.	63001	Snaplock - long
21.	63002	Snaplock - short
22.	65008	Door from the cash box

9. PROBLEMS AND SOLUTIONS (TROUBLESHOOTING)

Although the quality of this unit is strictly controlled and we from CYBERDINA can guarantee its unparallel functionality from the point of dispatchment from the factory (to which is stated in the warranty statement of our products), there is always a probability that something will fail during the transport. Although the unit is with movable parts, it is not spared from the consumables such as (lights, switches, …). On the unit there are certain items that a lay person can fix. Here we have a table which can be used to help to identify the fault which in turn can determine a fault which could be the most possible cause of the dart board not to function properly. In either case you can turn to our Service Department.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Dart Board doesn't work	Dart Board is not connected on power cable	Connect the Dart Board via a Cable which is located in the cash box compartment.
	Voltage setting is not appropriate	Check the voltage measurements which comply accordingly to which are written in the User's Guide instructions on Page. 3.
	Switch set on OFF position	Turn on the switch on the ON (1) position. See Diagram 2.
	Connector on the power supply is disconnected	**Turn off unit priror servicing!** Open the front door and check leads and Connector which comes from the Power Suply. See also Diagram 3.
	Blown fuse	Refer to Service Department.
Dart Board works but has no sound or the sound is very weak	Dart Board in tournament mode	See paragraph 5.6.
	Trimer P2 improperly set	See paragraph 5.9.
	Disconnected cable from the Speaker	Refer to Service Department.
	Burnt out Speaker	Refer to Service Department.
Display doesn't work	Connector from the display is disconnected	**Turn off unit priror servicing!** Open the front door and check leads and Connectorwhich come from CPU board to the display. See also Diagram 3.
Some globes do not work (See paragraph 5.1.2. for the light test)	Lights which surround the target are switched off	See paragraph 5.8.18.
	Burned lights	**Turn off unit priror servicing!** Open the front door and change the burnt light. See paragraph 8 for spare parts.
	Dart board in tournament mode	See paragraph 5.6.
Halogen Light doesn't work	Light turned off	See paragraph 5.8.17.
	Disconnected Connector on halogen light	**Turn off unit priror servicing!** Dismantle Plexi under halogen light and check the neck.
	Faulty or burned fuse	**Turn off unit priror servicing!** Check the fuse F1 which is located on the CPU printed circuit board.

PROBLEM	POSSIBLE CAUSE	SOLUTION
	Burnt Light	See paragraph 8 for spare parts.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Certain sectors on the target do not function	Broken points block the target	See paragraph 5.1.1. for target test. See paragraph 4.2. for cleaning the target. See paragraph 8 for spare parts.
Some buttons do not function	Broken button	See paragraph 8 for spare parts.
	Faulty switch	Refer to Service Department.
Dart board "steals" arrows	TUP sensor too sensitive	See paragraph 5.1.5.
Automatska izmjena igrača ne radi ispravno	Infra sensor is wrongly set	See paragraph 5.1.4.
Chip slot doesn't function properly	New type of coin or chip	Refer to Service Department.

10. CONNECTORS

Different parts of the unit are mutually connected via Cables and Connectors. In order to simplify the identity between certain wires (although the exchange is practically impossible because of using the wires of various lengths and various connectors) on the following tables Cables, Connectors and positions to where they are connected, are provided as follows:

| CN 8 SLOT | CN 5 POWER SUPPLY | J3 TUP SENSOR |

| CN 2 LIGHTS WHICH SURROUND THE | CN 9 TARGET (QUATTRO) | CN 6 DISPLAY |

| CN 1 PERIPHERAL UNITS | CN 9 TARGET | |
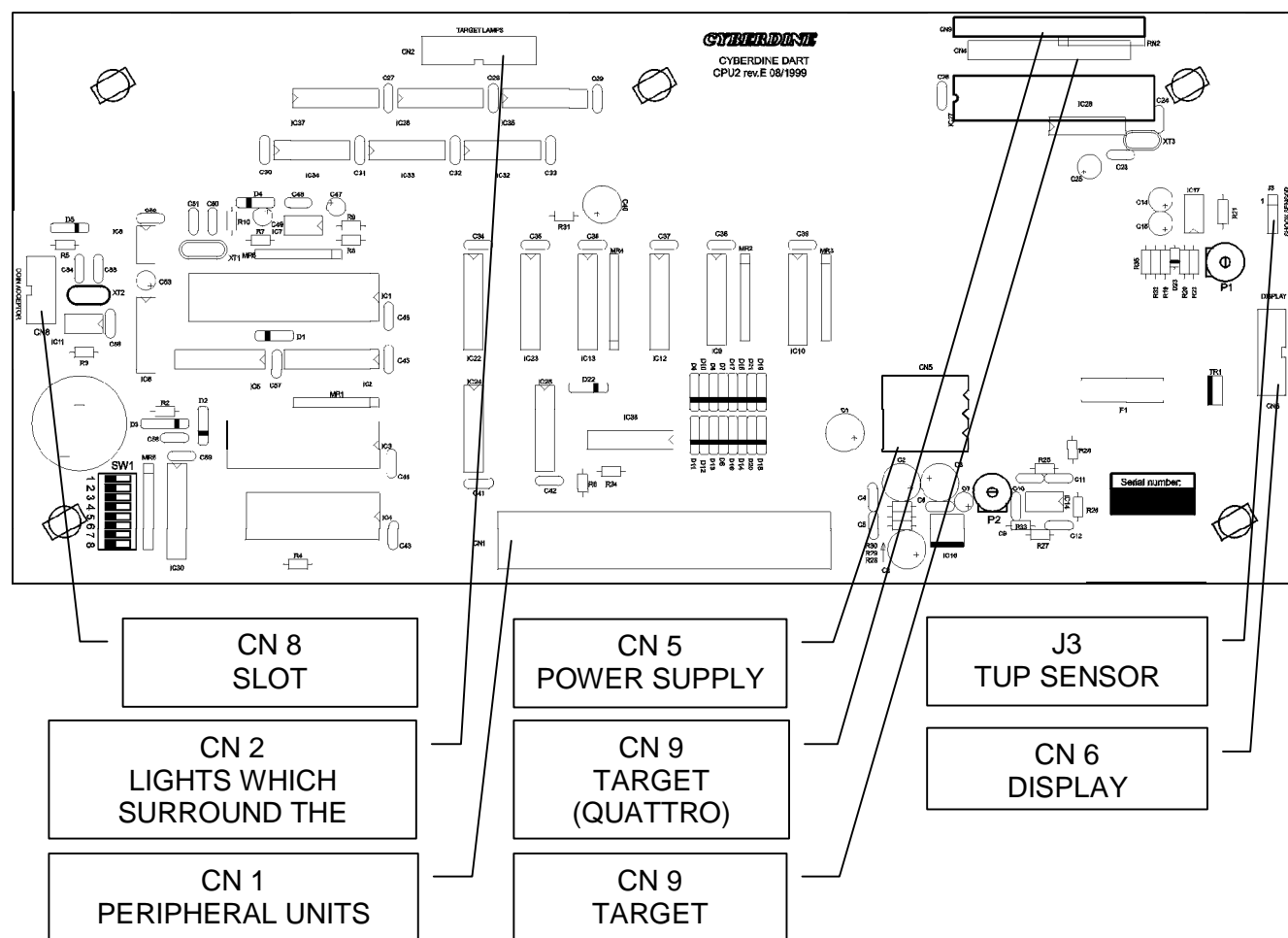
CN 1 – Connector 62 pole between CPU printed circuit board and peripheral units

Pin	Wire Colour	Connection
1. (A1)	black	Light ROULETTE BASSEBALL
2. (A2)	brown	Light PARCHESSI
3. (A3)	pink	Light 180, 301, 501, 701, 1001
4. (A4)	orange	Light PLAYER
5. (A5)	purple	Light TEAM
6. (A6)	brown-orange	Light CRICKET
7. (A7)	blue	Light SHANGAI ili SCRAM (model QUATTRO)
8. (A8)	gallo	+ 12V on lights
9. (A9)	not connected	not connected
10. (A10)	black-white	Counter
11. (A11)	not connected	not connected
12. (A12)	not connected	not connected
13. (A13)	black	Counter
14. (A14)	red	+ 5V infra senzor
15. (A15)	black-grey	Counter
16. (A16)	black	GND buttons
17. (A17)	yellow-green	Button CRICKET
18. (A18)	red-white	Button MASTER OUT
19. (A19)	red-orange	Button TEAM
20. (A20)	brown-white	Button LOW/HI/SUPER SCORE
21. (A21)	green-white	Button PLAYERS
22. (A22)	blue-white	Button DOUBLE IN
23. (A23)	purple-white	Button SUPER 100
24. (A24)	not connected	not connected
25. (A25)	yellow	+ 12V
26. (A26)	yellow	+ 12V
27. (A27)	not connected	not connected
28. (A28)	black	GND
29. (A29)	black	GND
30. (A30)	red	+ 5V
31. (A31)	red	+ 5V
32. (A32)	grey	Speaker
33. (C1)	yellow	Light SOLO 301/HI SCORE
34. (C2)	grey	Light SUPER 100
35. (C3)	white	Light SCRAM/MARATHON ili QUATTRO
36. (C4)	blue-orange	Light PLAYER
37. (C5)	green	Light DOUBLE IN/CUT THROAT
38. (C6)	red-grey	Light MASTER OUT
39. (C7)	red	Light LOW/SUPER/HI SCORE
40. (C8)	yellow	+ 12V Lights
41. (C9)	not connected	not connected
42. (C10)	blue	Snaplock with contact
43. (C11)	black	Snaplock with contact GND

Pin	Wire Colour	Connection
44. (C12)	yellow	+ 12V counters
45. (C13)	brown-white	Infra sensor
46. (C14)	black	Infra sensor GND
47. (C15)	green	Light EQUAL
48. (C16)	not connected	not connected
49. (C17)	grey-white	Button 180, 301, 501, 701, 1001
50. (C18)	pink-blue	Button PARCEESI
51. (C19)	orange-white	Button SCRAM
52. (C20)	white-orange	Button SHANGAI ili QUATTRO (opcija QUATTRO)
53. (C21)	brown	Button ROULETTE/BASEBALL
54. (C22)	red	Button DOUBLE OUT
55. (C23)	orange	Button SOLO 301/HI SCORE
56. (C24)	yellow	Button EQUAL
57. (C25)	not connected	not connected
58. (C26)	yellow	+ 12V bill acceptor
59. (C27)	red	Bill acceptor
60. (C28)	black	Bill acceptor GND
61. (C29)	not connected	not connected
62. (C30)	red	+ 5V
63. (C31)	red	+ 5V
64. (C32)	black	Speaker

CN 2 – Connector 20 pole between CPU printed circuit board and printed circuit board on which the lights surround the target. "Flat" Cable 20 grey wire.

CN 5 – Connector 9 pole between power supply and printed circuit board CPU.

Pin	Wire colour	Connection
1.	black	GND power supply
2.	black	GND power supply
3.	black	GND power supply
4.	black	GND power supply
5.	red	+ 5V power supply
6.	yellow	+ 12V power supply
7.	brown	On halogen light
8.	red	+ 5V power supply
9.	yellow	+ 12V power supply

CN 6 - Connector 14 pole between CPU printed circuit board and display. Cable "flat" 14 wire grey.

CN 8 - Connector 10 pole between CPU printed circuit board and slot. Cable "flat" 10 wire grey.

CN 9 - Connector 16 pole between CPU printed circuit board and target. Cable "flat" 16 wire clear.

CN 9 - Connector 20 pole between CPU printed circuit board and target. Cable "flat" 20 wire clear.*

* - models with QUATTRO option

11. BILL ACCEPTOR*

* - if installed

Bill acceptor is located behind the metal door (which differ from the standard workmanship) space for the cash box, connected with the appropriate cable on the printed circuit borad, CPU and serves as a token but for the notes only.

Acceptors which can be installed on Cyberdine dart board can be programmed to accept the majority of bank notes which are currently available. The only requirement is to specify which kind of bank notes the unit has to be configured for.

Bank note can be inserted in either direction or side. Do not bend the bank notes.
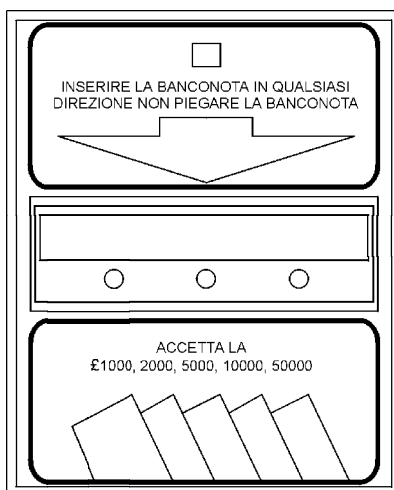
Bill acceptor functions can be set by the DIP switches which are located on the side. Functions of specific switches are shown on the following table. The currency mark is provisional:

	FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10
*	1 impulse / £1000	OFF	OFF	OFF							
	2 impulses / £1000	OFF	OFF	ON							
	3 impulses / £1000	OFF	ON	OFF							
	4 impulses / £1000	OFF	ON	ON							
	5 impulses / £1000	ON	OFF	OFF							
	10 impulses / £1000	ON	OFF	ON							
	20 impulses / £1000	ON	ON	OFF							
	100 impulses / £1000	ON	ON	ON							
	Quick output impulse (Lo=50ms, Hi=100ms)				ON						
*	Slow output impulse (Lo=50ms, Hi=300ms)				OFF						
	Inhibit low level (LOW)					ON					
*	Inhibit high level (HIGH)					OFF					
*	Accept £1000						ON				
	Reject £1000						OFF				
*	Accept 2000							ON			
	Reject £2000							OFF			
*	Accept £5000								ON		
	Reject £5000								OFF		
*	Accept £10000									ON	
	Reject £10000									OFF	
*	Accept £50000										ON
	Reject £50000										OFF

* - manufacturer's default settings