

# PAC-MAN ROLLER

## SERVICE MANUAL



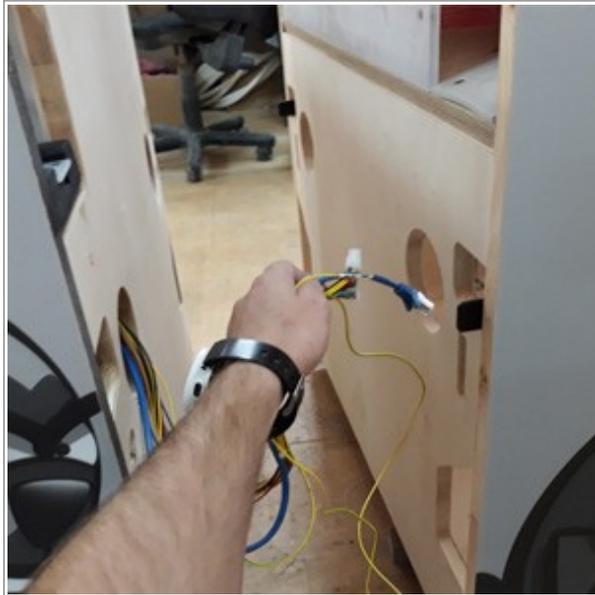
# PAC-MAN ROLLER

## PAC-MAN ROLLER - ASSEMBLY MANUAL

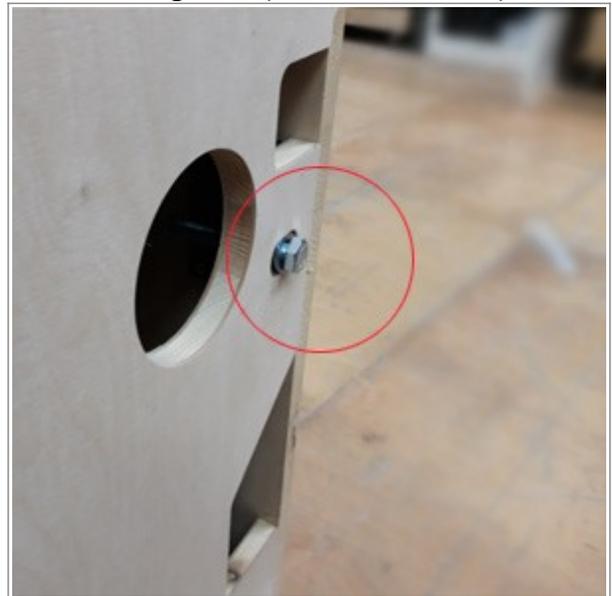
1. Unpack the machine (two parts: playfield with holes and bowling alley where you can find the balls and keys)



2. Put the wire harness from playfield through the hole in the alley

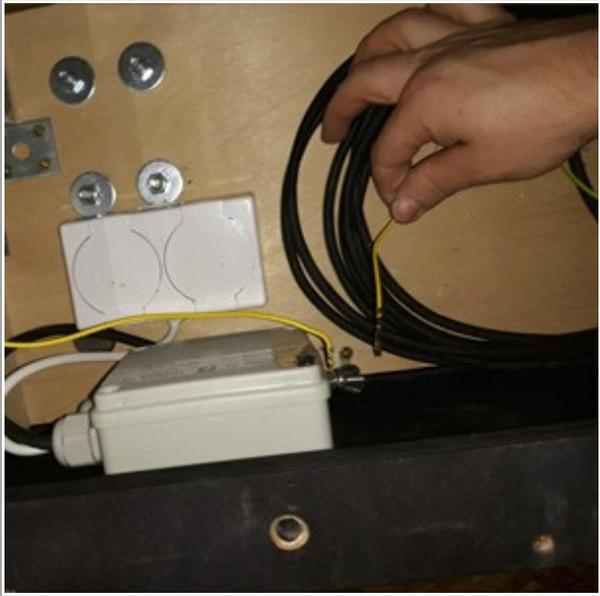
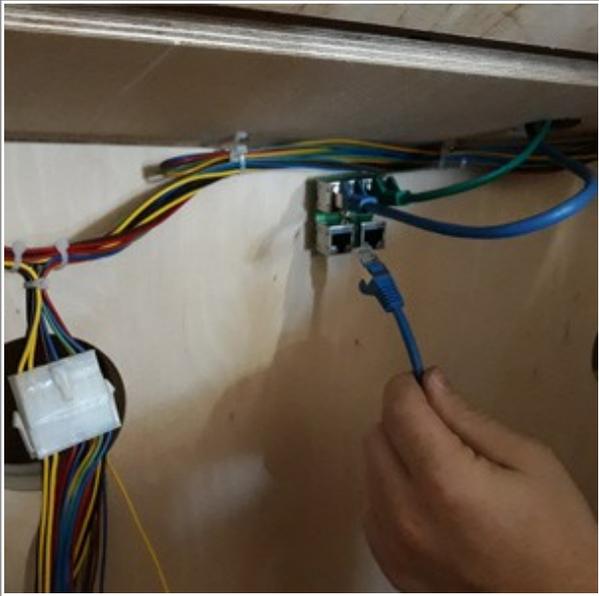
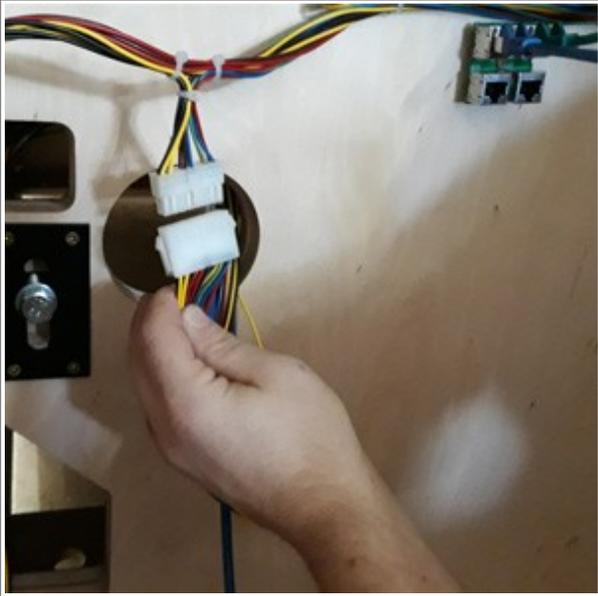


3. Lift the plexi front and connect both parts of the machine together (2 screws M10x80)

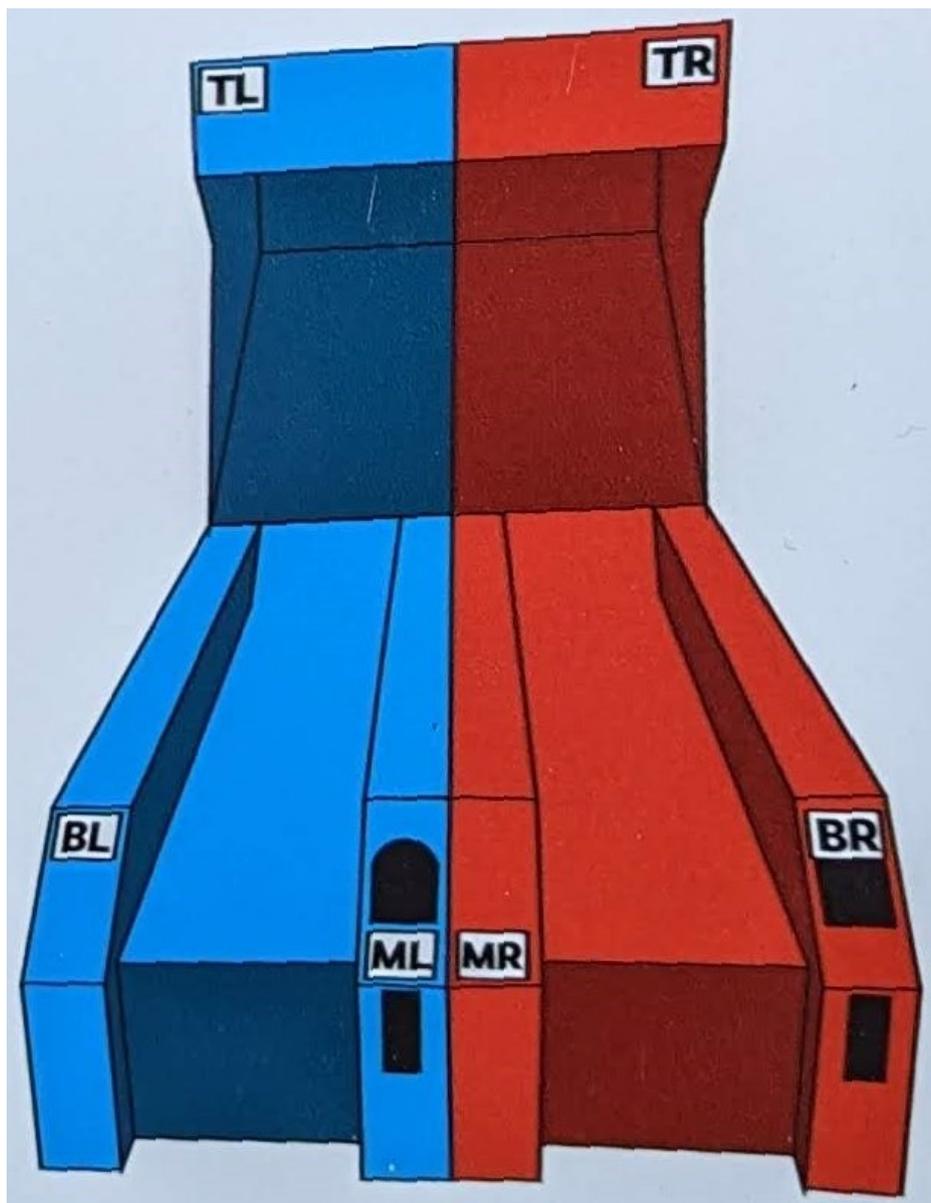


4. Connect matching plugs to each other and ethernet cable (blue) to signal splitter board (picture).

Connect the grounding cable to electric box



5. If you have two machines that are standing next to each other you can connect them using linking kit. If you ordered two machines it is probably included in one of the machines. On the packing and inside each machine there should be a sticker indicating if a machine should be placed on the left or right side



5a. Linking displays – Top displays (TL and TR) and the common side display (ML and MR) can be linked together by connecting display drivers board with a 4pin cable included in the linking set. There should be holes bellow ML/MR and above TL/TR which allows you to lead the cable between boards.

5b. Linking mainboards (NEW, since 2023)– You can connect both mainboards (located behind front door in each machine) to each other. They should be connected using back rightmost connector on mainboard (when looking from front).

Linking mainboards gives you – Synchronized music, jackpot and record

5c. Linking mainboards using KL board (LEGACY) – You can connect both mainboards to each other using KL board. Boards should be already inside machines, all you need to do is connect ethernet cable between them (see image below)

Linking mainboards gives you – Synchronized jackpot and record

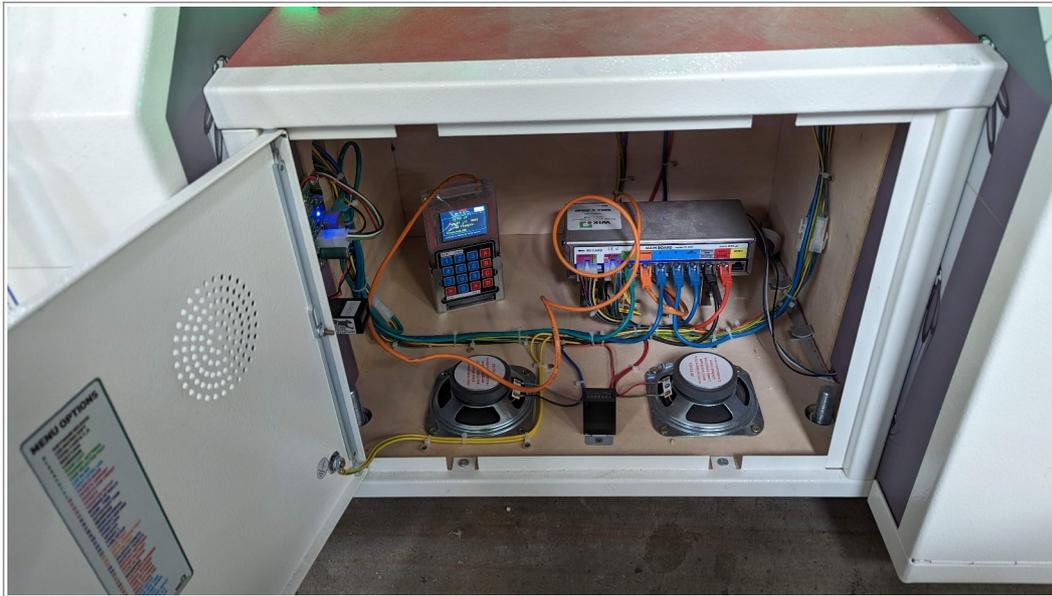


# SYSTEM SOFTWARE DESCRIPTION:

*The machine is pre-set and ready to work.*

**WARNING – This instruction is for machines made after 2023. If you have older machines please ask for manual or software update from your Bandai Namco sales/service representative.**

To change settings, open the main metal door in front of machine and take out the keyboard.  
You can enter the menu by pressing **A** button for 5 seconds (you will see #'s appear on the screen) until you are asked to enter the PIN code.  
Enter **factory default PIN code – 1111** (gives you access to the programming menu).



You can move to the option you want to set (e.g. 01, 05, 17) by pressing **B** (up) and **C** (down) buttons. To enter and change the option press **#** until the the position you want to change starts blinking.

To change value use **B** and **C** or **0 – 9** numeric buttons. By pressing **#** you confirm the changes and the new values of the chosen option.

Use buttons **B** and **C** if you want to go to another option. To confirm all changes and exit from the programming menu press **A** button for 5 sec until “EXITING SETUP” appears on the display.  
Keyboard navigation listed below: (also found on the back of the keyboard)

## KEYBOARD:

- A** – enter/exit programming menu
- B** – navigating in the programming menu (up)
- C** – navigating in the programming menu (down)
- #** - entering and navigating in the submenu (bottom lines with values you want to change)
- D, \*** - exit (escape) from submenu

## PROGRAMMING MENU:

<b>OP 00</b>	<b>SOFTWARE RELEASE</b>	<ul style="list-style-type: none"> <li>• PG - Main board software version</li> <li>• KL – Linking board software version (LEGACY)</li> <li>• TK – Ticket board software version</li> <li>• RD – programming controler software version</li> <li>• FP – coin and buttons board software version (LEGACY)</li> </ul>
<b>OP 01</b>	<b>LED MATRIX SOFT.</b>	<ul style="list-style-type: none"> <li>• M1 – Legacy display software version (LEGACY)</li> <li>• VP – Audio player software version</li> <li>• PS – Legacy display board software version (LEGACY)</li> <li>• KM – Ethernet cable concentrator board software version</li> </ul>
<b>OP 02</b>	<b>TOTAL CASH</b>	<ul style="list-style-type: none"> <li>• non resettable counter</li> <li>• T_1 – ticket counter from ticket dispenser 1</li> <li>• T_2 – ticket counter from ticket dispenser 2 (LEGACY)</li> <li>• IMP – impulse counter</li> <li>• T+T – Total ticket counter from both dispensers</li> </ul>
<b>OP 03</b>	<b>DAILY CASH</b>	<ul style="list-style-type: none"> <li>• resettable counter (press # to reset)</li> <li>• T_1 – ticket counter from ticket dispenser 1</li> <li>• T_2 – ticket counter from ticket dispenser 2 (LEGACY)</li> <li>• IMP – impulse counter</li> <li>• T+T – Total ticket counter from both dispensers</li> </ul>
<b>OP 04</b>	<b>LANGUAGE</b>	<ul style="list-style-type: none"> <li>• available languages : English, German, Polish</li> <li>• default - English</li> </ul>
<b>OP 05</b>	<b>GAME COST</b>	<ul style="list-style-type: none"> <li>• IMP – Price of a game - amount of impulses sent from the coin acceptor necessary to get 1 credit/game.</li> <li>• options: (01-99) ; 00- free play (coin acceptor doesn't accept coins, press START button to play a game)</li> </ul>
<b>OP 06</b>	<b>CHANNEL SETTINGS</b>	<ul style="list-style-type: none"> <li>• Channel values of coin acceptors working in a parallel mode</li> <li>• bonus – impulse which is not counted on counter</li> <li>• factory settings for PLN</li> <li><b>CH 01</b> impulse 01 bonus 00</li> <li><b>CH 02</b> impulse 02 bonus 00</li> <li><b>CH 03</b> impulse 05 bonus 01</li> <li>• factory settings for EUR</li> <li><b>CH 04</b> impulse 01 bonus 00</li> <li><b>CH 05</b> impulse 02 bonus 00</li> <li><b>CH 06</b> impulse 04 bonus 00</li> </ul>
<b>OP 07</b>	<b>COIN SELECTOR TEST</b>	<ul style="list-style-type: none"> <li>• Value of coin according to settings in OP 06</li> <li>• to perform the test insert a coin to the coin acceptor and watch the display</li> </ul>
<b>OP 08</b>	<b>TICKETS_RANGES_1</b>	<ul style="list-style-type: none"> <li>• Allows to set amount of tickets earn for passing certain points treshold.</li> <li>• For example when you earn 30000 points you get T1+T2+T3 tickets</li> <li>• T1 – tickets earned for passing 10000 points</li> <li>• T2 – tickets earned for passing 20000 points</li> <li>• T3 – tickets earned for passing 30000 points</li> <li>• T4 – tickets earned for passing 40000 points</li> </ul>

<b>OP 09</b>	<b>TICKETS_RANGES_2</b>	<ul style="list-style-type: none"> <li>• T5 – tickets earned for passing 50000 points</li> <li>• T6 – tickets earned for passing 60000 points</li> <li>• T7 – tickets earned for passing 70000 points</li> <li>• T8 – tickets earned for passing 80000 points</li> </ul>
<b>OP 10</b>	<b>TICKETS-MODE</b>	<ul style="list-style-type: none"> <li>• Allows to change how the tickets per points are calculated</li> <li>• Mode: 0 – Tickets are calculated per OP13; x tickets for each y points – linearly</li> <li>• Mode: 1 – Tickets are calculated per OP08,OP09; x tickets for passing 1000/2000/etc points – exponential</li> <li>• M – tickets multiplier – allows to multiply tickets earned</li> <li>• Default – Mode:1, M:1</li> </ul>
<b>OP 11</b>	<b>TICKETS AMOUNT</b>	<ul style="list-style-type: none"> <li>• amount of tickets in ticket dispensers, for manual tracking</li> <li>• default- TK: 3000</li> </ul>
<b>OP 12</b>	<b>TICKET FOR START</b>	<ul style="list-style-type: none"> <li>• Crt – additional tickets paid out for playing</li> <li>• If set to 0 no tickets will be paid out at the start of the game</li> <li>• DISPLAY/HIDE – Inform player if machine is out of tickets (LEGACY)</li> </ul>
<b>OP 13</b>	<b>TICKETS</b>	<ul style="list-style-type: none"> <li>• allows to set number of points needed to earn 1 ticket</li> <li>• disabled if OP10 Mode set to 1</li> </ul>
<b>OP 14</b>	<b>TICKETER SETUP</b>	<ul style="list-style-type: none"> <li>• TK1- ticket dispenser mode</li> <li>0 - ticket dispenser OFF – disables all tickets</li> <li>1 – Entropy Pulse</li> <li>2 – Entropy Continuous</li> <li>3 – Thermal Printer (LEGACY)</li> <li>4-50 – Length of single ticket dispense time [ms] (50 is the recommended value for JENOX and CLE ticket dispensers)</li> <li>• TK2 - LEGACY</li> </ul>
<b>OP 15</b>	<b>NUMBER OF BALLS+PRINT</b>	<ul style="list-style-type: none"> <li>• Ball – amounts of ball throws during one game. After this many throws the game will end.</li> </ul>
<b>OP 16</b>	<b>GAME TIME</b>	<ul style="list-style-type: none"> <li>• Duration of game – after this time the game will end even if not enough balls where thrown</li> </ul>
<b>OP 17</b>	<b>AUTOSTART TIME</b>	<ul style="list-style-type: none"> <li>• time after which new game starts automatically (if there's any credits left)</li> </ul>
<b>OP 18</b>	<b>JACKPOT-ON/OFF</b>	<ul style="list-style-type: none"> <li>• JP/=0 – Jackpot ON</li> <li>• JP/=1 – Jackpot OFF</li> </ul>
<b>OP 19</b>	<b>DEMO INTERVAL</b>	<ul style="list-style-type: none"> <li>• time before music starts playing after previous has stopped in demo (when no one is playing)</li> <li>• default- min:0, sec:30</li> </ul>
<b>OP 20</b>	<b>RECORD-SETUP 1</b>	<ul style="list-style-type: none"> <li>• Rec – Current record</li> <li>• Min – Minimum record</li> </ul>
<b>OP 21</b>	<b>POINT LOSS</b>	<ul style="list-style-type: none"> <li>• Points loss when ball is thrown into back holes</li> <li>• Default – P- = 1x1000</li> <li>• We recommend to not change this value as information displayed on the machine will not reflect this change(Point stickers and displays)</li> </ul>
<b>OP 22</b>	<b>RECORD-SETUP 2</b>	<ul style="list-style-type: none"> <li>• M – Time (in hours) after the record will decrease. Machine must be ON for full duration for decrease to occur</li> <li>• P – By how many points record will decrease</li> <li>• G – Free game earned for beating current record</li> <li>• T – Additional tickets won for beating current record</li> </ul>

OP 23	CREDIT+	<ul style="list-style-type: none"> <li>• op on that allows a user to add credits without entering the MENU</li> <li>• <b>MODE:0</b> op on o</li> <li>• <b>MODE:1</b> op on on, to add credits press <b>B</b> in the DEMO mode</li> </ul>
OP 24	LINK - SETUP	<ul style="list-style-type: none"> <li>• link NO- number of linked machine. Each machine needs to have di erent number</li> <li>• Link enable ON/OFF – set to ON when machine is linked to another</li> </ul>
OP 25	RESERVED	
OP 26	OPTIC SENSOR TEST	<ul style="list-style-type: none"> <li>• graphic visual test for op c sensors in goals</li> <li>• place an object in front of the sensor to see if it's working</li> </ul>
OP 27	MOTOR TEST	<ul style="list-style-type: none"> <li>• enter (#) for a motor test</li> </ul>
OP 28	JACKOPT - POINTS	<ul style="list-style-type: none"> <li>• Sets the range JACKPOT</li> <li>• ( p=60, P=90 ) x 1000 (p – minimum value JACKPOT ; P – maximum value JACKPOT)</li> <li>l=6 hour D=1 x1000 (l – time after jackpot will decrease ; D – value of the jackpot decrease after time "l")</li> </ul>
OP 29	JACKPOT - TICKETS	<ul style="list-style-type: none"> <li>• ( t=1, T=20 ) x 1000 (t – minimum amount of jackpot ckets ; T – maximum amount of jackpot ckets)</li> <li>• T+=5 (increase in ckets for JACKPOT a er each game)</li> </ul>
OP 30	DEFAULT SETTINGS	<ul style="list-style-type: none"> <li>• allows a user to restore the machine's default se ngs</li> </ul>
OP 31	SOUND FACTORY	<ul style="list-style-type: none"> <li>• allows a user to restore default sounds volumes</li> </ul>
OP 32	TYPE OF MUSIC	<ul style="list-style-type: none"> <li>• type of music played during the game or demo mode</li> <li>• choose from 10 types of melodies (0-10) in the <u>demo mode</u></li> <li>• choose from 9 types of melodies (0-9) in the <u>game mode</u></li> <li>• set 0 to play melodies randomly</li> </ul>
OP 33	JACKPOT-DATA	<p>Manually set jackpot values</p> <ul style="list-style-type: none"> <li>• P – points required to earn jackpot</li> <li>• T – ckets earned when scoring jackpot</li> </ul>
OP 34	CUSTOMER NUMBER	<p>not ac ve</p> <ul style="list-style-type: none"> <li>• set by the manufacturer</li> </ul>
OP 35	SERIAL NUMBER	<p>not ac ve</p> <ul style="list-style-type: none"> <li>• set by the manufacturer</li> </ul>
OP 36	TIME SETTINGS	<ul style="list-style-type: none"> <li>• allows a user to set the me</li> </ul>
OP 37	DATE SETTINGS	<ul style="list-style-type: none"> <li>• allows a user to set the date</li> </ul>
OP 38	MENU CODE PIN	<ul style="list-style-type: none"> <li>• user can change factory PIN to a personal code</li> <li>• factory PIN is set to 1 1 1 1</li> <li>• <b>WARNING!</b> A er change, restoring to a factory PIN is not possible. In case of losing your personal PIN contact the manufacturer.</li> </ul>

## ADVANCED MENU OPTIONS:

**(to enter advanced menu options add 1 to the PIN code's last digit e.g. 1111+1= 1112)**

<b>OP 39</b>	<b>GATE_SETUP BALL+1</b>	<ul style="list-style-type: none"> <li>• T – motor work time after 20s of inactivity (releasing additional ball)</li> <li>• B – amounts of additional balls released each game</li> </ul>
<b>OP 40</b>	<b>LED BLINK</b>	<ul style="list-style-type: none"> <li>• allows a user to set different combinations and tempo options of LED's blinking</li> <li>• tem – speed at which LEDs are changing color, 1 – fastest, 10 – slowest</li> <li>• com – LED color combinations: 1 – RGB, 2 – RBGCMY, 3 – RGBCMYW, 4 – CMY, 5- BGW, 6 – RGW, 7 – RBW</li> <li>• default- tem:2 com:7</li> </ul>
<b>OP 41</b>	<b>PLAYS_COUNTER</b>	<ul style="list-style-type: none"> <li>• amount of games played</li> <li>resets every startup</li> </ul>
<b>OP 42</b>	<b>IMPULSES_TESTER</b>	<ul style="list-style-type: none"> <li>• Displays duration and gap between impulses that arrive to mainboard</li> </ul>
<b>OP 43</b>	<b>RESERVED</b>	
<b>OP 44</b>	<b>RESERVED</b>	
<b>OP 45</b>	<b>RESERVED</b>	
<b>OP 46</b>	<b>WORK TIME</b>	<ul style="list-style-type: none"> <li>• Amount of time since board start up [10s]</li> <li>• 0 – probably board is not connected</li> </ul>
<b>OP 47</b>	<b>CONNECTION_ERROR</b>	<ul style="list-style-type: none"> <li>• Amount of errors in communication between mainboard and other boards</li> <li>• X – board is not connected</li> </ul>