SPACE HUNT

MAINTENANCE AND OPERATION MANUAL

Table of contents

HEXA
PINBALL

Conditions and safety instructions

HEXA Pinball is not responsible for any damage resulting from failure to follow the instructions in this manual or from modification of the unit.

When installing the pinball machine, the front panel must be secured using the rear latch and the butterfly screw supplied, as described in the installation instructions later in this manual.

Never use the device during a thunderstorm. In this case, immediately disconnect the mains plug from the power supply.

Do not leave pieces of packaging lying around. Keep them out of the reach of children, as they represent a danger to them.

Install the unit on a flat surface.

Do not insert objects into the air vents.

Do not expose the machine to shock or vibration.

Do not switch the device on and off in quick succession, as this may shorten its service life.

Use the machine indoors only, and avoid contact with water or other liquids.

Use the device only if you are familiar with its functions.

Avoid exposure to fire, and do not place the device near flammable fluids or gases.

The front panel and cash desk must remain closed during use.

Never remove warning or information stickers from the device.

If the machine is not to be used, or if it is to be cleaned, you must unplug it from the power supply. Always use the plug to disconnect the power cord.

Never remove the power plug by pulling on the power cord.

Make sure the device is not exposed to extreme heat, moisture or dust.

Make sure that the power cord does not become tangled, and do not use it if damaged.

Do not switch on the pinball machine immediately after it has been exposed to significant temperature fluctuations (e.g. after transport). Condensation can damage the pinball machine. Allow the pinball machine to gradually reach room temperature before switching it on.

For adult use only. Children may only use the appliance under adult supervision. Never leave the unit unattended during operation.

When replacing fuses, use only fuses of the same type and class.

The user is responsible for the correct installation and use of the machine. HEXA Pinball is not responsible for damage resulting from misuse or incorrect installation of the machine.

Do not place objects, food or drinks on the pinball machine.

The pinball machine may only be connected to an earthed power supply and complies with NFC-1510 standard. Any other use may result in short-circuits, burns and electric shocks.

Repairs, maintenance and electrical connections must only be carried out by a qualified technician.

If this machine is used in a manner not described in this manual, the product may be damaged and the warranty will be void.

Disclaimers & warranty conditions

Warnings, compliance and legal notices

This pinball machine designed by Hexa Pinball has been tested and found to comply with CE (Conformité Européenne) standards.
It has been subjected to electrical, mechanical and electromagnetic emission safety standards.
These standards are designed to provide adequate protection against harmful interference when the equipment
is used in a commercial environment. A pinball machine generates, uses and can emit radio-frequency energy. If not installed and
used in accordance with the instructions, it may cause harmful interference to radio communications. Operation of this equipment in
a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own
expense.

Each pinball machine has unique characteristics that make it a one-of-a-kind, French-made product. Each pinball machine presents
variations in appearance due to differences between the wood parts, the printed art and the mechanical assemblies of the machine.
The tray is not perfectly flat and varies according to the season. As the harder steel ball comes into contact with the wood and
coating, play causes dimples to appear. Over time, the multiple dimples fade and become less visible.

Important health warning

PHOTOSENSITIVE EPILEPTIC SEIZURES - A very small percentage of people may experience an epileptic seizure when
exposed to certain visual images, including flashing lights or patterns. Even people without a history of epileptic seizures may
have an undiagnosed condition that can cause "photosensitive epileptic seizures" due to certain visual images, flashing lights
or patterns. Symptoms may include dizziness, impaired vision, blinking or twitching of the eyes or face, twitching or trembling
of the arms or legs, disorientation, confusion, momentary loss of consciousness, and loss of consciousness or convulsions
that may result in injury from falling or striking nearby objects.

STOP ACTIVITY IMMEDIATELY AND CONSULT A PHYSICIAN IF YOU EXPERIENCE ANY OF THESE SYMPTOMS

Warranty conditions

For reasons of safety and reliability, we do not recommend replacing parts or modifying the pinball machine, as this will void all
warranties. The use of parts not authorized by Hexa Pinball or modifications to the wiring may adversely affect the operation
and/or safety of the pinball machine.
Always exercise extreme caution when servicing your pinball machine. Always consult the manual before replacing or servicing
components. Substituting parts or modifying equipment may invalidate certification.

Always disconnect the flipper from the mains before servicing. Some components may remain live even when unplugged.
Use extreme caution when servicing any electrical component.

ATTENTION! IMPORTANT WARRANTY INFORMATION

This pinball machine's electronics, mechanics and software are designed to work with genuine Hexa Pinball
accessories and devices.

Installing unauthorized accessories, LEDs, cables, motors or other devices, or modifying electromechanical
devices may damage the system and void your warranty.

The warranty does not apply to wearing parts, such as rubbers, balls, sleeves, moving parts, stickers and glass.
Hexa Pinball's sole responsibility is the replacement or repair of parts returned within the applicable warranty period.

When returning the pinball machine, please use the original packaging. Shipping costs are the responsibility of the purchaser.
Unless specifically agreed, no other warranty, express or implied, applies to the pinball machine.

Installation and maintenance

Installation instructions

Your brand-new HEXA Pinball machine is carefully packaged for your safety. For your safety, use caution, the right tools and sufficient help when installing your new pinball machine.

Tools required :

- 5/8" or 16 mm socket wrench
- Cutter
- Pliers

CAUTION: AT LEAST TWO (2) PEOPLE ARE REQUIRED TO MOVE AND MANEUVER THE PINBALL MACHINE. USE APPROPRIATE MOVING EQUIPMENT AND EXERCISE EXTREME CAUTION WHEN HANDLING.

1. Locate the side labelled "CARRIAGE ON THIS SIDE ONLY". This shows the underside of the pinball machine.
2. Cut the nylon straps holding the hat.
⚠️ **Hold the bucket firmly to prevent injury.**
3. Lift the hat.
4. With the help of an assistant, remove the body from the carton.
5. Cut the vertical nylon strap, holding the steel buckle firmly to prevent injury.
6. Retrieve the accessory box, positioned on the pediment.
⚠️ **Be careful not to damage the pinball machine.**
7. Open the accessory box and remove the eight (8) screws, four (4) feet and four (4) jacks.
⚠️ **Do not cut the strap holding the pediment !**
8. Prepare the two (2) front feet by screwing the jacks all the way in. Install the feet, then screw them in firmly.
9. With your assistant, carefully place the pinball machine on its front legs. Raise the rear of the box using a stand.
10. Prepare the two (2) rear feet by screwing in the jacks. Install the feet and screw them in firmly.
11. Remove the bracket.
12. Cut the nylon strap holding the steel buckle, and remove the protective corners.
13. Raise the pediment, hold the backglass with your hands and make sure the cables are not pinched.
14. Hang the latch connecting the box and the pediment on the back of the pinball machine.
15. Retrieve the door keys from the ball launcher.
16. Open the door and retrieve the pediment keys located at the back of the door.

17. Using this key, unlock, lift and remove the backglass.
18. Lift the speaker panel and place it gently on the glass.
19. Retrieve the butterfly key from the crate and screw it into the hole provided.
20. Replace the speaker panel and backglass.
21. Once you've opened the door, grab the yellow handle in the top right-hand corner.
22. Move it to the left, then lift the locking bar to access the glass.
23. Gently slide the glass towards you. Set it down safely
⚠️ **Be careful not to damage it.**
24. Behind the door, you'll find a metal box containing the power cable and the pinball balls.
25. Remove the pin on the top of the crate, then take the crate out and open it.
26. The tilt is installed in the box. Set it to the desired height. Raise or lower the plumb bob - the higher it is, the more sensitive it is to tilting. Tighten the screw by hand.
27. Take the four (4) marbles from the metal case and place them carefully on the tray so that they slide into the marble feeder.
28. Reinsert the glass and reposition the locking bar. Lock with the yellow handle and close the door.
⚠️ **If it's not locked properly, you won't be able to close the door.**
29. Plug the pinball machine into the mains and turn it on using the switch under the right-hand case.
30. Packaging components are made from recyclable materials and must therefore be disposed of in containers or garbage cans intended for selective collection.

CAUTION: THE GLASS IS TEMPERED GLASS. IT IS SENSITIVE TO TEMPERATURE CHANGES. STORE AT ROOM TEMPERATURE ON A SMOOTH SURFACE TO AVOID DAMAGE.

HEXA
PINBALL

Optimum use

1.   Choose an indoor location, away from direct sunlight and with air conditioning. Excessive humidity can cause long-term damage to the pinball machine.

2.   Adjust the feet so that they are flat in front and ¾ raised behind. This will set the platter at the recommended angle. Higher platter angles can be achieved by turning the rear jacks to increase difficulty and speed up gameplay.

3.   Connect the pinball machine to the mains and check that it works properly.

4.   Play a game: if necessary, adjust the pinball volume (press the red buttons inside the door).

5.   If necessary, perform diagnostics, adjustments and pricing settings.

How to move it safely

When transporting the pinball machine, either with a hand truck or in the back of a vehicle, the front panel must always be secured to prevent damage to the top of the machine.

> **Tools required :**
>
> • Straps
> • A hand truck

Securing the pediment

1.   Ensure that all balls have been removed from the platter, and secure any moving mechanisms that may be damaged during transport.

2.   Remove the butterfly screw holding the pediment in place, and the hook at the back of the pediment.

3.   Carefully lower the pinball head onto the side rails. Use a piece of cardboard or suitable padding to protect them.

4.   Fasten the pediment securely.

5.   The pinball machine can be transported with its feet. If they need to be removed, follow the steps below.

Remove feet and straighten

1.   Start by removing the rear feet. Use a stand and/or ask an assistant to support the rear of the pinball machine.

2.   Rest the back of the pinball machine on the floor.

3.   Straighten the pinball machine on its back.

4.   Remove the two front feet.

5.   Tie up any loose parts and transport the pinball machine in an upright position using a hand truck.

CAUTION: NEVER TRANSPORT THE PINBALL MACHINE IN A MOVING VEHICLE WITH THE PINBALL HEAD RAISED! TWO PEOPLE ARE NEEDED TO REMOVE THE FEET!

HEXA
PINBALL

Maintenance

Regular maintenance

This maintenance should be carried out every month or 500 parts.

- Remove the glass from the case.
- Clean the pinball tray with a dry cloth,
- Use the buttons on the door to access the diagnostics menu,
- Identify cracked plastics and worn rubbers so that they can be replaced.
- In diagnostics mode, access the switch test (select the "Switches" icon, then "Matrix").
- Use a pinball to activate all the switches and check their operation.
- Lift the tray and inspect all devices for loose parts, cut wires or excessive wear.
- Play a game to make sure all coils are working properly.
- Check the level of the tray and adjust it to the correct inclination.
- Make sure the volume is set correctly.
- Clean both sides of the glass and reinstall it.

CLEAN THE BALLS. REPLACE THEM IF THEY ARE EXCESSIVELY WORN OR MARKED.

DIRTY BALLS ACCELERATE PINBALL WEAR.

Full service

This maintenance should be carried out every 5,000 parts.

- Check that the latest software version is installed.
- Check for excessive wear on the pinball machine or a problem indicating that an overhaul is required.
- Clean the machine (inside and out) and check the condition of the feet.
- Examine the tray and body for loose/broken parts. Repair if necessary.
- Plug in the machine and check its operation via DIAGNOSTICS.
- Replace worn or dirty rubbers.
- Replace the balls.
- Check all the switches on the tray with a ball.
- Check all settings.
- Check the condition of the door.
- Check tilt setting.
- Play a game to make sure it works.

Tools required :

- Imperial screwdriver (1/4", 5/16", ...)
- Phillips screwdriver
- Hexagonal wrench
- Imperial socket ratchet
- Imperial eye wrench
- Bubble level (or pinball)
- Flashlight or headlamp
- Soldering iron and lead-free solder
- Cutting pliers
- Wire stripper
- Long nose pliers

HEXA
PINBALL

Game rules

Play as Spherus, the last free representative of your people, enslaved by the Space Hunters and hunted for hundreds of years.

Just when all seems lost in your fight for Freedom, you receive unexpected help that will change the balance of power.

Battle your enemies and win the war to save your people. Looks like it's time for some action!

Missions

To access the choice of missions, light up the three (3) Stand Targets on the board. The one on the left, the one in the center and the one on the right. Once all three targets are lit, the mission insert flashes, and you must go to the scoop on the left to access the mission selection.

For the first mission, two Stand Targets are already lit, for the second, one Stand Target is already lit. For subsequent missions, touch all three targets to light up the mission.

Some missions are timed. During these, extra time can be added by touching one of the three Stand Targets.

Successful mission shooting is rewarded with bronze, silver and gold badges. The mission insert is lit according to the badges earned. A mission can be restarted as long as the gold badge has not been earned.

The progress of each mission is recorded throughout the game. When you restart a mission, it starts where it left off.

Attaining at least a bronze badge on every mission unlocks the Mission Master reward.

Fight

You'll have to fight a Space Hunter with your bare hands. Calculate your moves carefully to make sure they hit the mark!

The aim is to send the marble into one of the two orbits when it's lit, to deliver a punch to your opponent.

After the third successful orbit shot, the Reverse shot lights up to finish off the opponent and the mission.

Sniper

Several guards are blocking access. To get rid of them, you need to eliminate them with your sniper. Aim correctly!

Each of the three phases of this mission takes place in 3 stages:
1. open the ammunition hatch by knocking down the launch lane drop target
2. loading the weapon and returning the ball to the launch lane
3. shoot at a moving lit target

Spy

The only way to infiltrate a building guarded by a troop of Space Hunters is to sneak up behind each of them. It's up to you to do this undetected.

This mission involves shooting Combos, with difficulty increasing as you progress. Shots are indicated both visually and audibly.

Safe

To ensure your victory, you'll be breaking into a safe containing important information about the Space Hunters' weak points. But what's the code?

In this mission, you have to light the shots to be fired by first making Gravity Loops on the mini tray. Each Gravity Loop lights a shot for a duration that can be modified in the service menu. Several shots can be fired at the same time, and each Gravity Loop on the mini tray resets the countdown.

Wake Up

The only way to win your battle is to pass through a black hole! But how can our hero escape once inside?

This is a multi-phase mission: first, you have to open the black hole by making a certain number of Gravity Loops on the mini tray (see settings in the service menu).

Then you have to get through the black hole by pulling the Tilt on the mini tray.

Knocked out but still alive, our hero must now be awakened. Be inventive!

With our hero awake, a two-ball multiball fires and the next six shots light up for a Jackpot:
- Right-hand drop target
- Left orbit
- Right orbit
- Left entrance to central ramp
- Right-hand entrance to the central ramp
- Reverse

Once all six shots have been fired, the Super Jackpot lights up on the Tilt of the mini tray. When you win the Super Jackpot, the Jackpot shots light up again, and the cycle of this phase begins again.

The phase ends when you have only one marble left and the time limit has been reached.

Hide

One of your infiltrations goes wrong and you're spotted. To escape your enemies, the best solution is to hide. Be careful not to be detected by the light rays.

This mission uses the principle of the game "1, 2, 3 Soleil". You mustn't hit any Switches during the Space Hunters' search phase (Light Beam Sweep), and take the indicated shots when they're not re-keeping.

You'll have 3 hits points in this mission ; hitting a switch during the Space Hunters' search phase or hitting a forbidden shot (lit in red) will cause you to lose one hit point.

Bomb

You discover a bomb clinging to your leg and threatening to explode. The only way to survive is to defuse it. But how?

The mission is to find a three-digit code to defuse the bomb. To do this, you need to light a shot with the Spinner and fire it to see if it's the right number in the combination.

Hunt

To prepare for the battles ahead, you'll train in your HQ using a training machine to improve your shooting. It's up to you.

The first phase of this mission is similar to a "mole tap", where you have to hit as many targets as possible in a limited time.

Each validated shot will ignite an additional shot in the second phase of the mode.

At the end of phase one, if at least one shot is successful, the second phase begins. This is a two-ball multiball. The number of shots fired and the value of the jackpot depend on the results of the first phase.

HEXA
PINBALL

Wizards

Resistance

To access this mini Wizard, you must have obtained a certain number of Bronze badges (see settings in the service menu).

The hero must resist an attack by space hunters. He's in a control room, piloting two laser-equipped turrets. One on the left and one on the right. Each has a life bar of 10 units, which decreases with each ball lost.

To win the Resistance mini wizard, you need to validate the shots lit up on the board, which appear in 3 waves. All the shots in a wave must be validated to move on to the next wave.

Cerberus

To access this mini Wizard, you must have obtained a certain number of Bronze badges (see settings in the service menu).

Our hero is under attack from the Space Hunters' Cerberus. These attacks come closer and closer, and you have to counter them before they hit you, by shooting at the flashing targets.

Mystery

To switch on the mystery, you need to make a certain number of spinner turns (50 by default, adjustable in the service menu).
A counter of spinner turns for the current player is permanently visible on the screen.
The counter is kept throughout the game.
Every 50, but from the moment the mystery is turned on, the counter is blocked until the mystery is collected. It restarts after collection.

The possible gains are :

- Small points
- Medium points
- Big Points
- Reset tilt warnings
- Allume Extra Ball
- Turn on the mission
- Hold bonus
- Spinner
- Add bonus multiplier
- Collect bonus
- Ball save
- Special

Combos

A combo is a live sequence of ramps. Combos are available at any time in the game.

A Combo always begins with either the left entrance to the central ramp, the right entrance to the central ramp, or the Reverse ramp. Combo X inserts then flash on the board to indicate to the player to continue the sequence.

When the player links two different ramps in a row, this activates a global X2 multiplier on the entire board for the next 5 seconds.

Extra ball

The "extra ball" insert can be lit in different ways:
- At the Mystery
- After earning at least one bronze badge in 3 missions
- By earning the gold badge in the Wake up mission
- After completing 30 laps of Gravity Loop on the mini stage
- After 120 Spin via the Spinner
- After winning 5 Challenges
- After making 25 Combo

To collect the extra ball, go to the scoop on the left.
Extra balls are cumulative.

Main multi-ball

To access the main multiball, three balls must be locked in the top lock scoop under the central ramp.

To block a ball, you must shoot the falling Target in front of the player, to the left of the Bumper, then block the ball in the scoop.
The validated ball is then ejected to the right into the Inlane and the falling Target rises again.

Ejecting the third ball starts the multiball.
Multi-ball can be combined with Fight, Sniper, Spy and Safe missions.

Bonus multiplier

To increment the bonus multiplier, you need to light the complete line consisting of the left Slingshot Outlane, the left Slingshot Inlane, the two Inlane above the Bumpers, the right Slingshot Outlane and the right Slingshot Inlane.

These inserts spell out the word HUNTED. The order of ignition is irrelevant.

Pressing the left or right button shifts the illuminated light to the left or right to facilitate line completion.

When the line is completed, the bonus multiplier increases by one point and the line is switched off. If the line is lit again, the bonus multiplier increases by a further point, up to a maximum of 8.

Challenges

Challenges are short mini-missions that are triggered at random.

They are based on the Fight, Sniper, Hunt, Bomb and Spy missions.

HEXA
PINBALL

Pause and Exit menu

To access the pause menu, press the START button for a few seconds. The pause menu will appear. You have two options: quit the game or pause it.
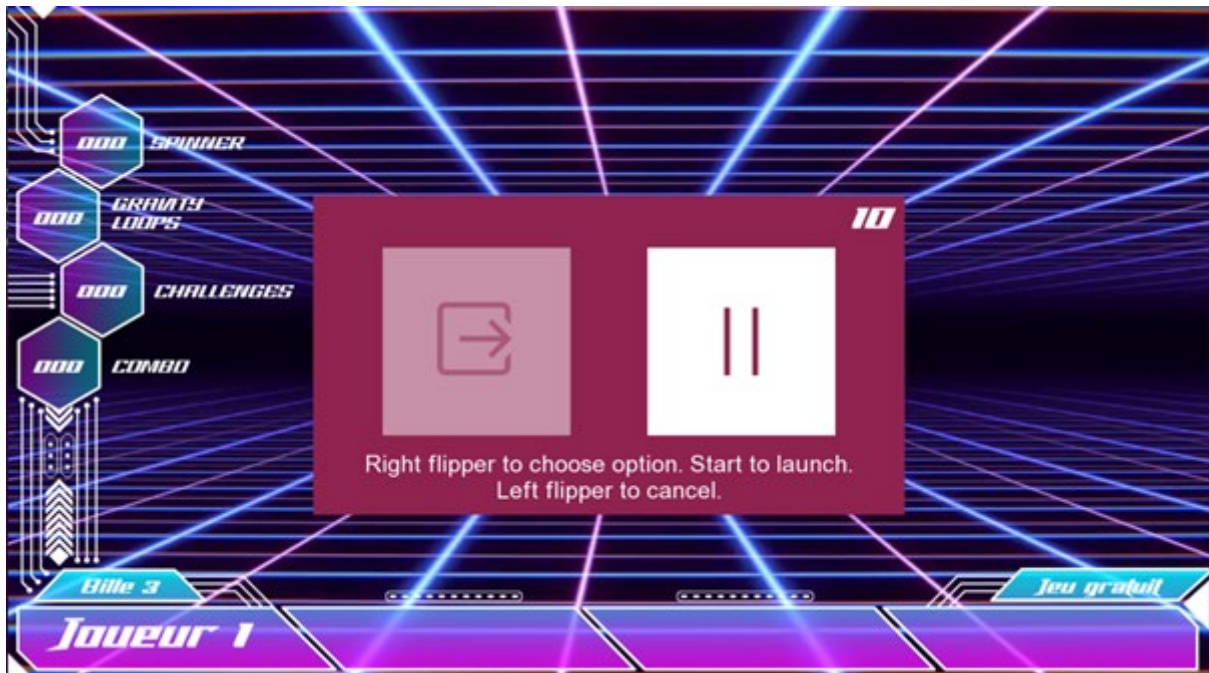
Using the **right-hand** button on the cash register, choose the option you require and confirm with the START button.

Quit the game

Clicking on the 'quit' icon with the START button will return you to attract mode and stop the game in progress.

Pause

Click on the PAUSE icon using the START button, the PLAY icon is displayed and the batsmen are deactivated, the ball will be lost. To restart your game, press the START button, a new ball is loaded into the launcher and automatically sent out. You pick up where you left off.

System menu

The System Menu enables the user or operator to test the performance of its components and mechanisms, customize its rules and track, control or manage his game and/or winnings.

Four buttons are used for navigating the system menu, making settings, entering data, checking components, triggering tests, etc. The buttons are located on the inside of the cabinet, on the door.

Buttons are labeled: black corresponds to Enter, red next to it to Up/+, red next to it to Down/- and green to Back/Escape.

Use Enter to enter a submenu, select a menu item to modify or execute a command. Use Up/+ or Down/- to move through menu choices or to increase/decrease data values for a selected menu item. Use Back/Escape to exit a submenu or selected menu item without saving changes.

To access the menu system at any time, open the door and briefly press Enter. The main menu screen appears instantly. The current date and time are displayed, as well as the software version used by the game.

> Note: when the door is open, the safety switch deactivates the power supply to the tray.
> To activate the mechanisms in one of the diagnostic tests, you must either close the door or pull the safety switch (it will "click" into place).
> When you close the door, the safety switch is pushed back into its normal position (unlocked).

Test menu

The **Test** menu lets you test all the main pinball components and mechanisms to ensure they are working properly.

Switches: tests all matrixed switches. A screen displays the switch matrix showing the status of each switch. When you manually activate a switch, its status is updated on the screen, and you hear an audio response through the display and speakers.

The dedicated switch test, displays the list of dedicated switches per connector, and you can manually activate them. The status is updated on the screen and you hear an audio response.
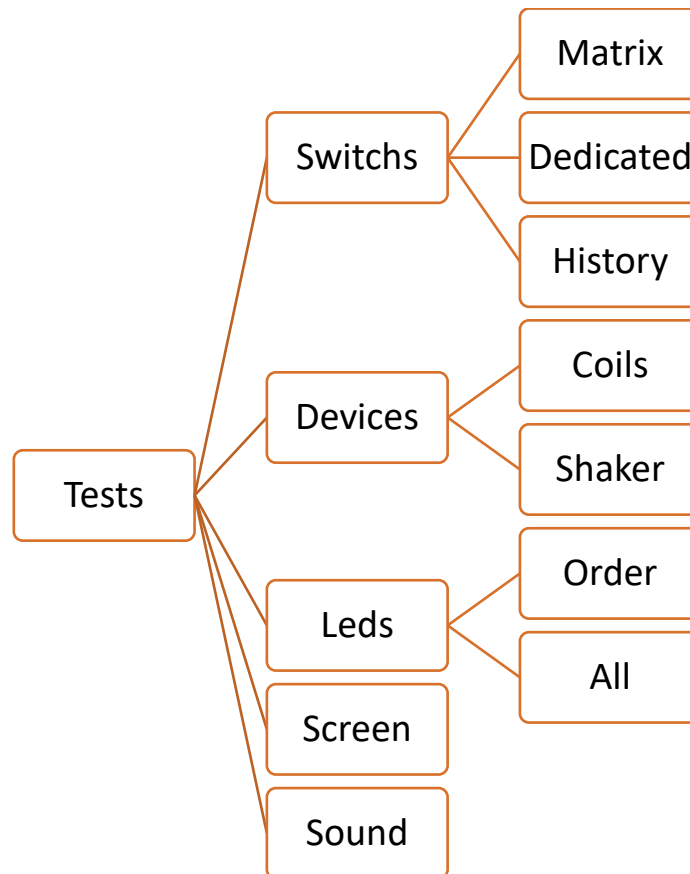
The Switch History screen displays a list of the last switches activated.

Devices: test all the coils on the board, as well as the flashers. You can also test the shaker, if your pinball machine is equipped with one.

LEDS: Test ordered LEDs - you can go through the list of RGB LEDs, one by one, in material order, and test the color of each one. You can also test all LEDs with the same color.

Display: test the basic colors of the LCD screen.

Sound: Test the pinball machine's sound system to make sure it's well balanced and working properly.

```
                                  ┌──────────┐
                                  │  Matrix  │
                                  └──────────┘
                   ┌──────────┐   ┌──────────┐
                   │ Switchs  │───│ Dedicated│
                   └──────────┘   └──────────┘
                                  ┌──────────┐
                                  │ History  │
                                  └──────────┘
                                  ┌──────────┐
                                  │  Coils   │
                   ┌──────────┐   └──────────┘
                   │ Devices  │
                   └──────────┘   ┌──────────┐
   ┌──────────┐                   │  Shaker  │
   │  Tests   │                   └──────────┘
   └──────────┘                   ┌──────────┐
                                  │  Order   │
                   ┌──────────┐   └──────────┘
                   │   Leds   │
                   └──────────┘   ┌──────────┐
                                  │   All    │
                   ┌──────────┐   └──────────┘
                   │  Screen  │
                   └──────────┘
                   ┌──────────┐
                   │  Sound   │
                   └──────────┘
```

Switches

Testing matrix switches

When you enter this test, the screen displays the matrix table.

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Row 1	Left Scoop	Left central ramp	Center Stand target	Left Bumper		Mini playfield Drop target	Spinner left orbit	Left Stand target
Row 2	Place 1	Center central ramp	Right Bumper	Right med orbit		Left outlane	Left return flip	Left Sling shot
Row 3	Trough Jam	Right central ramp		Loop	Mini playfield Loop	Left Inlane	Lock scoop	
Row 4	Right Return flip	Right Sling shot		Right Stand target	Mini playfield entry			
Row 5	Right Outlane		Right Inlane	Shooter Drop target	Mini playfield Tilt			
Row 6	Place 2	Place 4	Lock Drop target	Left Flip EOS				
Row 7	Place 3	Shooter		Right Flip EOS				
Row 8	Left high orbit	Right high orbit	Left med orbit	Upper Flip EOS				

Each square in the matrix table corresponds to a matrix switch. The color of the square represents the current state of this switch:
- Active switches of any type are displayed in squares on a blue background.
- Inactive switches are displayed in squares on a grey background.

The column and row numbers of each switch are displayed at the top and left of the screen respectively.

You can simultaneously test as many switches as you like, or repeatedly test a single switch, observing the results on screen.

Note: When setting a switch, the best way to test it is to roll a ball over, through or into it.

To exit the matrix switch test screen at any time, press the Back/Escape button.

Testing dedicated switches

When you enter this test, the display shows the table of dedicated switches.

Dedicated switches are displayed in columns. Each represents a dedicated connector.

Each box corresponds to a specific switch and its color represents its current status:
- Active switches of any type are displayed in squares on a blue background.
- Inactive switches are displayed in squares on a grey background.

You can simultaneously test as many switches as you like, or repeatedly test a single switch, observing the results on screen.

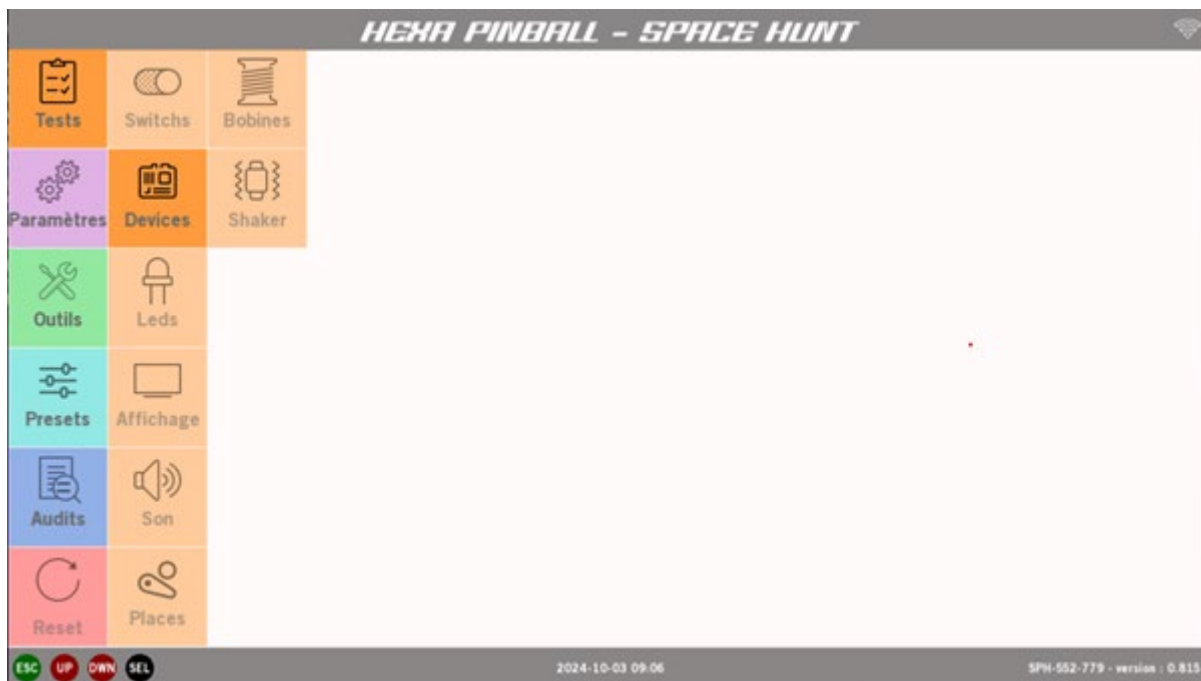To exit, press the Back/Escape button.

Switch history test

When you enter this test, the screen displays the history of switches whose status has recently changed.
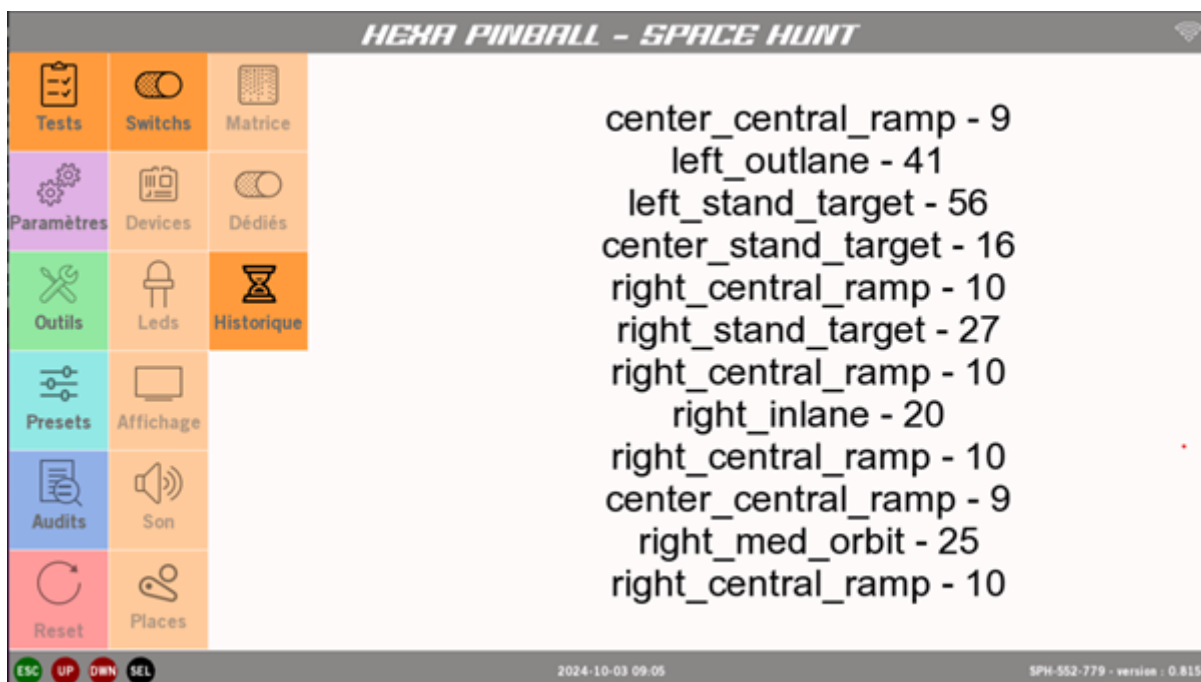
To exit, press the Back/Escape button.

Devices

Coils

You can scroll with the door, Up / + and Down / - buttons and pulse with the Enter button.

Note: when the door is open, the safety switch deactivates the power supply to the tray.
To activate the mechanisms in one of the diagnostic tests, you must either close the door or pull the safety switch (it will "click" into place).
When you close the door, the safety switch is pushed back into its normal position (unlocked).

To exit, press the Back/Escape button

Shaker
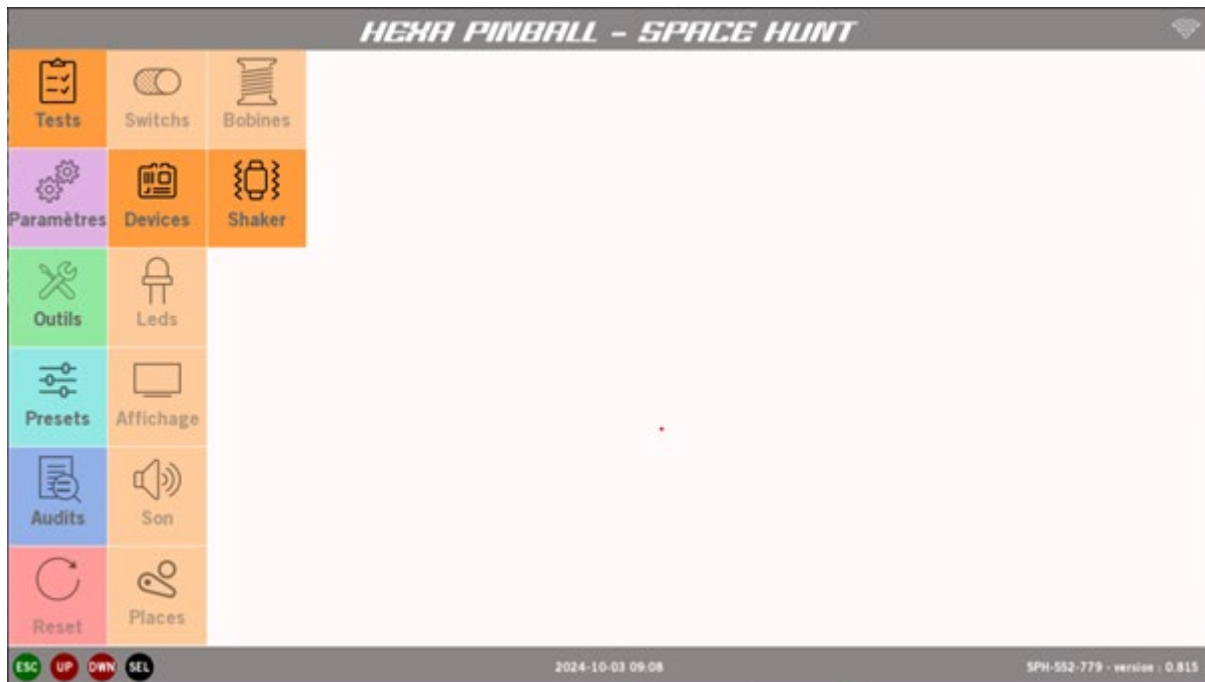
To test the shaker, simply press the Enter button.

To exit, press the Back/Escape button.

Leds

Order
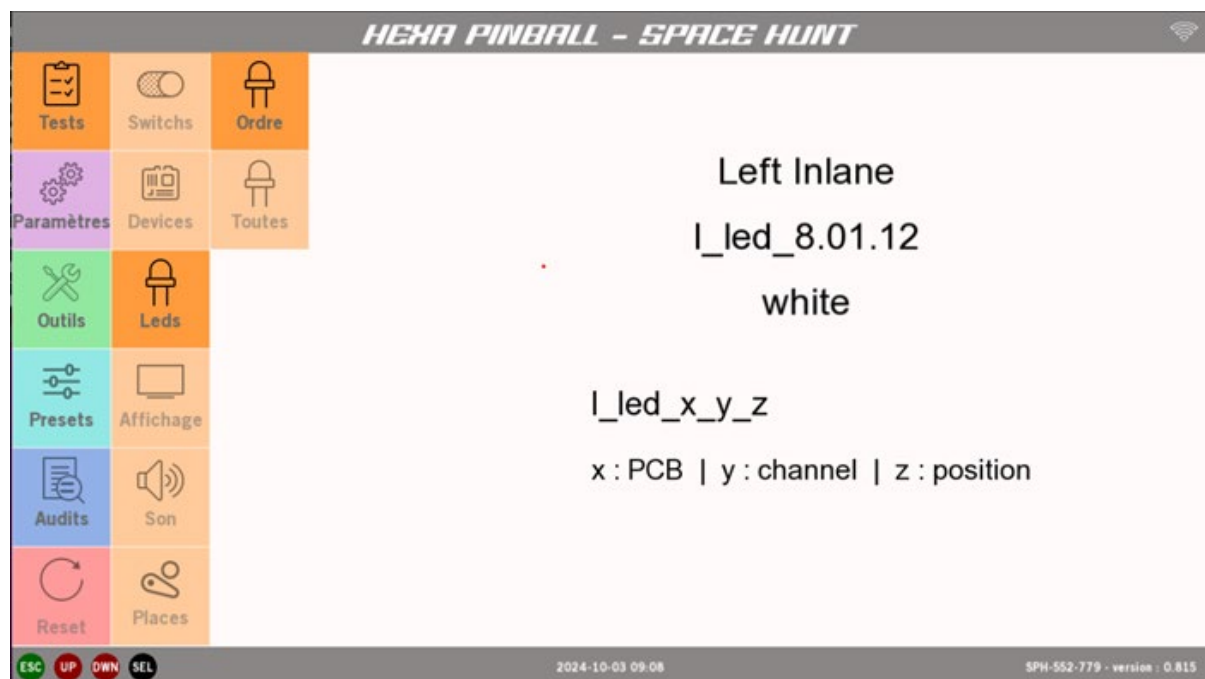
When you enter this screen, the LEDs are displayed in order. Switch from one led to another with the door buttons, Up / + and Down / -. Change color with the Enter button.

The physical location of the led in the chain is displayed on the screen.
To exit, press the Back/Escape button.

All

This screen allows you to test all LEDS at the same time. Change color with the Enter button.
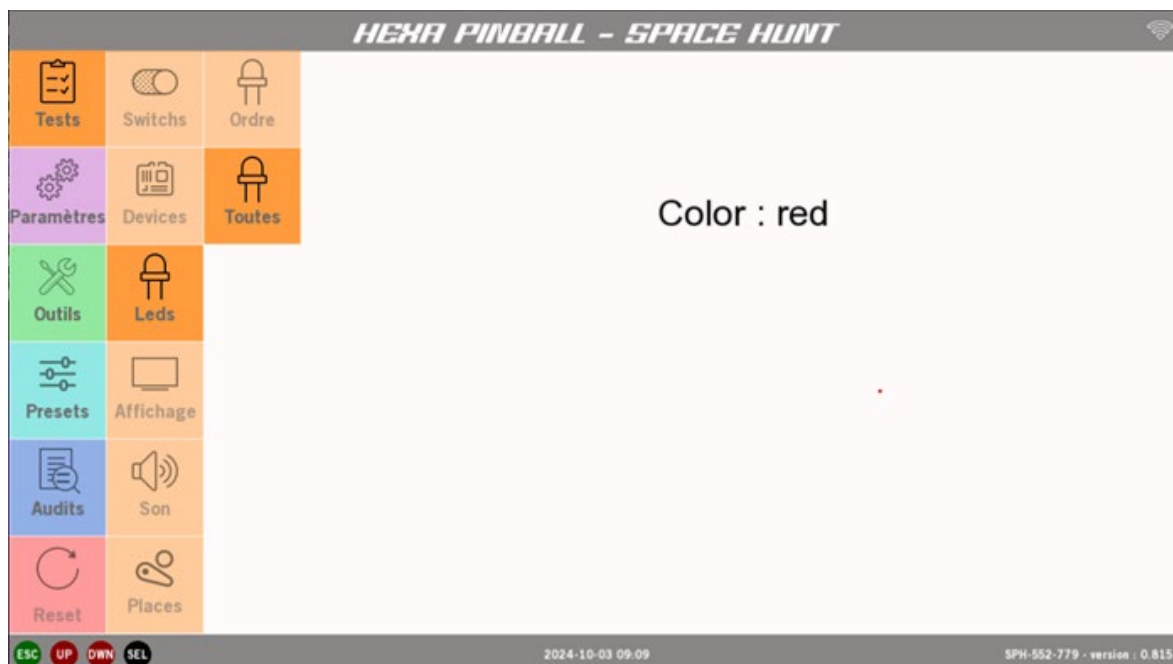
To exit, press the Back/Escape button.

Display

This screen is used to test the display. Change the color displayed with the door buttons, Up / + and Down / -.

To exit, press the Back/Escape button.

Sound

This screen lets you test the sound of your pinball machine. Choose between Music, FX and Voice with the door buttons, Up / + and Down / -. Then select the sound to be played and confirm with the Enter button.

To exit, press the Back/Escape button.

Places

This screen is used to test the bead feeder.
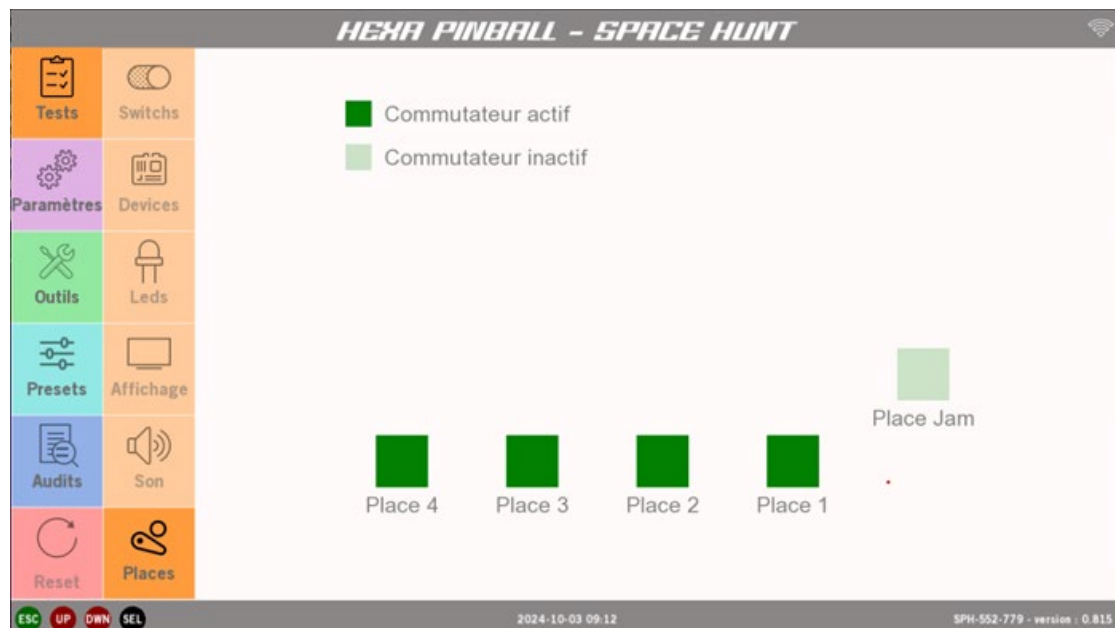
To exit, press the Back/Escape button.

Settings menu

The Settings menu allows the user to adjust system parameters, prices, reel powers, customize the pinball machine or configure it for commercial use.

System: Allows you to set the language, number of balls per game, access to the pause menu, etc.

Pricing: Activate paid credit or free mode.

Timers: Adjust the duration of all timers present in the game.

Game: Adjust all variables present in the game.

Coils: Adjust coil power

Scores :

When you enter a submenu, the screen displays the various options. Parameters that have been modified are marked with an asterisk.

You can scroll through the menu items using the Up / + and Down / - buttons; press Enter to select an item you wish to modify. Use the Up / + and Down / - buttons to change the value, then press Enter to accept the new value, or press Esc to exit without saving changes.

To exit, press the Back/Escape button.

System
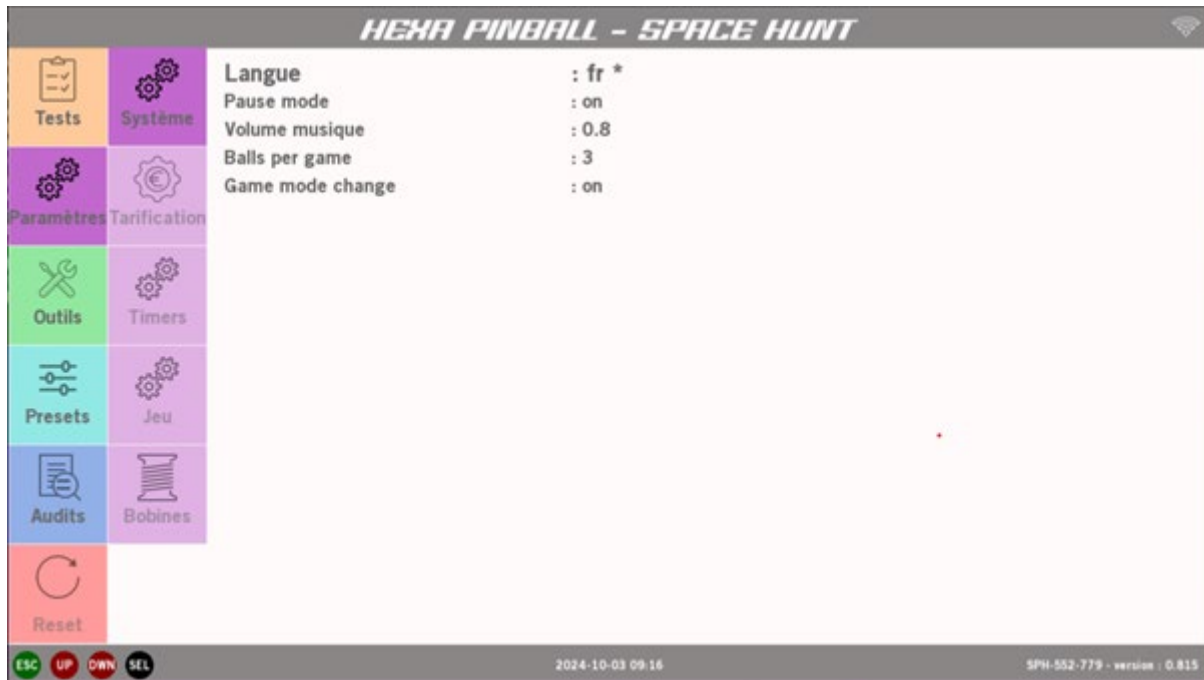
This screen lets you change the language and overall sound volume.

To exit, press the Back/Escape button.

Pricing

To exit, press the Back/Escape button.

Timers

To exit, press the Back/Escape button.

Game

To exit, press the Back/Escape button.

Coils

To exit, press the Back/Escape button.

Tools menu

The Tool menu lets you set the date and time, connect your pinball machine to wifi and update it.

Time: Set time and date

Wifi: Used to configure a wifi connection.

Update : Allows you to update your pinball machine via USB or Wifi.
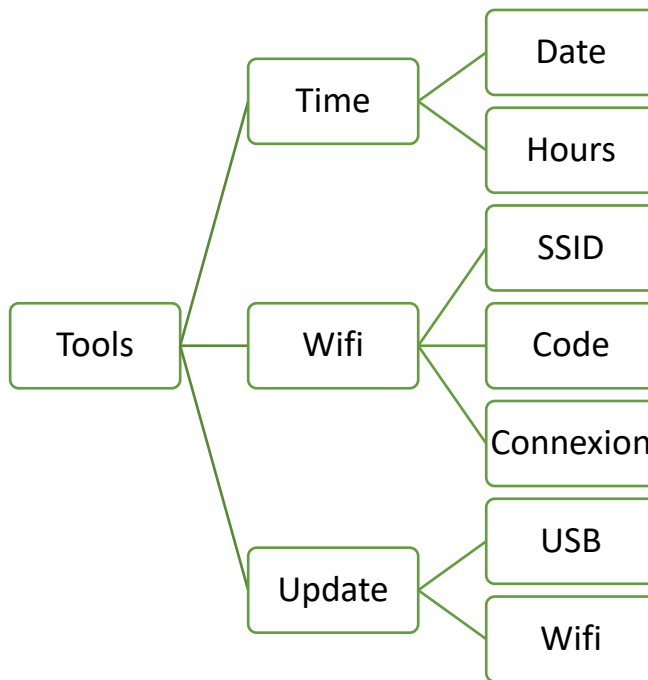
Time

Date
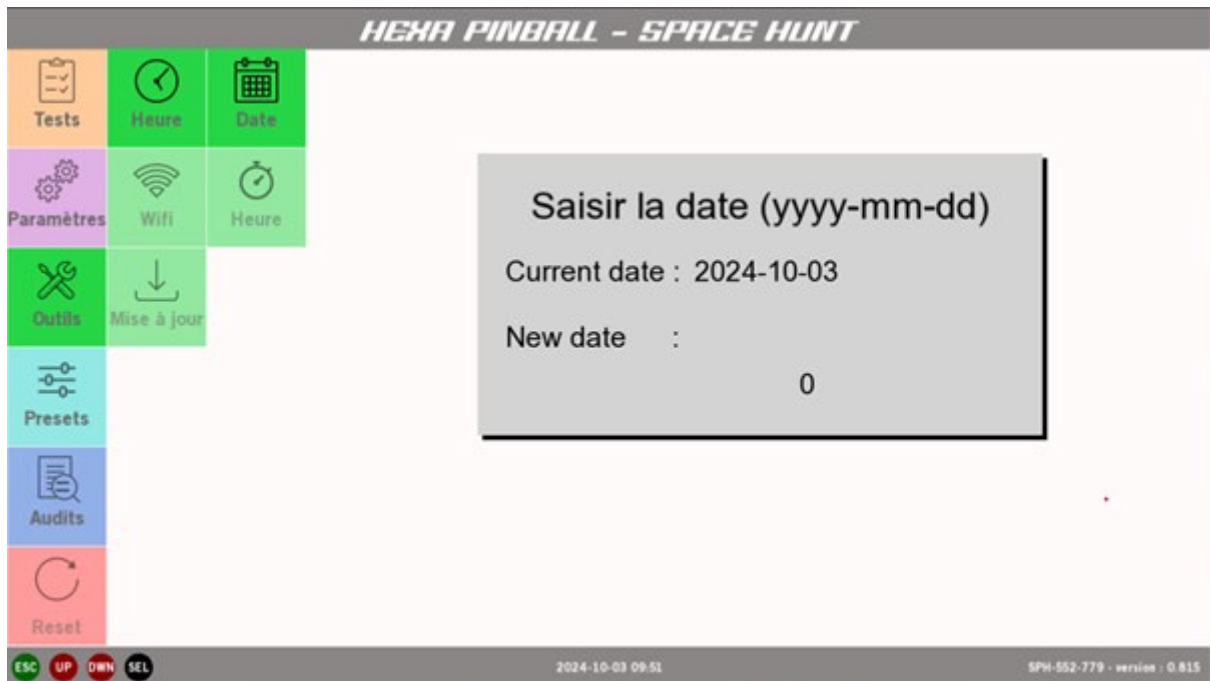
This screen allows you to enter the current date in yyyy-mm-dd format (e.g. 2024-03-05).

The Up / + and Down / - buttons scroll through the digits, and the Enter button selects the chosen digit. Press Enter when "end" is displayed to validate the entry.

 To exit, press the Back/Escape button.
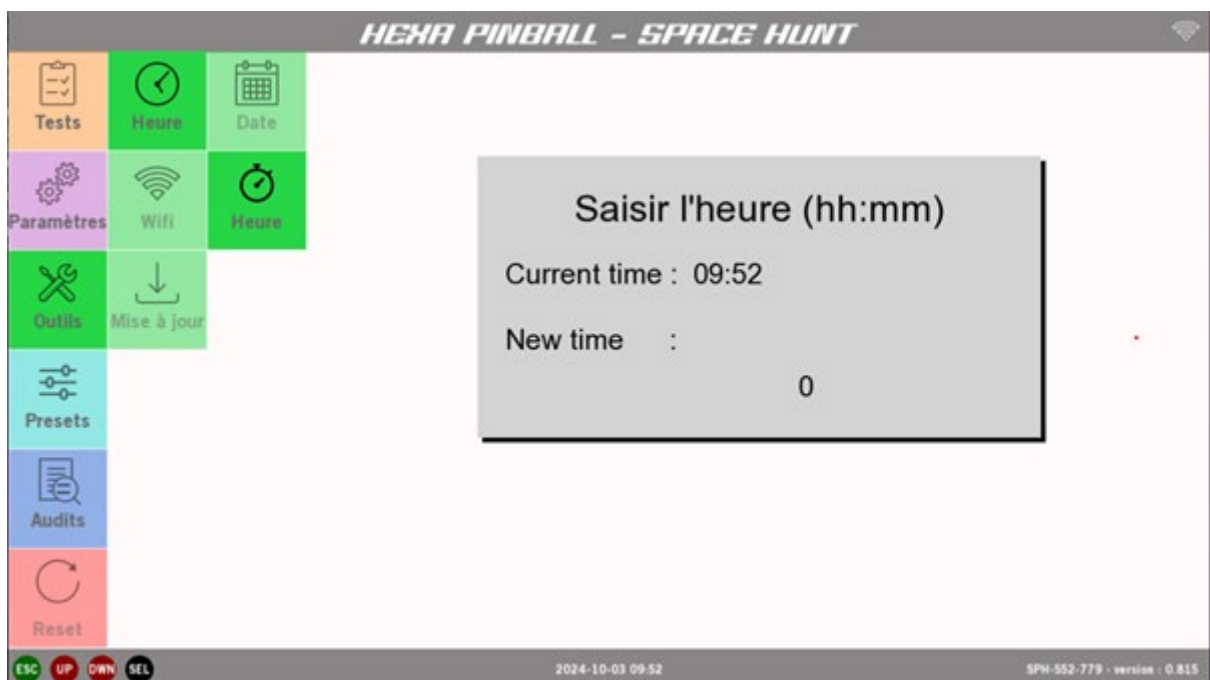
Time

This screen lets you enter the time in hh:mm format (e.g. 18:30).

The Up / + and Down / - buttons scroll through the digits, and the Enter button selects the chosen digit. Press Enter when "end" is displayed to validate the entry.

To exit, press the Back/Escape button.

Wifi

To connect the pinball machine to a Wifi network, select the network, enter the code and launch the connection. Once the connection is established, these settings are memorized and the pinball machine connects automatically each time it is started up.

SSID

This screen lets you select a network from among the detected networks.

The Up / + and Down / - buttons scroll and the Enter button selects your wifi network.
Press Enter to confirm your entry.

To exit, press the Back/Escape button.

Code
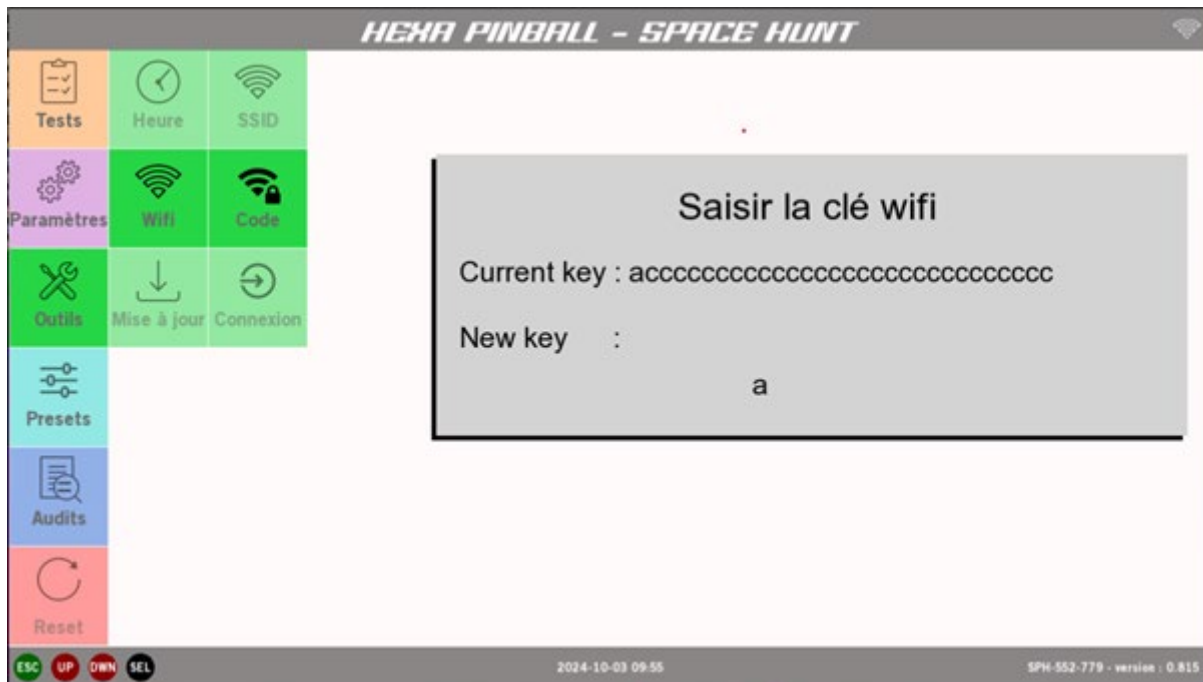
On this screen, enter the Wifi security code.

The Up / + and Down / - buttons scroll through the characters. The Enter button allows you to validate and move on to the next character.
Press Enter when "end" is displayed to validate your entry.

 To exit, press the Back/Escape button.

Connection

This button connects the pinball machine to the configured wifi network.

Update
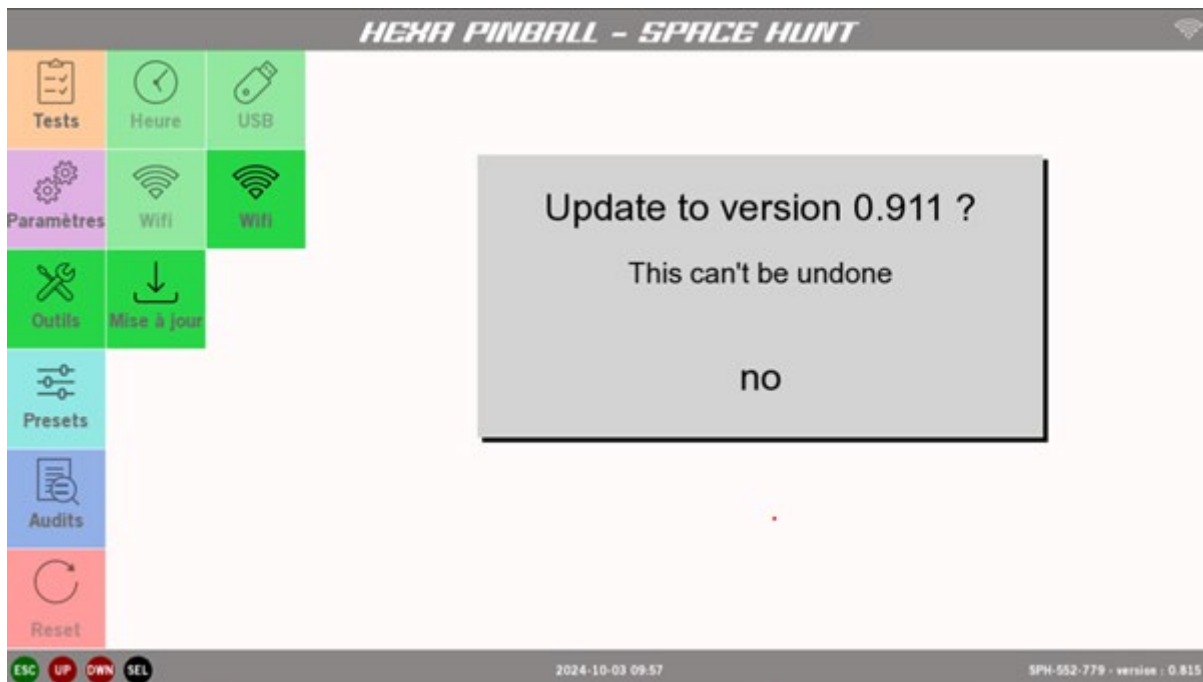
USB

Connect a USB key containing the compressed update file to one of the two USB ports on the left-hand side of the PC.

Enter the USB menu, and the screen will display the current version of the pinball machine and the version on the key. Press the Enter button to start the update. A screen appears telling you that the update is in progress, and that you must wait for the pinball machine to restart.

Wifi

Connect the pinball machine to your WiFi network. Enter the Wifi menu, the screen displays the current version of the pinball machine and the latest version online.

Press the Enter button to start the update. A screen appears telling you that the update is in progress, and that you must wait for the pinball machine to restart.

Warning : do not switch off or restart the pinball machine during the update .

Presets menu

The presets menu allows the user to choose a difficulty level for the game (instead of modifying parameters individually, in other submenus) to quickly make the game easier or more difficult.

Audits menu

This menu provides a wealth of information on pinball machine activity in terms of winnings (if the machine is set to pay), switches, shots and players.

The Up / + and Down / - buttons scroll through the different audits.
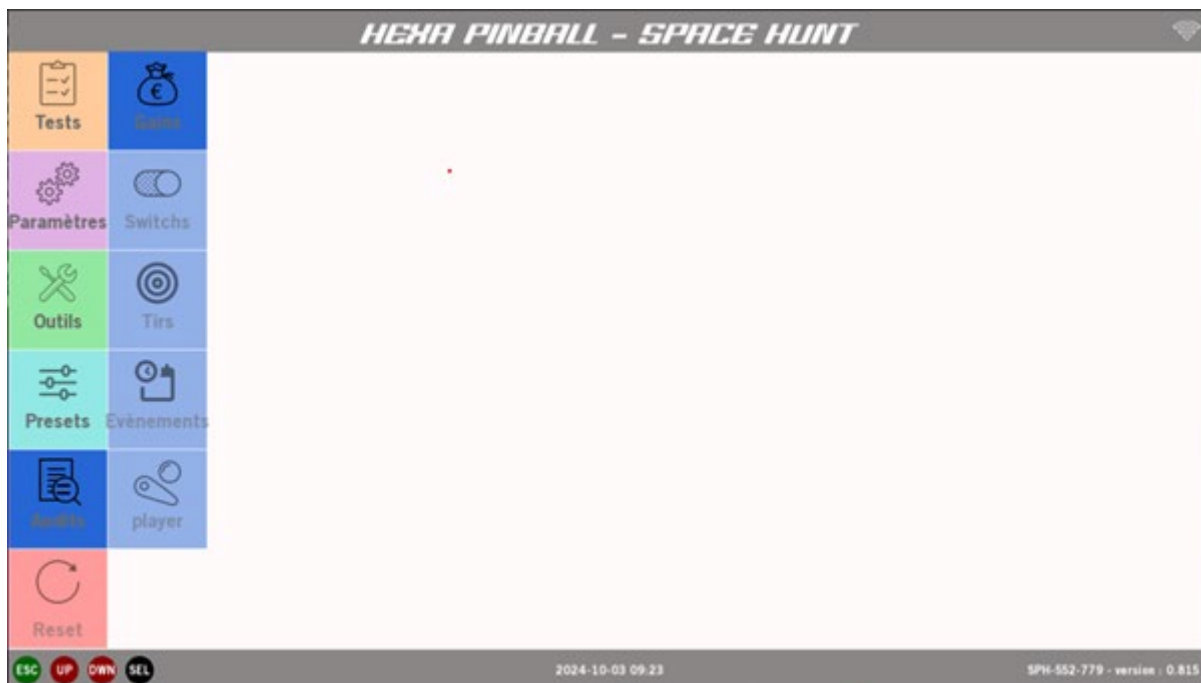
To exit, press the Back/Escape button.

Reset menu

This menu is used to reset pinball information, including credits, scores and audits.

The Up / + and Down / - buttons scroll through the different Resets. Press Enter to validate what you wish to reset. In the window, choose Yes or No with the Up / + and Down / - buttons and validate with Enter.

To exit, press the Back/Escape button.

Components and circuit diagram

Fuse list

Emplacement	Fuse ID	Courant	Voltage	Type
Prise filtre IEC	1	5A	250 V	SB, 5x20mm
Prise filtre IEC	2	5A	250 V	SB, 5x20mm
Rboard	F1	-	-	-
Rboard	F2	5A	250 V	SB, 5x20mm
Rboard	F3	5A	250 V	SB, 5x20mm
Carte filtre	F1	5A	250 V	SB, 5x20mm
Carte filtre	F2	5A	250 V	SB, 5x20mm
Carte filtre	F3	5A	250 V	SB, 5x20mm
Carte filtre	F4	5A	250 V	SB, 5x20mm
Carte filtre	F5	5A	250 V	SB, 5x20mm
Carte filtre	F6	5A	250 V	SB, 5x20mm
Carte filtre	F7	5A	250 V	SB, 5x20mm
Carte filtre	F8	5A	250 V	SB, 5x20mm

Wiring diagram
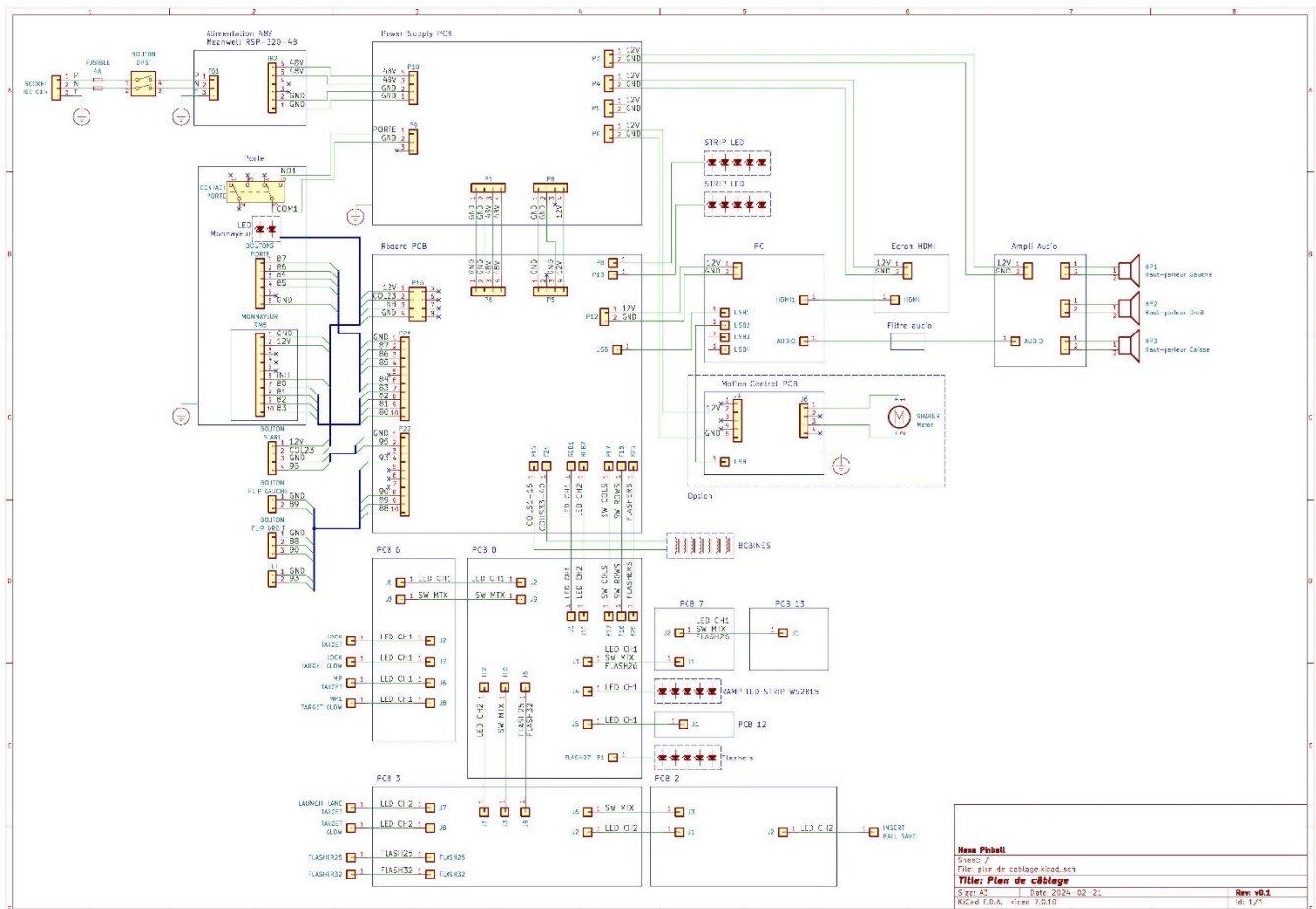
Wiring

Switch matrix

ID	P17 Col.	P18 Lig.	Nom	PCB	Connecteur ID	Type
0	1	1	s_left_scoop	3	SW11	Opto
1	1	2	s_trough1	2	SW12-13	Opto
2	1	3	s_trough_jam	2	SW12-13	Opto
3	1	4	s_right_return_flip	2	SW14	Rollover
4	1	5	s_right_outlane	2	SW15	Rollover
5	1	6	s_trough2	2	SW16	Rollover
6	1	7	s_trough3	2	SW17	Rollover
7	1	8	s_left_high_orbit	6	SW18	Opto
8	2	1	s_left_central_ramp	6	SW21	Opto
9	2	2	s_center_central_ramp	8	SW22	Opto
10	2	3	s_right_central_ramp	8	SW23	Opto
11	2	4	s_right_slingshot	2	SW24	Leaf
13	2	6	s_trough4	2	SW26	Rollover
14	2	7	s_shooter	2	SW27	Rollover
15	2	8	s_right_high_orbit	8	SW28	Opto
16	3	1	s_center_stand_target	6	SW31	Leaf
17	3	2	s_right_bumper	8	SW32	Leaf
20	3	5	s_right_inlane	8	SW35	Rollover
21	3	6	s_lock_drop_target	6	SW36	Micro
23	3	8	s_left_med_orbit	6	SW38	Rollover
24	4	1	s_left_bumper	6	SW41	Leaf
25	4	2	s_right_med_orbit	8	SW42	Rollover
26	4	3	s_loop	7	SW43	Switch
27	4	4	s_right_stand_target	3	SW44	Leaf
28	4	5	s_shooter_drop_target	3	SW45	Switch
29	4	6	s_flip_left_eos	2	SW46	Leaf
30	4	7	s_flip_right_eos	2	SW47	Leaf
31	4	8	s_upper_flip_right_eos	3	SW48	Leaf
34	5	3	s_mp_loop	7	SW53-54-55	Rollover
35	5	4	s_mp_entry	7	SW53-54-55	Rollover
36	5	5	s_mp_tilt	7	SW53-54-55	Other
40	6	1	s_mp_drop_target	6	SW61	Switch
41	6	2	s_left_outlane	2	SW62	Rollover
42	6	3	s_left_inlane	8	SW63	Rollover
48	7	1	s_spinner_left_orbit	3	SW71	Switch
49	7	2	s_left_return_flip	2	SW72	Rollover
50	7	3	s_lock_scoop	8	SW73	Switch
56	8	1	s_left_stand_target	3	SW81	Leaf
57	8	2	s_left_slingshot	2	SW82	Leaf
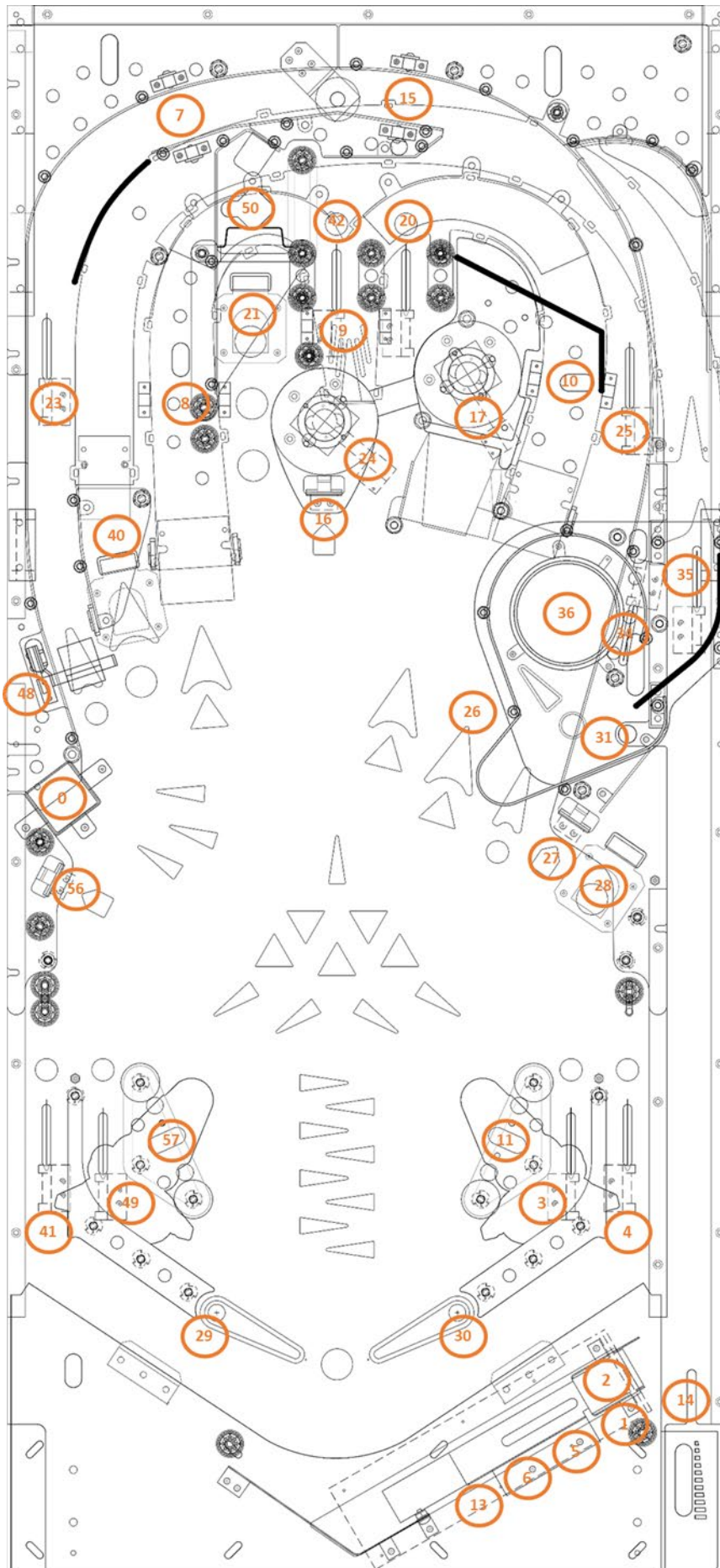
Cash register switch

ID	Connecteur	Nom
80	P21	s_coin1
81	P21	s_coin2
82	P21	s_coin3
83	P21	s_coin4
84	P21	s_service_up
85	P21	s_service_enter
86	P21	s_service_down
87	P21	s_service_esc
88	P22	s_right_flipper
89	P22	s_left_flipper
90	P22	s_upper_right_flipper
93	P22	s_tilt
94	P22	s_shooter_ext
95	P22	s_start

Coils

Num	Connecteur	Nom	Transistor	Type	Tension
1	P 16	c_left_slingshot	Q1	IRL540	48V
2	P 16	c_right_slingshot	Q2	IRL540	48V
3	P 16	c_upper_right_flipper_main	Q3	IRL540	48V
4	P 16	c_flipper_right_main	Q4	IRL540	48V
5	P 16	c_flipper_left_main	Q5	IRL540	48V
6	P 16	c_trough_eject	Q6	IRL540	48V
7	P 16	c_plunger	Q7	IRL540	48V
8	P 16	c_reset_shooter_drop_target	Q8	IRL540	48V
9	P 16	c_reset_lock_drop_target	Q9	IRL540	48V
10	P 16	c_reset_mp_drop_target	Q10	IRL540	48V
11	P 16	c_right_bumper	Q11	IRL540	48V
12	P 16	c_left_bumper	Q12	IRL540	48V
13	P 16	c_lock_scoop	Q13	IRL540	48V
14	P 16	c_hide_post	Q14	IRL540	48V
15	P 16	c_left_scoop	Q15	IRL540	48V
16	P 16	-	Q16	IRL540	48V
33	P 24	c_down_shooter_drop_target	Q 33	IRL540	48V
34	P 24	c_down_lock_drop_target	Q 34	IRL540	48V
35	P 24	c_down_mp_drop_target	Q 35	IRL540	48V
36	P 24	-	Q 36	IRL540	48V
37	P 24	c_upper_right_flipper_hold	Q 37	IRL540	48V
38	P 24	c_flipper_right_hold	Q 38	IRL540	48V
39	P 24	c_flipper_left_hold	Q 39	IRL540	48V
40	P 24	c_knocker (backbox)	Q 40	IRL540	48V

HEXA
PINBALL
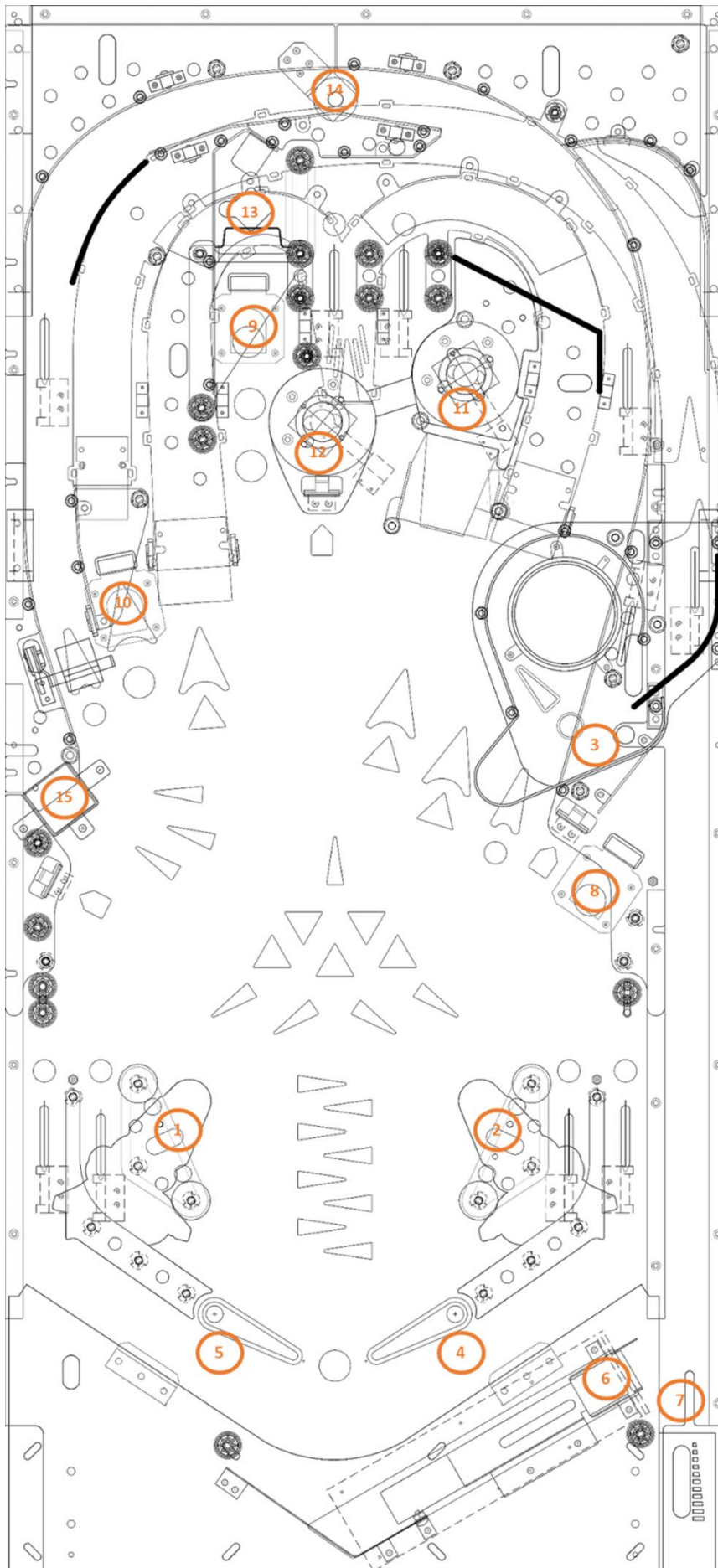
Flashers

Num	Connector	Name	Tension
23	P 15	f_start	12V
25	P 25	f_scoop	12V
26	P 25	f_tilt_mp	12V
27	P 25	f_left_cerberus	12V
28	P 25	f_middle_cerberus	12V
29	P 25	f_right_cerberus	12V
30	P 25	f_bumper_left	12V
31	P 25	f_bumper_right	12V
32	P 25	f_apron	12V
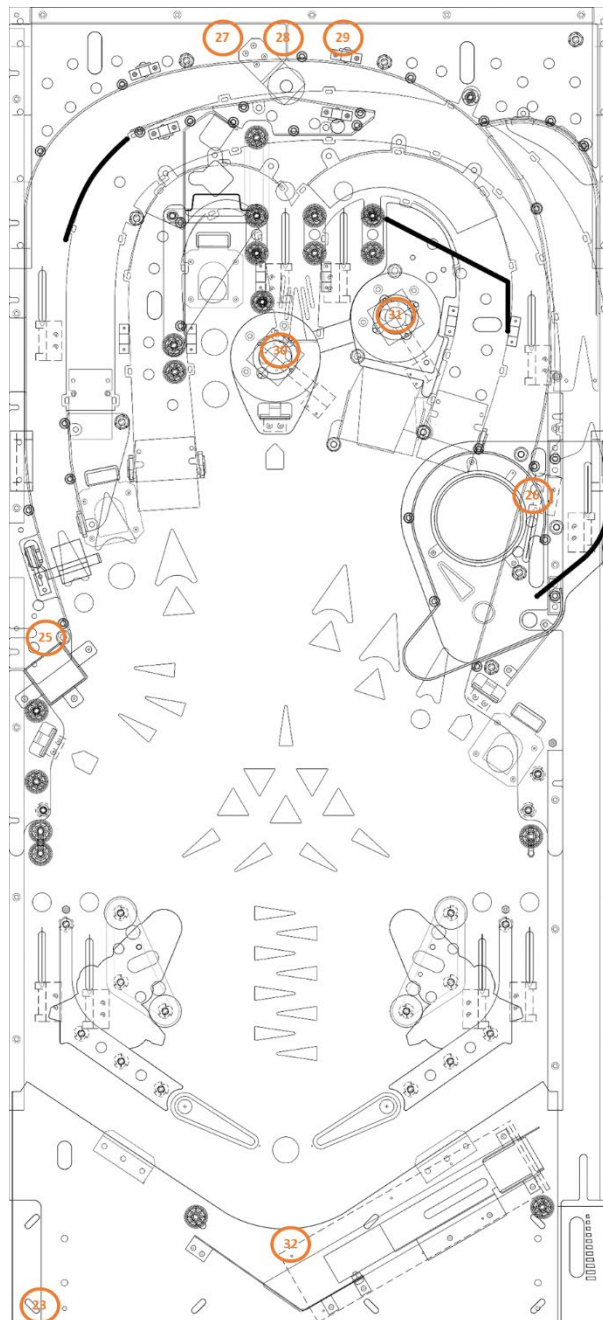
List of RGB LEDs

Two LED "chains" are connected to the Rboard.

If a problem occurs with one LED or connection, the other LEDs in the chain will not work.

So we need to identify the first element in the chain that's not working, and it's probably this one or the one before it that's at fault.

Chaine 1

| #	Nom	EmpInt	#	Nom	EmpInt	#	Nom	EmpInt
1	General illumination	PCB 8	26	General illumination	PCB 8	51	General illumination	PCB 13
2	General illumination	PCB 8	27	General illumination	PCB 6	52	General illumination	PCB 13
3	General illumination	PCB 8	28	General illumination	PCB 6	53	General illumination	PCB 13
4	General illumination	PCB 8	29	General illumination	PCB 6	54	General illumination	PCB 13
5	General illumination	PCB 8	30	General illumination	PCB 6	55	General illumination	PCB 13
6	General illumination	PCB 8	31	General illumination	PCB 6	56	General illumination	PCB 13
7	General illumination	PCB 8	32	General illumination	PCB 6	57	General illumination	PCB 13
8	General illumination	PCB 8	33	General illumination	PCB 6	58	General illumination	Strip
9	General illumination	PCB 8	34	General illumination	PCB 6	59	General illumination	Strip
10	General illumination	PCB 8	35	General illumination	PCB 6	60	General illumination	Strip
11	General illumination	PCB 8	36	General illumination	PCB 6	61	General illumination	Strip
12	Left Inlane	PCB 8	37	General illumination	PCB 6	62	General illumination	Strip
13	General illumination	PCB 8	38	General illumination	PCB 6	63	General illumination	Strip
14	General illumination	PCB 8	39	General illumination	PCB 6	64	General illumination	Strip
15	Right inlane	PCB 8	40	Center stand target	PCB 6	65	General illumination	Strip
16	General illumination	PCB 8	41	Lock 3	PCB 6	66	General illumination	Strip
17	General illumination	PCB 8	42	Lock 2	PCB 6	67	General illumination	Strip
18	General illumination	PCB 8	43	Lock 1	Pixel	68	General illumination	Strip
19	General illumination	PCB 8	44	Lock target glow 1	Strip	69	General illumination	Strip
20	General illumination	PCB 8	45	Lock target glow 2	Strip	70	General illumination	Strip
21	General illumination	PCB 8	46	Arrow mp	Pixel	71	Spherus gun	PCB 12
22	General illumination	PCB 8	47	Mp target glow 1	Strip	72	Spherus arms	PCB 12
23	General illumination	PCB 8	48	Mp target glow 2	Strip	73	Spherus jump	PCB 12
24	General illumination	PCB 8	49	Mp clock	PCB 7	74	Spherus	PCB 12
25	General illumination	PCB 8	50	Mp gravity loop	PCB 7			

Chaine 2

#	Nom	EmpInt	#	Nom	EmpInt	#	Nom	EmpInt
1	Combo left central ramp	PCB 3	19	Fight master right	PCB 3	37	Mission 4	PCB 2
2	Left central ramp	PCB 3	20	Right orbit arrow	PCB 3	38	Mission 5	PCB 2
3	Mp drop target	PCB 3	21	Combo right central ramp	PCB 3	39	Mission 6	PCB 2
4	Left orbit arrow	PCB 3	22	Right central ramp	PCB 3	40	Mission 7	PCB 2
5	Fight master left	PCB 3	23	Combo reverse	PCB 3	41	Mission 8	PCB 2
6	Gi	PCB 3	24	Reverse	PCB 3	42	Spinner master	PCB 2
7	Gi	PCB 3	25	Shooter drop target	Pixel	43	Challenge master	PCB 2
8	Missions	PCB 3	26	Return target glow 1	Strip	44	Combo master	PCB 2
9	Mystery	PCB 3	27	Return target glow 2	Strip	45	Loop master	PCB 2
10	Extra ball	PCB 3	28	H	PCB 2	46	D	PCB 2
11	Left stand target	PCB 3	29	U	PCB 2	47	E	PCB 2
12	Resistance	PCB 3	30	Gi	PCB 2	48	Gi	PCB 2
13	Final left	PCB 3	31	Left sling shot	PCB 2	49	Gi	PCB 2
14	Final center	PCB 3	32	Gi	PCB 2	50	Gi	PCB 2
15	Mission master	PCB 3	33	Gi	PCB 2	51	Gi	PCB 2
16	Final right	PCB 3	34	Mission 1	PCB 2	52	Shoot again	Pixel
17	Cerberus	PCB 3	35	Mission 2	PCB 2			
18	Right stand target	PCB 3	36	Mission 3	PCB 2			

HEXA
PINBALL

Electronic boards

Rboard

ID	TYPE	DESCRIPTION	ID	TYPE	DESCRIPTION
RGB1	KK254 - 2.54mm	RGB1	P15	Mini-Fit Jr 5557	12 V Out Coin door
RGB2	KK254 - 2.54mm	RGB2	P16	Mini-Fit Jr 5557	Alimentation bobines 48 V
P5	Mini-Fit Jr 5557	12 V IN	P17	KK254 - 2.54mm	SWITCH colonnes
P6	Mini-Fit Jr 5557	48 V IN	P18	KK254 - 2.54mm	SWITCH lignes
P8	Mini-Fit Jr 5557	12V Out Led fronton	P19	KK254 - 2.54mm	SWITCH lignes
P9	Mini-Fit Jr 5557	12V Out	P20	KK254 - 2.54mm	SWITCH direct
P10	Mini-Fit Jr 5557	12V Out	P21	KK254 - 2.54mm	SWITCH direct
P11	Mini-Fit Jr 5557	12V Out	P22	KK254 - 2.54mm	SWITCH direct
P12	Mini-Fit Jr 5557	12V Out NUC	P24	Mini-Fit Jr 5557	Alimentation bobines 48 V
P13	Mini-Fit Jr 5557	12V Out Led fronton	P25	KK254 - 2.54mm	Flashers 12 V
P14	Mini-Fit Jr 5557	12 V Out			
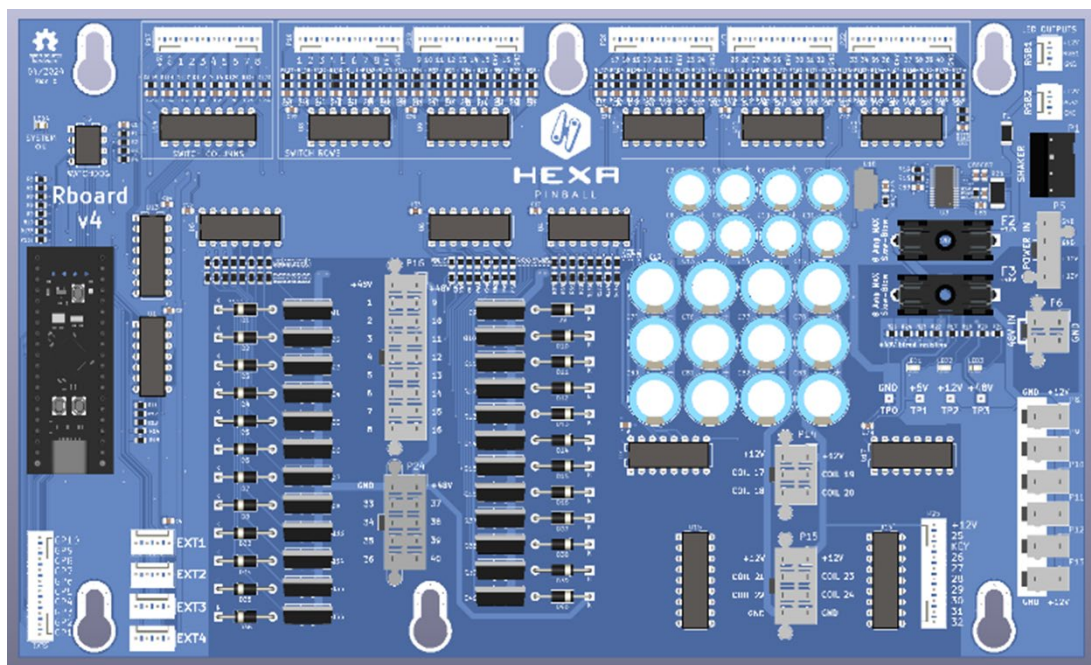
LED bylaws

LED ID	Nom	Couleur	Description
LED 1	System OK	Vert	ON : La carte est fonctionnelle. OFF : La carte rencontre un problème, appeler le support technique
LED 2	+5 V	Vert	ON : L'alimentation est bonne. OFF : L'alimentation est mauvaise, appeler le support technique
LED 3	+12 V	Vert	ON : L'alimentation est bonne. OFF : L'alimentation est mauvaise, appeler le support technique
LED 4	+48 V	Vert	ON : L'alimentation principale du système est connectée. OFF : Le système n'est pas alimenté en 48V. Vérifier l'alimentation électrique, cablages et fusibles.

Filter and power card

ID	TYPE	DESCRIPTION
P1	Mini-Fit Jr 5557	48 V Out to Rboard
P2	Mini-Fit Jr 5557	48 V Out
P3	Mini-Fit Jr 5557	+12V_2 to Ampli
P4	Mini-Fit Jr 5557	+12V_2
P5	Mini-Fit Jr 5557	+12V_2 to Shaker
P6	Mini-Fit Jr 5557	+12V_1
P7	Mini-Fit Jr 5557	+12V_1 to LCD
P8	Mini-Fit Jr 5557	+12V_1 to Rboard
P9	Mini-Fit Jr 5557	Interlock
P10	Mini-Fit Jr 5557	48 V In
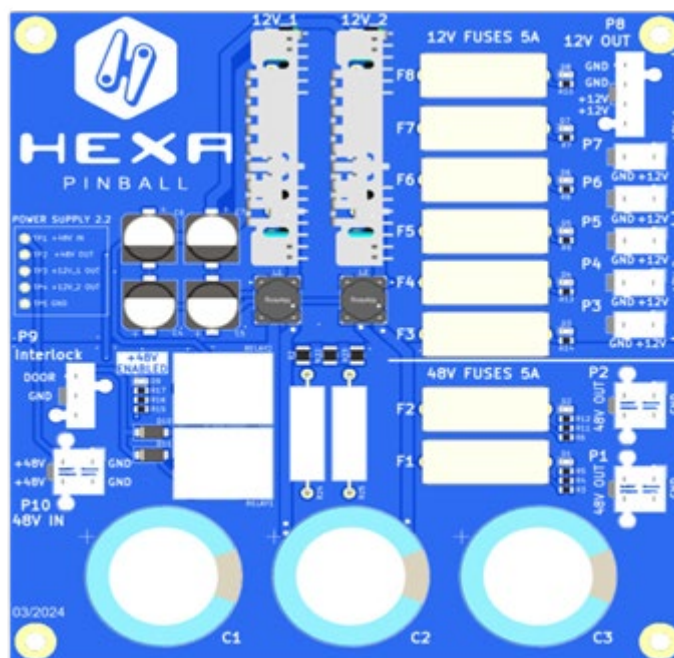
LED bylaws

LED ID	Couleur	Description
D1 / D2	Vert	ON : La tension de sortie 48 V est présente OFF : La tension de sortie est absente
D3 / D4 / D5	Vert	ON : La tension de sortie 12 V est présente OFF : La tension de sortie est absente
D6 / D7 / D8	Vert	ON : La tension de sortie 12 V est présente OFF : La tension de sortie est absente
D9	Vert	LED d'interlock ON : La tension de 48V est présente sur le plateau OFF : La tension de 48 V est absente du plateau

PCB 2
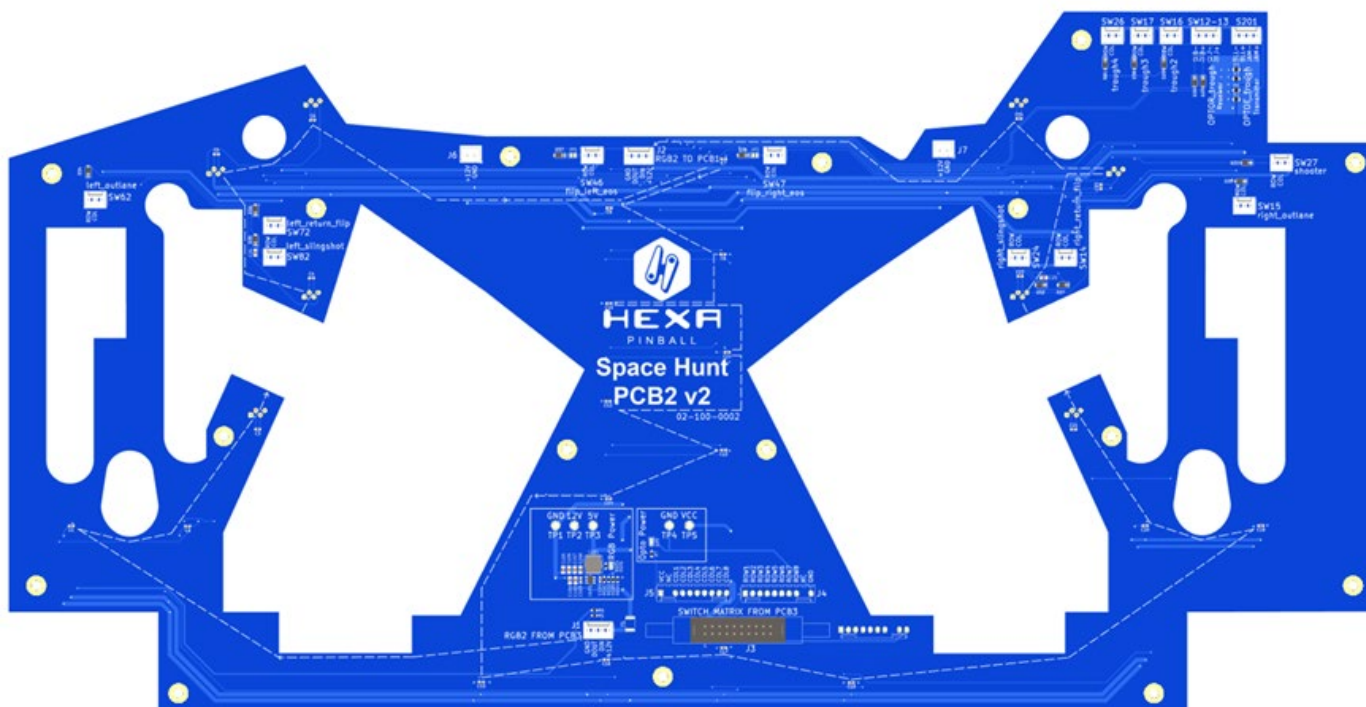
ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR	ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	RGB2 FROM PCB3	KK254	1	+12V	jaune	SW24	right_slingshot	KK254	1	-	-
			2	DIN	blanc				2	COL	noir
			3	DOUT	vert				3	ROW	jaune
			4	GND	noir	SW26	trough4	KK254	1	-	-
J2	RGB2 TO PCB1	KK254	1	+12V	jaune				2	COL	noir
			2	DIN	blanc				3	ROW	jaune
			3	DOUT	vert	SW27	shooter	KK254	1	-	-
			4	GND	noir				2	COL	noir
J3	Switch from PCB3	IDC	20	-	-				3	ROW	jaune
J4	Lignes	-	10	not use	-	SW46	flip_left_eos	KK254	1	-	-
J5	Colonnes	-	10	not use	-				2	COL	noir
J6	Fan left	KK254	1	GND	-				3	ROW	jaune
			2	+12V	-	SW47	flip_right_eos	KK254	1	-	-
J7	Fan right	KK254	1	GND	-				2	COL	noir
			2	+12V	-				3	ROW	jaune
SW12-13	OPTOR_trough Receiver	KK254	1	J+	-	SW62	left_outlane	KK254	1	-	-
			2	J-	-				2	COL	noir
			3	B+	-				3	ROW	jaune
			4	B-	-	SW72	left_return_flip	KK254	1	-	-
SW14	right_return_flip	KK254	1	-	-				2	COL	noir
			2	COL	noir				3	ROW	jaune
			3	ROW	jaune	SW82	left_slingshot	KK254	1	-	-
SW15	right_outlane	KK254	1	-	-				2	COL	noir
			2	COL	noir				3	ROW	jaune
			3	ROW	jaune	S201	OPTOE_trough Transmitter	KK254	1	JAM+	-
SW16	trough2	KK254	1	-	-				2	JAM-	-
			2	COL	noir				3	BLL+	-
			3	ROW	jaune				4	BLL-	-
SW17	trough3	KK254	1	-	-						
			2	COL	noir						
			3	ROW	jaune						

PCB 3

ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR	ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	RGB2 FROM PCB8	KK254	1	+12V	jaune	SW44	right_stand_target	KK254	1	-	-
			2	DIN	blanc				2	COL	noir
			3	DOUT	vert				3	ROW	jaune
			4	GND	noir	SW45	shooter_stand_target	KK254	1	-	-
J2	RGB2 TO PCB2	KK254	1	+12V	jaune				2	COL	noir
			2	DIN	blanc				3	ROW	jaune
			3	DOUT	vert	SW48	upper_flip_right_eos	KK254	1	-	-
			4	GND	noir				2	COL	noir
J3	Switch from PCB8	-	20	-	-				3	ROW	jaune
J4	Lignes	-	10	not use	-	SW71	spinner_left_orbit	KK254	1	-	-
J5	Colonnes	-	10	not use	-				2	COL	noir
J6	Switch to PCB2	-	20	-	-				3	ROW	jaune
J7	RGB2 TO PCB4	KK254	1	+12V	jaune	SW81	left_stand_target	KK254	1	-	-
			2	DIN	blanc				2	COL	noir
			3	DOUT	vert				3	ROW	jaune
			4	GND	noir	S301	OPTOE_left_scoop	KK254	1	K	noir
J8	RGB2 TO TARGET GLOW	KK254	1	+12V	jaune				2	A	jaune
			2	DIN	blanc				3	-	-
			3	DOUT	vert	FLASH25	Flasher Left Scoop	KK254	1	+12V	blanc
			4	GND	noir				2	-	-
J9	FLASH FROM PCB8	KK254	1	+12V	blanc				3	FL32	vert
			2	FL25	vert	FLASH32	Flasher Apron	KK254	1	+12V	blanc
			3	FL32	vert				2	-	-
			4	KEY	-				3	FL32	vert
SW11	OPTOR_left_scoop Receiver	KK254	1	-	-						
			2	E	noir						
			3	C	jaune						
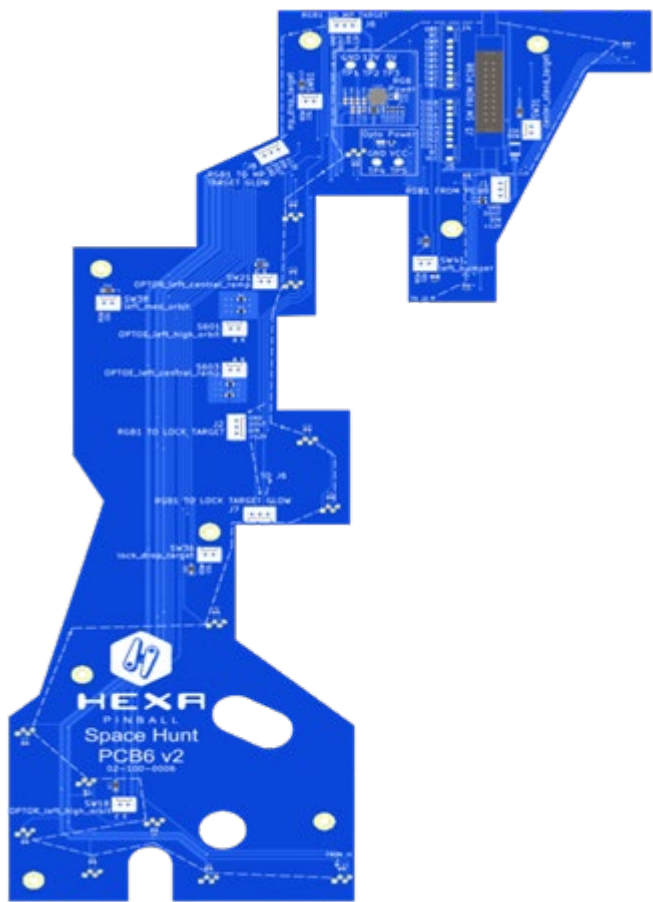
PCB 6

ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR	ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	RGB1 FROM PCB8	KK254	1	+12V	jaune	SW21	OPTOR_left_central_ramp	KK254	1	-	-
			2	DIN	blanc				2	E	noir
			3	DOUT	vert				3	C	Jaune
			4	GND	noir	SW31	center_stand_target	KK254	1	-	-
J2	RBG1 TO LOCK TARGET	KK254	1	+12V	jaune				2	COL	noir
			2	DIN	blanc				3	ROW	jaune
			3	DOUT	vert	SW36	lock_drop_target	KK254	1	-	-
			4	GND	noir				2	COL	noir
J3	SM FROM PCB8	-	20	-	-				3	ROW	jaune
J4	LIGNES	-	10	not use	-	SW38	left_med_orbit	KK254	1	-	-
J5	COLONNES	-	10	not use	-				2	COL	noir
J6	RGB1 TO MP TARGET	KK254	1	+12V	jaune				3	ROW	jaune
			2	DIN	blanc	SW41	left_bumper	KK254	1	-	-
			3	DOUT	vert				2	COL	noir
			4	GND	noir				3	ROW	jaune
J7	RGB1 TO LOCK TARGET GLOW	KK254	1	+12V	jaune	SW61	mp_drop_target	KK254	1	-	-
			2	DIN	blanc				2	COL	noir
			3	DOUT	vert				3	ROW	jaune
			4	GND	noir	S601	OPTOE_left_high_orbit	KK254	1	K	noir
J8	RGB1 TO MP TARGET GLOW	KK254	1	+12V	jaune				2	A	jaune
			2	DIN	blanc				3	-	-
			3	DOUT	vert	S603	OPTOE_left_central_ramp	KK254	1	K	noir
			4	GND	noir				2	A	jaune
SW18	OPTOR_left_high_orbit	KK254	1	-	-				3	-	-
			2	E	noir						
			3	C	Jaune						

PCB 7
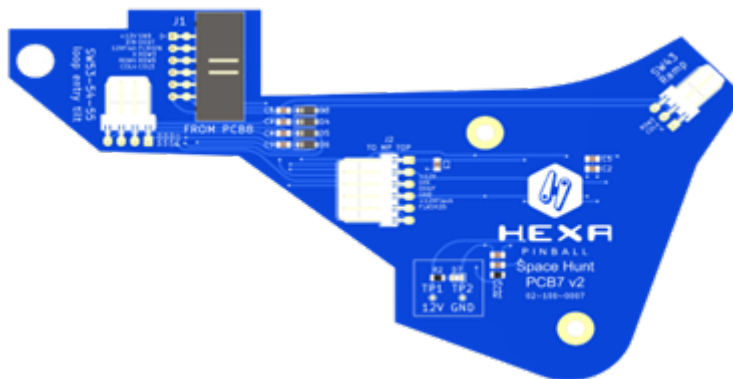
ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	FROM PCB8	IDC	1	+12V	-
			2	DIN	-
			3	12FIsh	-
			4	X	-
			5	ROW4	-
			6	COL4	-
			7	GND	-
			8	DOUT	-
			9	FLSH26	-
			10	ROW3	-
			11	ROW5	-
			12	COL5	-
J2	TO MP TOP	KK254	1	+12V	Jaune
			2	DIN	Blanc
			3	DOUT	Vert
			4	GND	Noir
			5	+12VFlash	Blanc
			6	FLASH26	Vert
SW43	RAMP	KK254	1	X	-
			2	COL	Noir
			3	ROW	Jaune
SW53-54-55	LOOP ENTRY TILT	KK254	1	COL	Noir
	SW 53		2	ROW3	Jaune
	SW 54		3	ROW4	Jaune
	SW 55		4	ROW5	Jaune

PCB 8
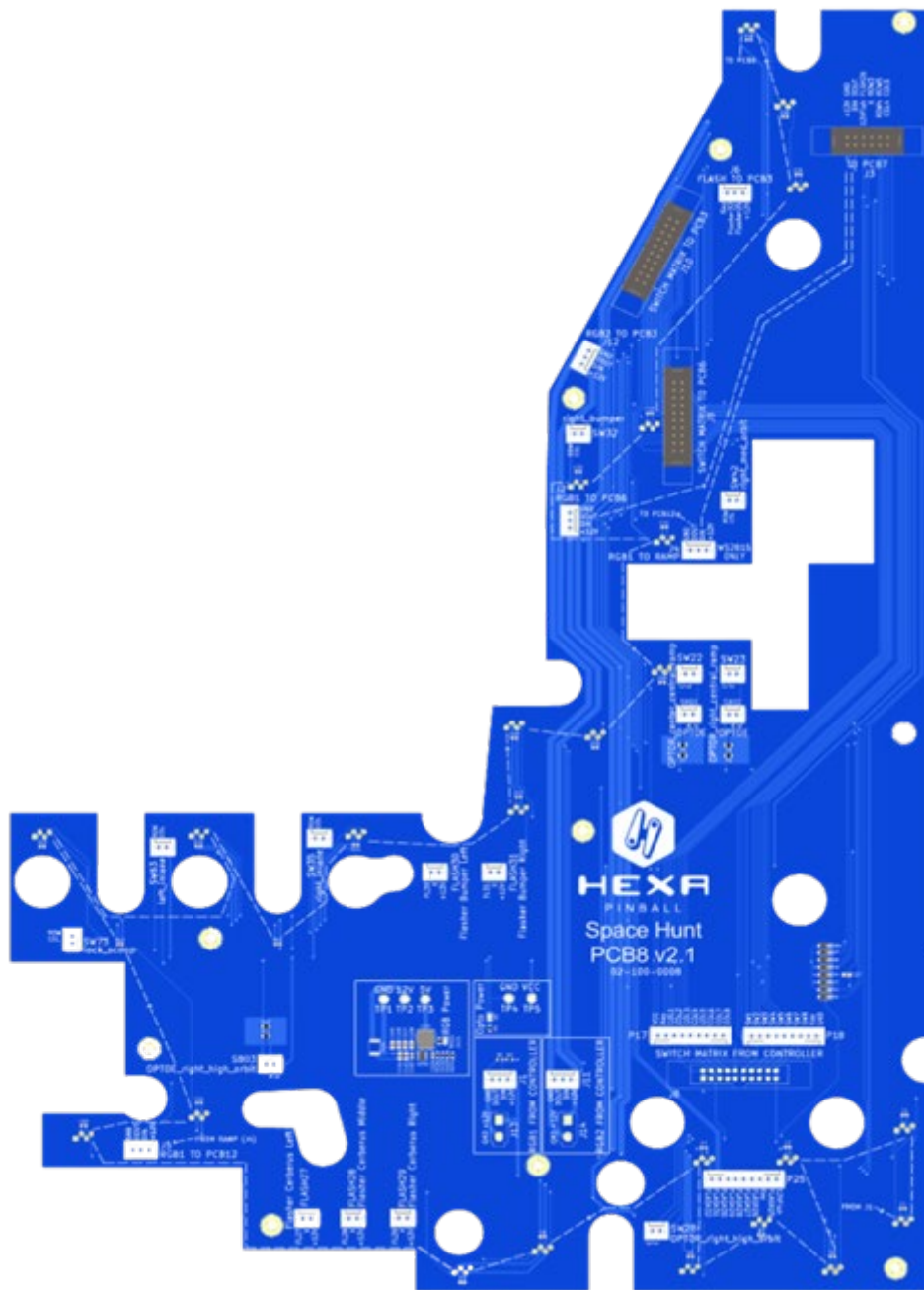
ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	RGB1 FROM CONTROLLER	KK254	1	+12V	blanc
			2	DIN	vert
			3	DOUT	-
			4	GND	noir
J2	RGB1 TO PCB6	KK254	1	+12V	jaune
			2	DIN	blanc
			3	DOUT	vert
			4	GND	noir
J3	TO PCB7	IDC	1	+12V	-
			2	DIN	-
			3	12VFlsh	-
			4	X	-
			5	ROW4	-
			6	COL4	-
			7	GND	-
			8	DOUT	-
			9	FLSH26	-
			10	ROW3	-
			11	ROW5	-
			12	COL5	-
J4	RGB1 TO RAMP	KK254	1	+12V	jaune
			2	DIN	blanc
			3	DOUT	vert
			4	GND	noir
J5	RGB1 TO PCB12	KK254	1	+12V	jaune
			2	DIN	blanc
			3	DOUT	vert
			4	GND	noir
J6	FLASH TO PCB3	KK254	1	+12V	blanc
			2	FL25	vert
			3	FL32	vert
			4	KEY	-
J8	SwMat From	IDC	20	-	-
J9	SwMat From	IDC	20	-	-
J10	SwMat From	IDC	20	-	-
J11	RGB2 FROM CONTROLLER	KK254	1	+12V	blanc
			2	DIN	jaune
			3	DOUT	-
			4	GND	noir
J12	RGB2 TO PCB3	KK254	1	+12V	jaune
			2	DIN	blanc
			3	DOUT	vert
			4	GND	noir
J13	RGB1 FROM CONTROLLER	-	1	+12V	-
			2	GND	-
J14	RGB2 FROM CONTROLLER	-	1	+12V	-
			2	GND	-
SW22	OPTOR_center_central_ramp	KK254	1	-	-
			2	E	noir
			3	C	jaune
SW23	PTOR_right_central_ram	KK254	1	-	-
			2	E	noir
			3	C	jaune
SW28	OPTOR_right_high_orbit	KK254	1	-	-
			2	E	noir
			3	C	jaune
SW32	right_bumper	KK254	1	-	-
			2	COL	noir
			3	ROW	jaune
SW35	right_inlane	KK254	1	-	-
			2	COL	noir
			3	ROW	jaune
SW42	right_med_orbit	KK254	1	-	-
			2	COL	noir
			3	ROW	jaune

ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
SW63	left_inlane	KK254	1	-	-
			2	COL	noir
			3	ROW	jaune
SW73	lock_scoop	KK254	1	-	-
			2	COL	noir
			3	ROW	jaune
FLASH27	Flasher Cerberus Left	KK254	1	+12V	blanc
			2	X	-
			3	FL27	vert
FLASH28	Flasher Cerberus Middle	KK254	1	+12V	blanc
			2	X	-
			3	FL28	vert
FLASH29	Flasher Cerberus Right	KK254	1	+12V	blanc
			2	X	-
			3	FL29	vert
FLASH30	Flasher Bumper Left	KK254	1	+12V	blanc
			2	X	-
			3	FL30	vert
FLASH31	Flasher Bumper Right	KK254	1	+12V	blanc
			2	X	-
			3	FL31	vert
S801	OPTOE_center_central_ramp	KK254	1	K	noir
			2	A	jaune
			3	-	-
S802	OPTOE_right_central_ramp	KK254	1	K	noir
			2	A	jaune
			3	-	-
S803	OPTOE_right_high_orbit	KK254	1	K	noir
			2	A	jaune
			3	-	-
P17	LIGNES	KK254	1	VCC	blanc
			2	KEY	-
			3	COL1	blanc
			4	COL2	blanc
			5	COL3	blanc
			6	COL4	blanc
			7	COL5	blanc
			8	COL6	blanc
			9	COL7	blanc
			10	COL8	blanc
P18	COLONNES	KK254	1	SW1	vert
			2	SW2	vert
			3	SW3	vert
			4	SW4	vert
			5	SW5	vert
			6	SW6	vert
			7	SW7	vert
			8	SW8	vert
			9	KEY	-
			10	GND	vert
P25	Flashs	KK254	1	+12V	blanc
			2	FLASH25	vert
			3	KEY	-
			4	FLASH26	vert
			5	FLASH27	vert
			6	FLASH28	vert
			7	FLASH29	vert
			8	FLASH30	vert
			9	FLASH31	vert
			10	FLASH32	vert

PCB 12

ID	TYPE	PIN	DESCRIPTION	COULEUR
J1	KK254	1	+12V	jaune
		2	DIN	blanc
		3	DOUT	vert
		4	GND	noir

PCB 13

ID	DESCRIPTION	TYPE	PIN	DESCRIPTION	COULEUR
J1	FROM PCB7	KK254	1	+12V LED	jaune
			2	DIN	blanc
			3	DOUT	vert
			4	GND LED	noir
			5	+12V FLASHER	blanc
			6	FLASH26	vert

PIXEL

ID	TYPE	PIN	DESCRIPTION	COULEUR
J1	KK254	1	+12V	jaune
		2	DIN	blanc
		3	DOUT	vert
		4	GND	noir

Flasher Double

ID	TYPE	PIN	DESCRIPTION	COULEUR
+	Souder	+	+12V	Blanc
-		-	GND	Vert

Main power supply

TYPE	PIN	DESCRIPTION	COULEUR
Screw Terminal	1	Phase	Marron
	2	Neutre	Bleu
	3	Terre	Vert / jaune
	4	-	
	5	DC GND	Noir
	6	DC GND	Noir
	7	-	
	8	+48 V	Rouge
	9	+48 V	Rouge

NUC

HEXA
PINBALL
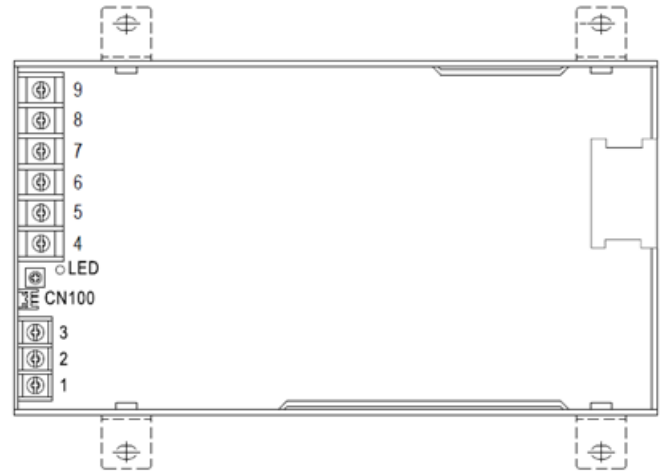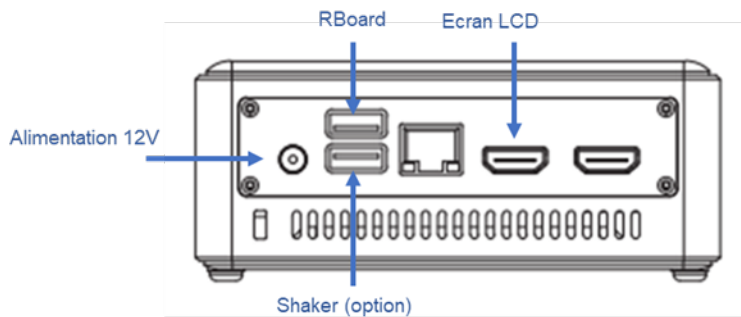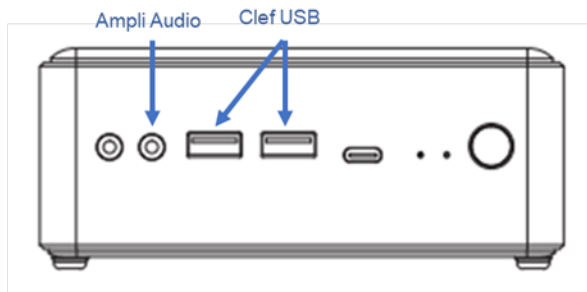
Audio Amplifier
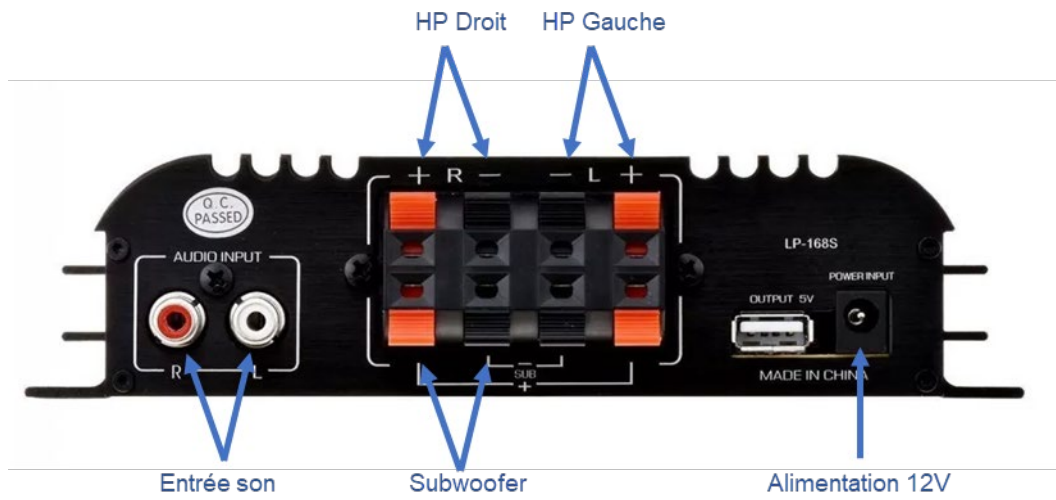
Amplifier factory setting.

Part numbers

Elastics

ID	Qty	Description	Color
1	3	3/8" OD	Black
2	11	5/16"	Black
3	1	1"	Black
4	1	1-1/2"	Black
5	2	2"	Black
6	2	3/4"	Black
7	4	1-1/16"	Green
8	2	Pinball	Black
9	1	Mini Pinball	Black
10	2	1-1/16" Fine	Green
1	3	3/16 ID	Fluo
12	1	3/16 ID	Black
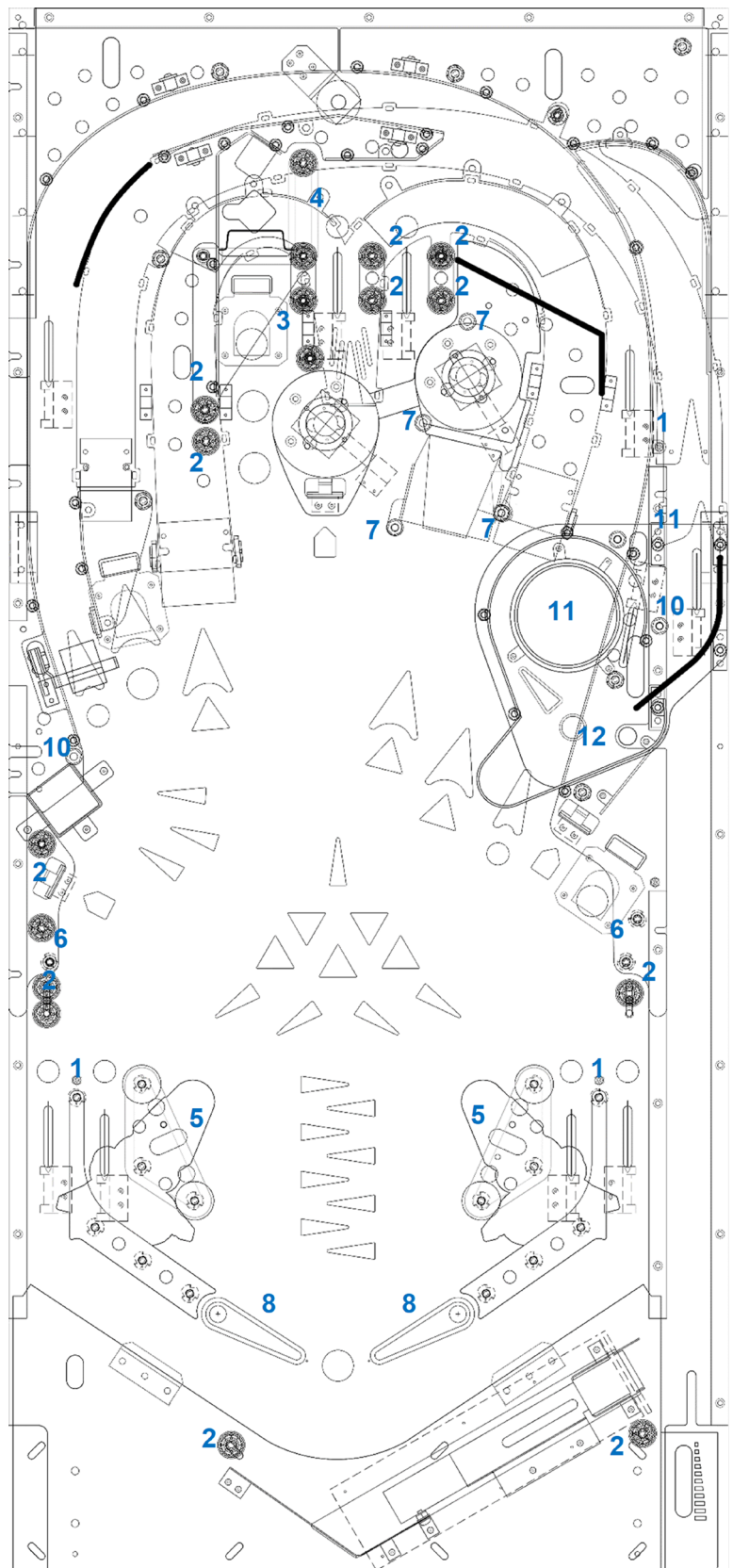
Features

Pinball machine dimensions

Spécification	Impérial	Métrique
Poids	227 lbs	103 kg
Dimensions, vérins en position de jeu (h, l, p)	76 x 27.5 x 51.5 in	193 x 70 x 131 cm
Dimensions minimales dans la pièce par jeu (h, l, p)	80 x 36 x 84 in	203 x 91 cm x 214 cm

(h, l, p) = height, width, depth.

Packaged pinball machine dimensions

| Spécification	Impérial	Métrique
Poids emballé (sans palette)	232 lbs	105 kg
Dimension du carton (h, l, p)	66,9 x 34 x 31 in	170 x 86 x 79 cm

(h, l, p) = height, width, depth.

Electrical Specifications

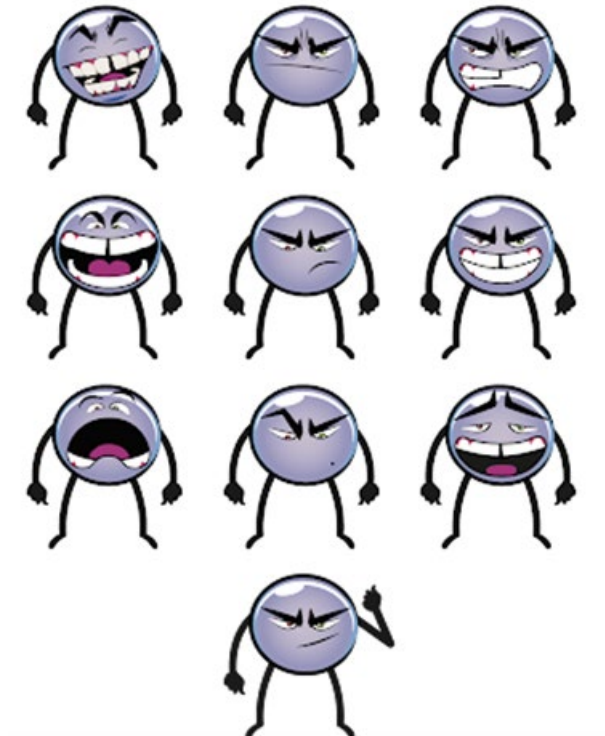| Spécifications	North America - 120VAC	International - 240VAC
Tension secteur, nominale	120 VAC	240 VAC
Plage de tension	90 VAC - 250 VAC	90 VAC - 250 VAC
Fréquence de ligne	60 Hz	50 Hz, 60 Hz
Courtant de ligne - mode attraction	70 W, 0.6 A @ 120 VAC	70 W, 0.3 A @ 240 VAC
Courant de ligne - nominal	360 W, 3 A @ 120 VAC	360 W, 1.5 A @ 240 VAC
Puissance de ligne, courant - crête, <100 ms	540 W, 4.5 A @ 120 VAC	540 W, 2.25 A @ 240 VAC

Environmental Specifications

	Minimum	Maximum
Température d'usage	32 / 0	104 / 40
Température de stockage	32 / 0	104 / 40
Taux d'humidité d'usage	5%	95% sans condensation
Taux d'humidité de stockage	5%	95% sans condensation
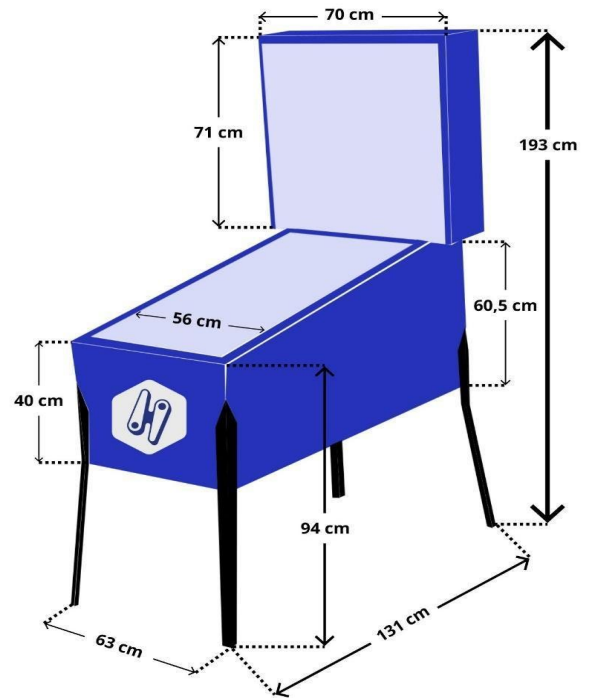
Contact

If you need any help using your pinball machine, please contact your dealer first, who will be able to provide you with all the assistance you need.

You can contact us by e-mail at hello@hexa-pinball.com or fill in the contact form on our website at www.hexa-pinball.com.

.