JACKMANTECH

CA$H BOXER

Setup and usage manual

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Notice

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1. General specifications

Dimensions:
- height: 225cm (89in)
- width: 90cm (36in)
- depth: 135cm (53in)

Weight: 280kg (620lbs)

Power:
200V-240V / 100V-120V AC (switchable on power supplies)
50Hz/60Hz
200W max / 90-120W average

1.1. Included accessories

- mains power cable (regional AC plug to C13 plug)
- capsules for prizes 50pcs.
- top cap with RGB LED strips + M8 wing nuts for installation

1.2. Available options

Available optional accessories

- banknote acceptor
- card payment terminal
- preinstalled JM Operator monitoring device (basic or premium with JM Security)
- vertical RGB LED strips highlighting both sides
- security bar and cover for top and bottom cabinet key locks

Available colors

- yellow
- white
- red
- blue
- violet
- green
- black

1.3. Available variants

Code	Name	Prize type	Scores for prize
CB	Cash Boxer	Capsules (3 separate types)	Prize 1: 200, 300, 400, 500 Prize 2: 600, 700, 800 Prize 3: 900
JB	Just a Boxer	3 free games for every 10 hits	N/A
EB	Extra Games Boxer	Free games Prize 1 = 5 games Prize 2 = 10 games Prize 3 = 20 games	Prize 1: 200, 300, 400, 500 Prize 2: 600, 700, 800 Prize 3: 900
PB	Prize Boxer	Capsules (3 separate types)	Prize 1: 700 Prize 2: 800 Prize 3: 900
GB	Gift Card Boxer	Gift cards (3 separate types)	Prize 1: 700 Prize 2: 800 Prize 3: 900
KB	Kebab Boxer	Capsules or gift cards (1 type)	100, 200, 300, 400, 500, 600, 700, 800, 900
MB	Coin Boxer	Coins (main + backup hopper, configurable coins count for each prize)	Prize 1: 200, 300, 400, 500 Prize 2: 600, 700, 800 Prize 3: 900
TB	Ticket Boxer	Tickets (2 dispensers)	Ticket counts shown on score tower. 100, 200, 300 etc. are big prizes[1]
NB	Ninja Boxer (smaller – for kids)	– (no prizes)	N/A

[1] in prize configuration scores corresponding to each prize are the same as in Cash Boxer and Extra Games Boxer

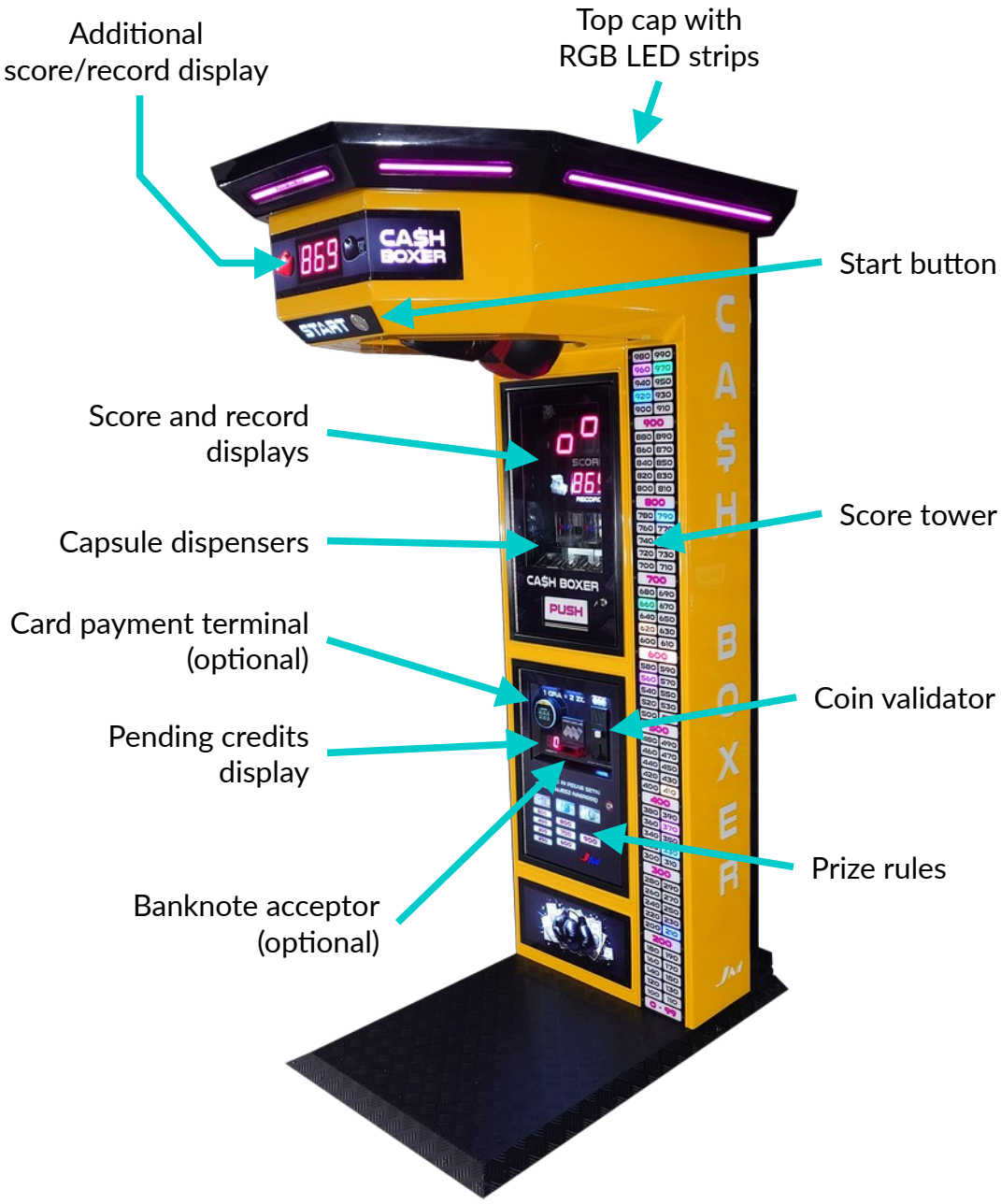
1.4. Serial numbering

CB 0088/93

- **Variant code**[1]
- **Machine number**
- Manufacturer's internal number[2]

[1] refer to section 1.3 Available variants to see each variants' variant code
[2] not present on older units

2. Machine overview



3. Setting up the machine

3.1. General precautions and information

- position the machine on hard and level surface
- power the machine only from electrical installations with proper grounding and safety features
- ensure that used power cable is not faulty
- ensure there's proper clearance and level surface around the machine, especially in the front
- ensure there are no obstacles that players could hit by accident while using the machine
- ensure the machine doesn't wobble, use rubber standoffs at the back of the machine to stabilize it
- machine can be used outdoors
- optionally, one may additionally secure the machine to the ground by installing screws in the screw holes near standoffs in the back

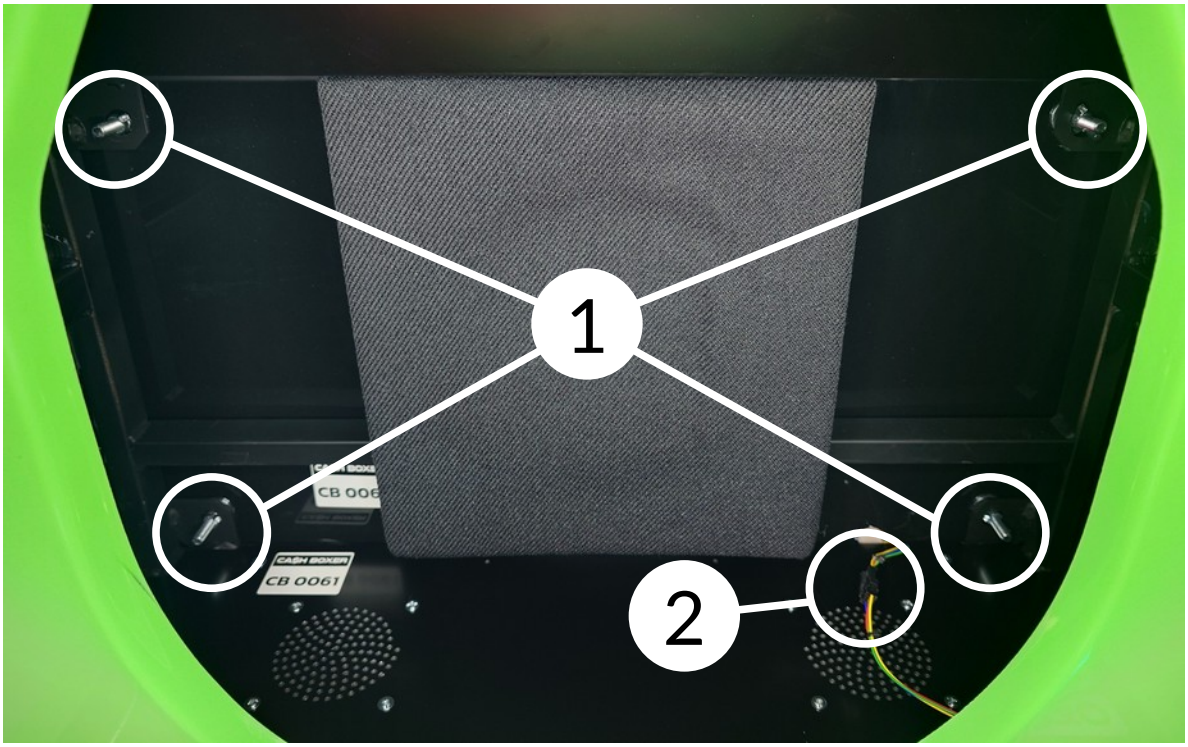
3.2. Installing the top cap

Step 1: Align the cap with 4 screw holes on the top. Make sure the cable is loose and not stuck on the metal frame.

Step 2: Turn on the machine and use Menu → Tests → Rotate release motor option to release the punchbag and make space to access top cap from the bottom.

Step 3: Install 4 wing nuts on cap's threaded pins to secure it. Marked with "1" in the picture below.

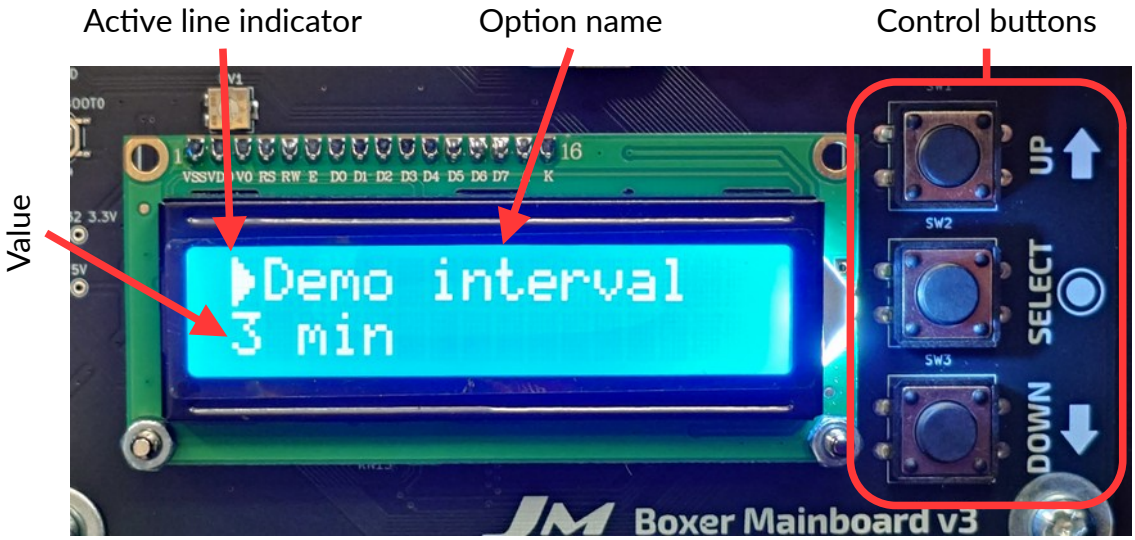
Step 4: Connect cap's RGB LEDs connector with the nearby cable. Marked with "2" in the picture below.



3.3. After the installation

- configure the machine using status & menu display if necessary
- fill capsule dispensers with prizes with accordance to the game rules
- remember to check the machine on a regular basis and refill the prizes

4. Status & menu display



Status & menu display in menu mode

Button	Main screen action	Menu action
UP	Next status message	Previous entry/increase value
SELECT	Enter menu	Select entry/exit test
DOWN	Previous status message	Next entry/decrease value

Status and menu display together with 3 buttons on the right is used to see the status and configure how the machine operates. Said display is located on the mainboard in the bottom cabinet.

By default the display is in the “main screen” mode in which only the credits counter is shown and pending credits count if applicable. If any error occurs or other important information needs to be shown the screen will cycle between counters and each error/information message.

Press the SELECT button to enter the main menu. Horizontal triangle (▶) on the left is used to indicate the active line. Use “Exit” option at the end of the main menu to exit the menu and return to the main screen.

Top line shows the entry name. If active, up/down buttons switch between entries.

Bottom line shows the entry value. If active, up/down buttons change the value.

If bottom line says “<press select>” selected entry is a sub-menu or a test – press select to enter. In sub-menus use “Back” option at the end of the sub-menu to go back. Tests can be exited from by pressing the select button at any moment. During a test active line indicator disappears and up/down buttons behavior depends on the selected test.

5. Status/error messages

5.1. Warnings & information

These messages only appear on the status & menu display and don't inhibit the machine operation. Depending on the message, they disappear after fixing the problem or either restarting the machine or using the Menu → Maintenance → Clear warnings option.

Free play ON

Free play mode is enabled. Go to Menu → Settings → Free-play mode to disable.

Punchbag release failed

Punchbag failed to release in one or more previous games. Could be caused by jammed punchbag hinges or someone holding the punchbag during release. Check the punchbag release mechanism and use Menu → Tests → Rotate release motor to test it.

Release motor OCP tripped

Over-current protection of the punchbag release motor tripped. Could be caused by jammed punchbag release mechanism. Check it and optionally test using the Menu → Tests → Rotate release motor option.

5.2. Errors

Machine errors are indicated by blinking all lights in red with "Err" on the score display and error code on the record display. Status & menu display shows the error description.

Error code 1

Internal communication problem on the motherboard. If the error persists after restarting the machine, the component is faulty and needs replacement.

Error code 2: Top sensors board missing

Top sensors & utilities board is not detected by the mainboard. Check the connection between the mainboard's TOP BOARD socket and the top board's TO MAINBOARD socket.

Error code 3: Invalid voltage

Voltage on specified power rail is incorrect. With machine powered off check the power supply connections. If necessary, carefully adjust the voltage using potentiometer on the power supply with machine powered on. If specified power rail is 5V then mainboard is faulty and needs replacement.

Error code 10: Invalid punchbag release detected

Punchbag has been detected in the released state when not expected. Put the punchbag in it's resting (top) position if released. If this doesn't help, check sensors and connections to the sensors & utilities board in the top part of the machine and use Menu → Tests → Punchbag sensors test to test.

Error code 11: Punchbag sensor error

Punchbag sensor has been detected as covered when it should not be. Check sensors and connections to the sensors & utilities board in the top part of the machine. Use Menu → Tests → Punchbag sensors test to test.

Error code 12: Release motor sensor error

No signal from the release motor sensor. Use Menu → Tests → Punchbag sensors test to check the sensor behavior. Check release motor sensor and connections to the sensors & utilities board in the top part of the machine.

6. Machine menu

This section describes selected menu entries in detail. Hierarchy is similar to the menu on the machine itself.

6.1. Maintenance

Various maintenance options to clear pending credits, reset current record and others.

6.2. Settings

6.2.1 Demo interval

Default: 3 min.

Controls interval between demo music or speech played to attract players.

6.2.2 Menu language

Default: English

Language used by the status & menu display. Currently available options are English and Polish.

6.2.3 Free-play mode

Default: Off

Lets players play the game for free.

6.2.4 Coin/bank channels

Used to set the game price. Configure with accordance to the connected payment devices configuration (coin validator, banknote acceptor etc.). Contains sub-menus to configure every available channel on 3 payment devices connectors and shows how many credits one coin/banknote/pulse will give. Each channel sub-menu contains Coins and Credits setting to set how many Coins must be inserted (i.e. pulses received) to gain specified number of Credits.

NOTE: In machines with JM WiFi or JM Single device preinstalled, game price is controlled by settings in the JM Operator app. In this situation only Card ch1 is used and should be left at it's default settings: coins = 1, credits = 1.

Default settings: 1 game = 2 PLN

Pulse value	Channel name	Coins (config)	Credits (config)	Credits
1 PLN	Coin ch1	2	1	0.5cr
2 PLN	Coin ch2	1	1	1cr
5 PLN	Coin ch3	2	5	2.5cr
N/A	Coin ch4	0	0	0cr
N/A	Coin ch5	0	0	0cr
N/A	Coin ch6	0	0	0cr
10 PLN	Bank ch1	1	5	5cr
20 PLN	Bank ch2	1	10	10cr
50 PLN	Bank ch3	1	25	25cr
100 PLN	Bank ch4	1	50	50cr
2 PLN	Card ch1	1	1	1cr

Example: 1 game = 1 EUR

Pulse value	Channel name	Coins (config)	Credits (config)	Credits
0.5 EUR	Coin ch1	2	1	0.5cr
1 EUR	Coin ch2	1	1	1cr
2 EUR	Coin ch3	1	2	2cr
N/A	Coin ch4	0	0	0cr
N/A	Coin ch5	0	0	0cr
N/A	Coin ch6	0	0	0cr
5 EUR	Bank ch1	1	5	5cr
10 EUR	Bank ch2	1	10	10cr
20 EUR	Bank ch3	1	25	25cr
50 EUR	Bank ch4	1	50	50cr
1 EUR	Card ch1	1	1	1cr

6.2.5 Inhibit connected

Default: On

Controls whether the connected payment devices handle and have inhibit signal connected. Inhibit signal is used to disable payment devices when menu is open or the error occurs that prevents the machine operation.

6.2.6 Shocker protection

Default: On

If enabled, machine will ignore pulses appearing on multiple inputs simultaneously to prevent possible use shocker or other jammer device to gain credits. If the installed payment device sends pulses at multiple channels simultaneously, disable this setting to avoid situations where player doesn't get a credit after inserting a coin.

6.2.7 Record

Starting value

Default: 800

Initial record value after reset.

Auto-reset on boot

Default: On

Controls whether record should be reset to the starting value after reaching the auto-reset min. value when the machine starts.

Auto-reset min. value

Default: 950

Minimum value for the auto-reset on boot to occur.

Bonus games for new record

Default: 1

How many free games the player will get after beating the record.

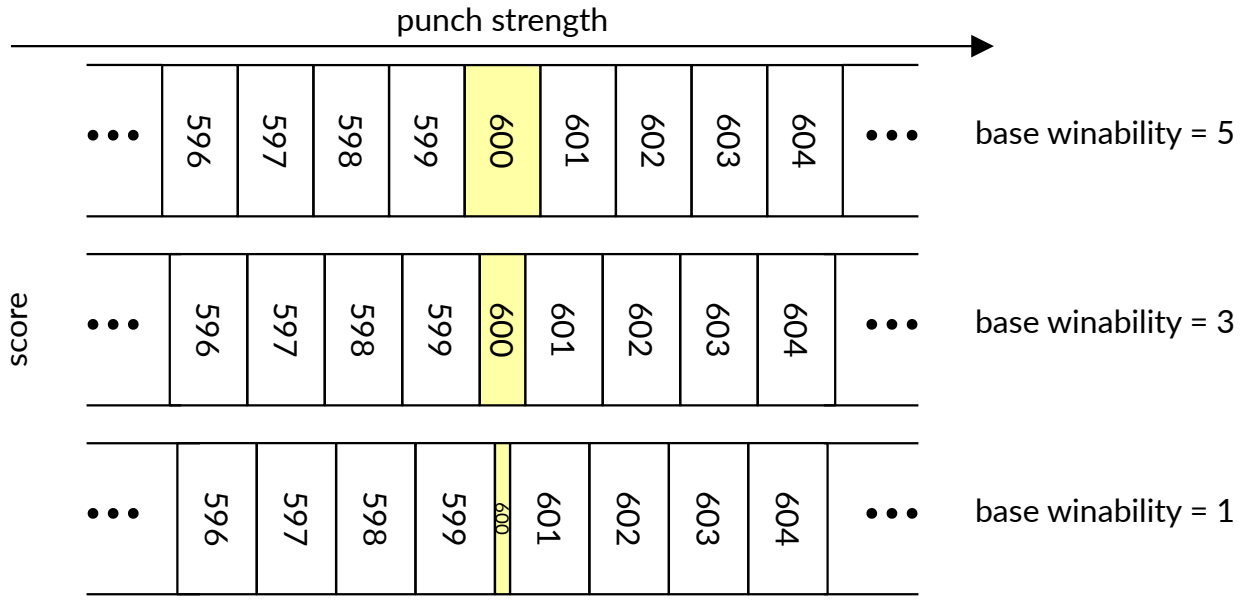
6.2.8 Prize settings

During every game player has a small chance of winning a prize which is controlled by the "base winability" setting. The machine keeps count of games that have been played since the last prize has been won, separate for each prize type. After said counter goes above a value controlled by the "help after" setting the machine starts helping the player by slightly increasing the required strength range that can win a prize with each game. To maintain the precision aspect of the game the helping range stops getting increased after 10 games.

Winability settings can be adjusted for each type separately. Setting for each prize type only affects how the score is calculated for scores which allow winning that specific prize. Affected scores are highlighted on the score tower when menu entry is selected. For example by changing the Prize 3 base winability setting one only affects the chance of player getting a score of 900.

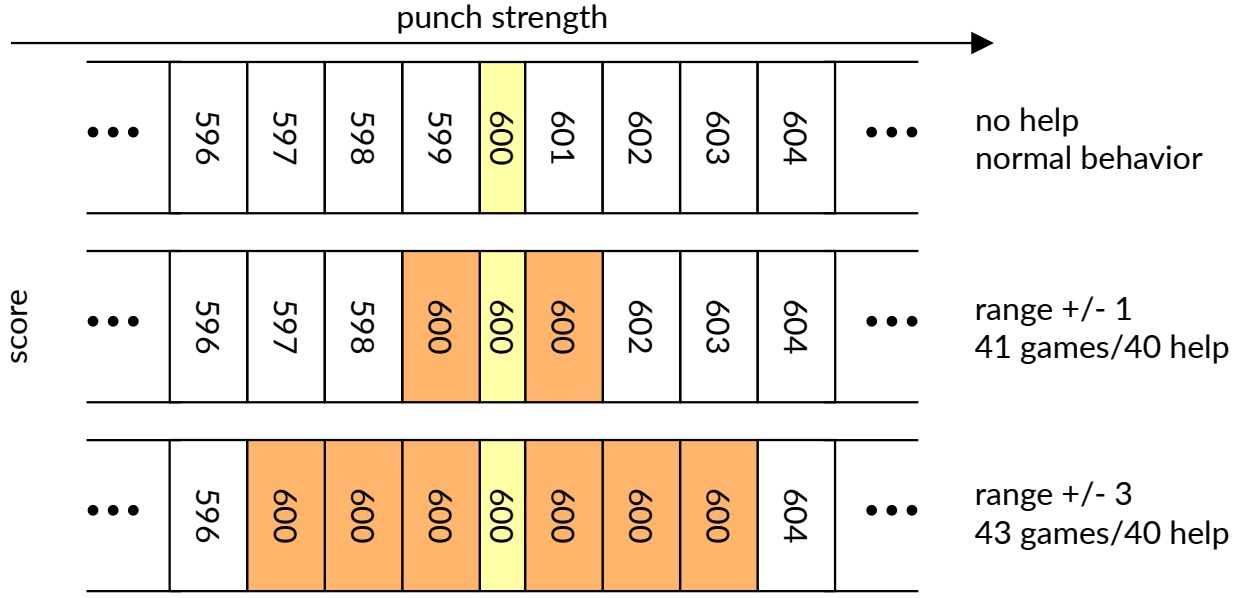
Prize <n> base winability

Determines how easily each prize-winning score for the specified type can be hit. Can be set from 1 to 5 where 1 is very low chance to hit (requires very high precision) and 5 is as easy as any other score. The drawing below illustrates how this setting affects the score calculation.



Prize <n> help after

Determines after how many games with no prize won the prize will start getting slightly easier to win with each game. When the score with applied base winability falls within calculated helping range the machine rounds it to a closest prize-winning score. The drawing below shows this behavior in detail.



Scores highlighted in orange are changed to 600. Helping range maxes out at +/- 10.

Prize <n> status

Shows helping status from the last game: whether no help or what helping range has been applied and games since the last prize counter compared to set “help after” value.

Default settings and scores for each prize/affected by each setting

	base winability	help after	scores for prize
Prize 1	3	100	200, 300, 400, 500
Prize 2	2	200	600, 700, 800
Prize 3	1	400	900

Default settings combined with game price of 2PLN and 20/50/100PLN prizes result in 10-15% overall winability ratio.

6.2.9 Min. game timeout

Default: 1.0s

Controls minimum required timeout after a game when player wants to play multiple games in succession and presses the start button repeatedly.

6.3. Counters

Various machine counters such as credits, dispensed prizes and score statistics that can be reset on demand.

6.3.1 Temp counters

Resettable version of credits and prize counters.

6.4. Tests

6.4.1 Coin validator test

Allows testing the coin validator and other payment devices together with their configuration.

6.4.2 Lights & display test

Allows checking whether every color of RGB light elements works and every segment of 7-segment displays (score, record, etc.) lights up properly. UP and DOWN buttons can be used to switch between colors/segments.

6.4.3 Lights connection check

Allows checking whether different lighting elements are connected properly. UP and DOWN buttons can be used to switch between elements.

6.4.4 All-lights-on test

Turns on all controllable light elements.

6.4.5 All-lights-off test

Turns off all controllable light elements.

6.4.6 Punchbag sensors test

Shows the state of punchbag and motor opto-sensors and the start button on both menu and 7-segment displays. Used to diagnose punchbag sensor errors or start button faults. A “-” character means the sensor is covered/pressed and letter (segment display) or “0” (menu display) means not covered/pressed. With punchbag latched in the top position no sensor should be covered.

The next option described below can be used to release the punchbag and check the sensor behavior.

6.4.7 Rotate release motor

Rotates release motor and releases the punchbag.

6.4.8 Release motor test

Turns on the release motor and shows the current consumption. UP and DOWN buttons control the motor speed.

6.4.9 Capsule 1/2/3 (left/mid/right) dispense

Dispenses one capsule from selected dispenser.

6.4.10 Sound test

Plays a test sound.

6.4.11 Game test (add credit)

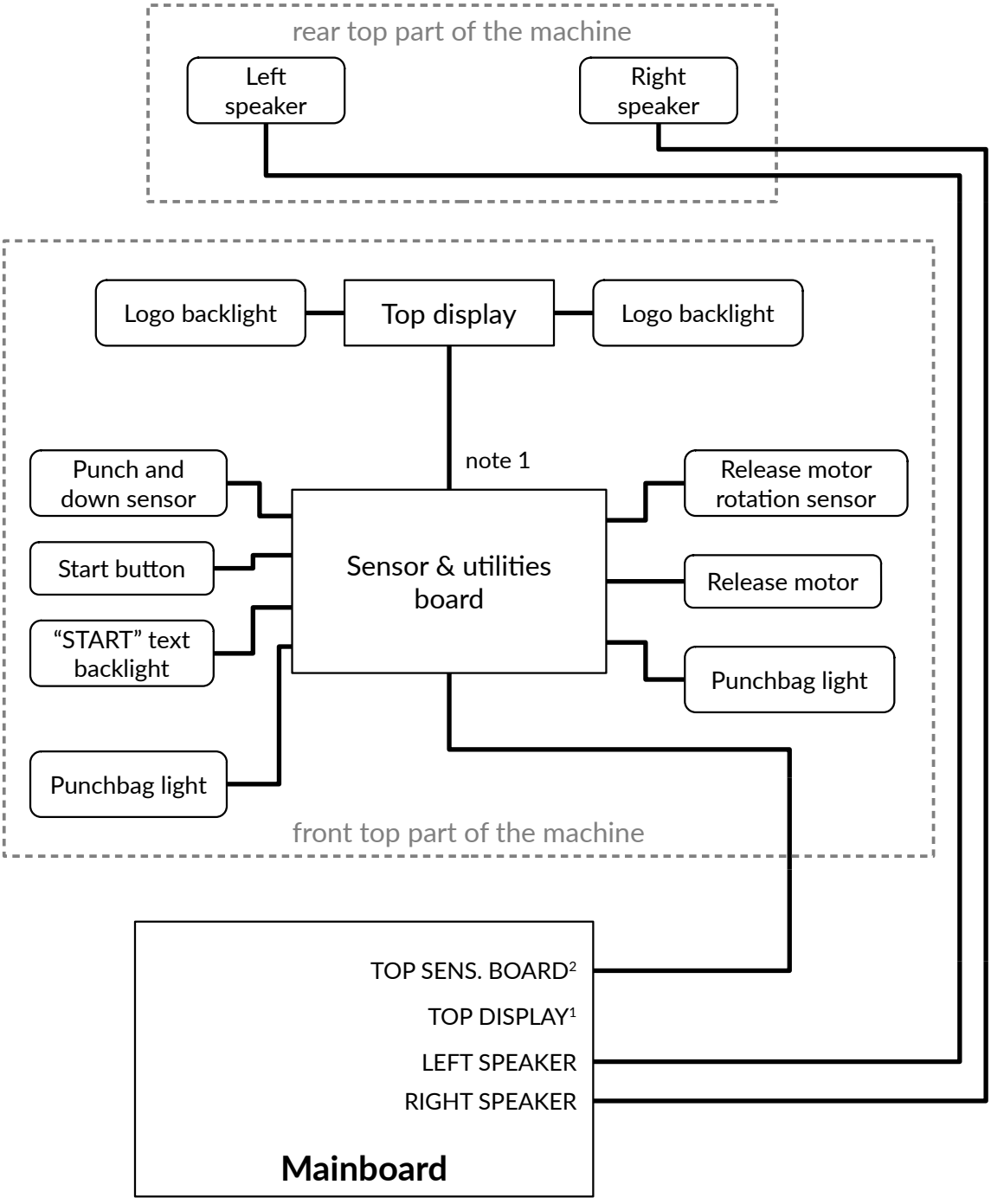
Adds a free credit (saved in the free-plays counter) that can be used to play a test game.

6.5. Info

Detailed information about the machine such as serial number, firmware/PCB versions, time the machine has been powered on and power supply voltages.

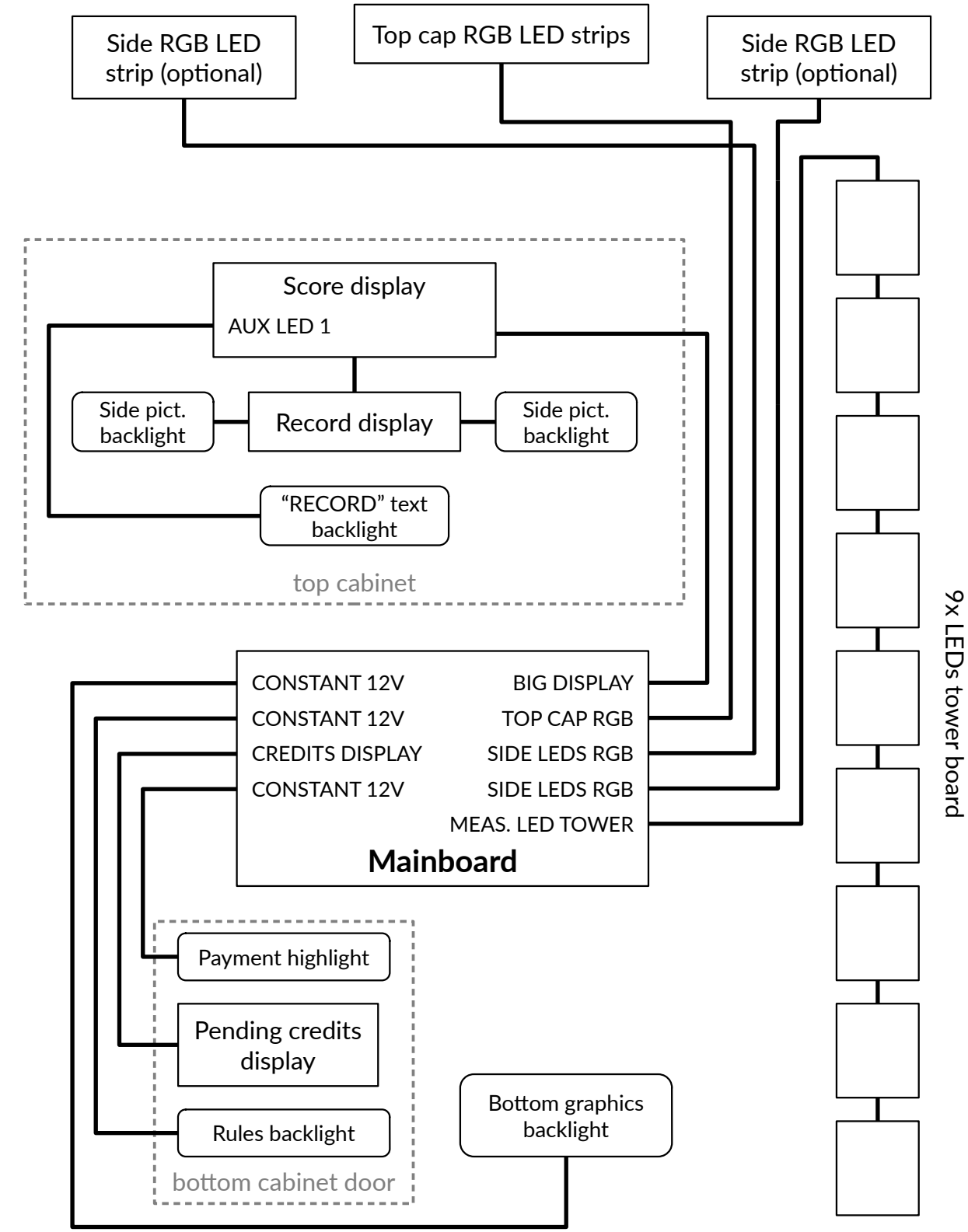
7. Wiring diagrams

7.1. Top part – punchbag hardware, lighting, speakers

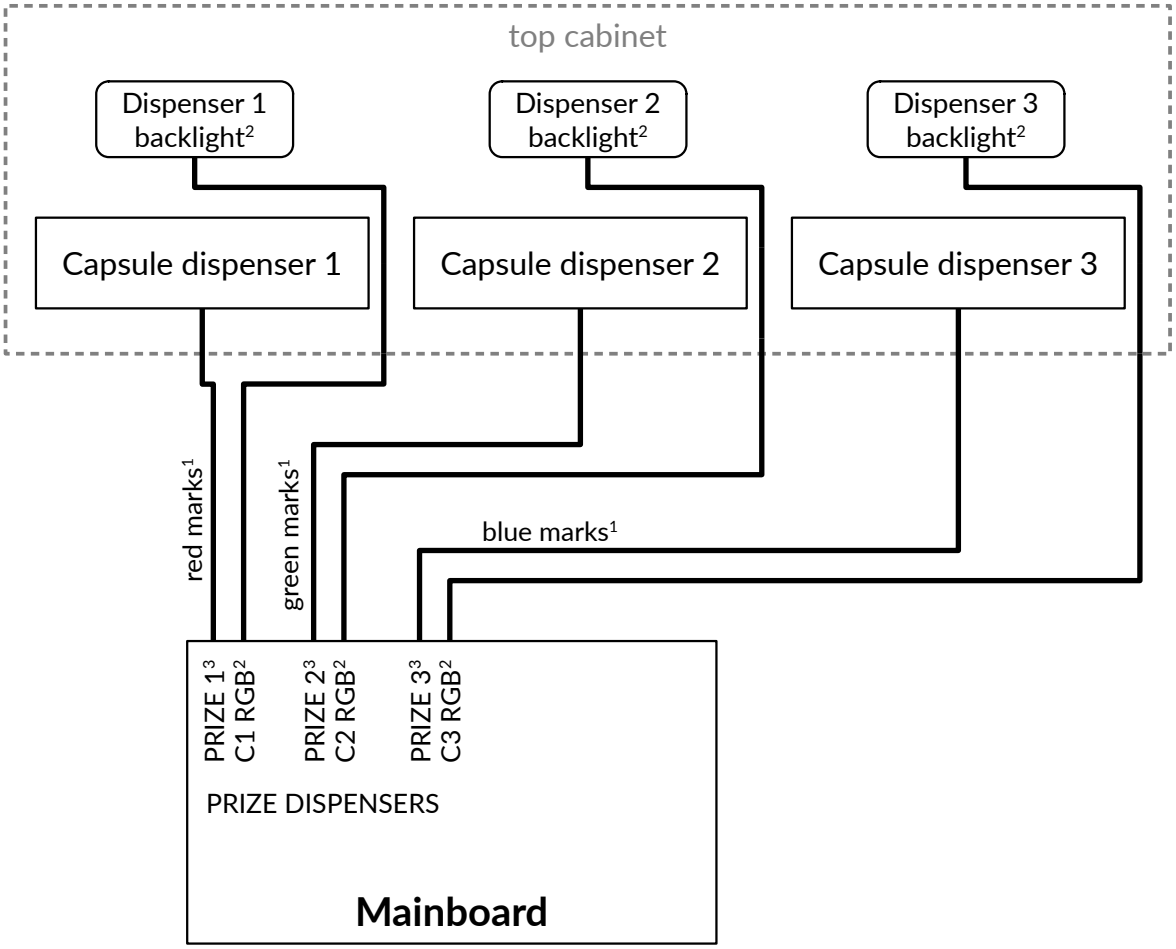


[1] on mainboards v5 and older top display is connected directly to the "top display" socket on the mainboard
[2] on mainboards v5 and older this socket is labeled as "punchbag & utils board"

7.2. Other lighting elements and displays

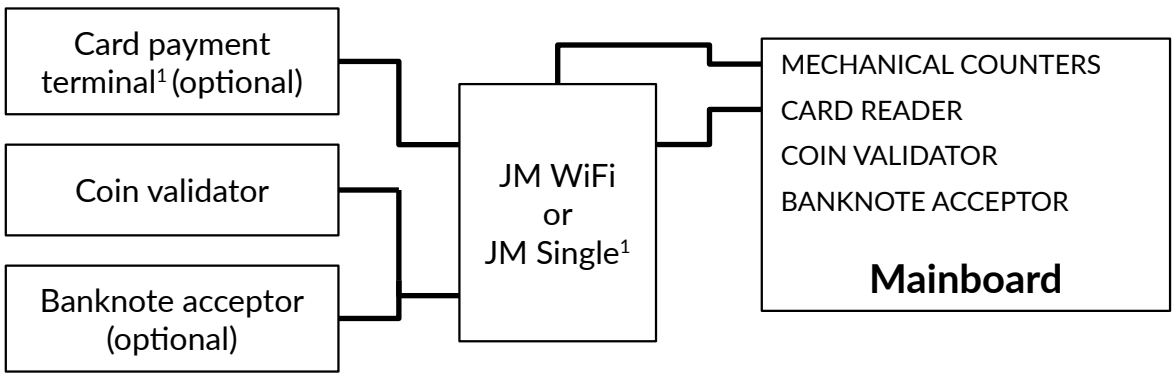


7.3. Prize dispensers



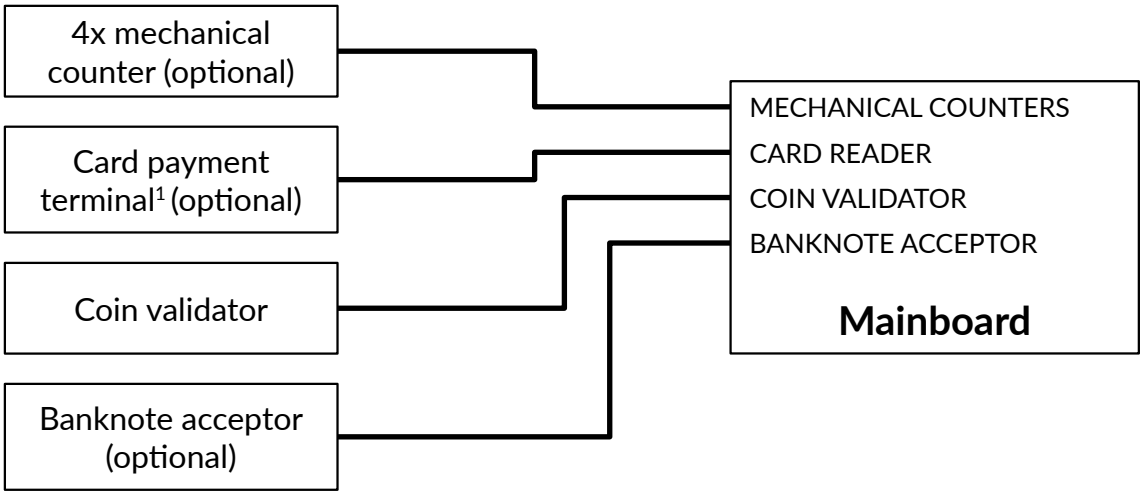
[1] dispensers' cables are marked with indicated color on both ends, blue one is only present in units with capsule dispensers
[2] dispenser backlight is only present in units with serial number below CB0060
[3] there are 2 connectors for each prize dispenser – only one must be in use, this variant uses 4-pin sockets

7.4. Counters and payment devices (JM WiFi or JM Single preinstalled)



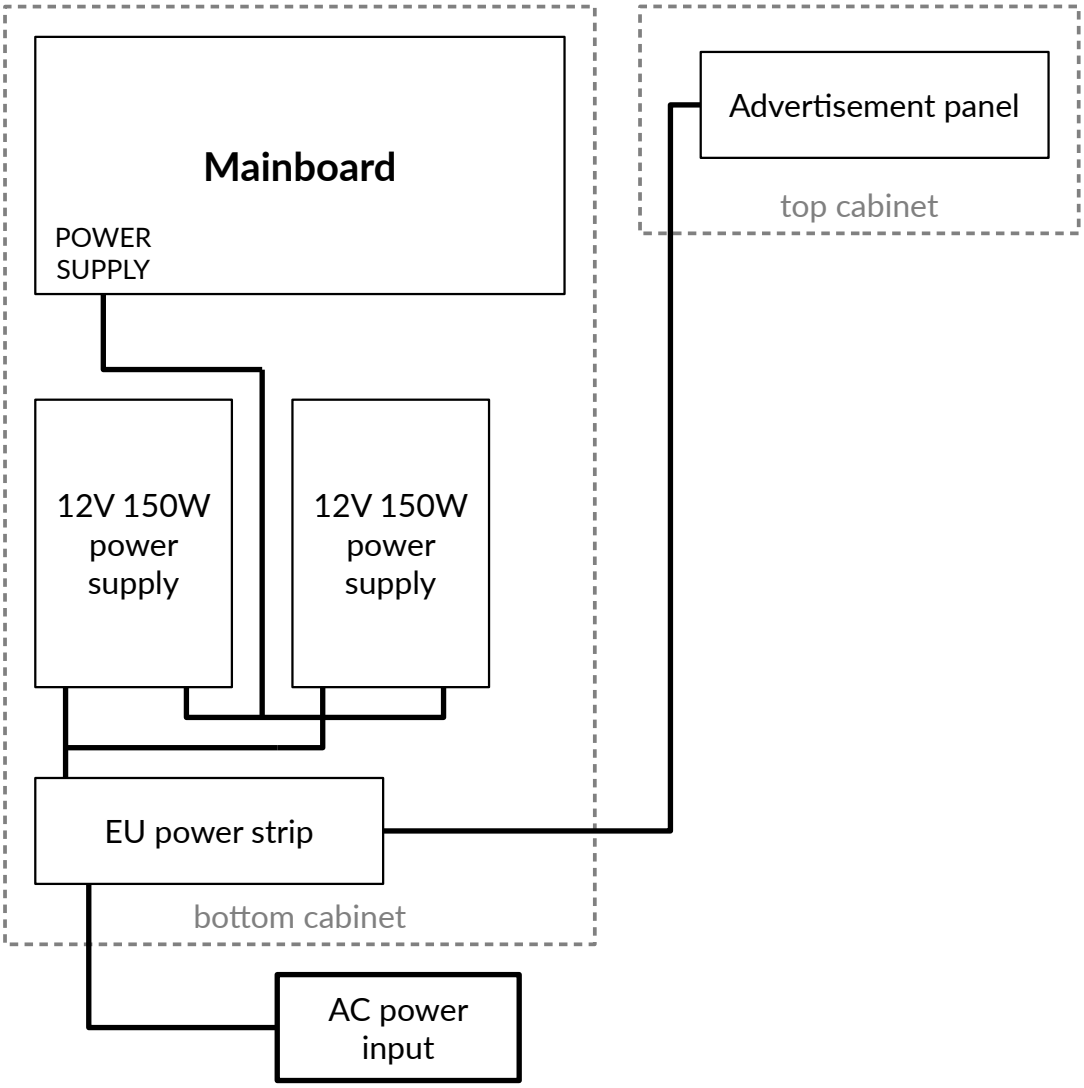
[1] antenna is located on top of the top cabinet, remove top cap to access

7.5. Counters and payment devices (no JM WiFi or JM Single)

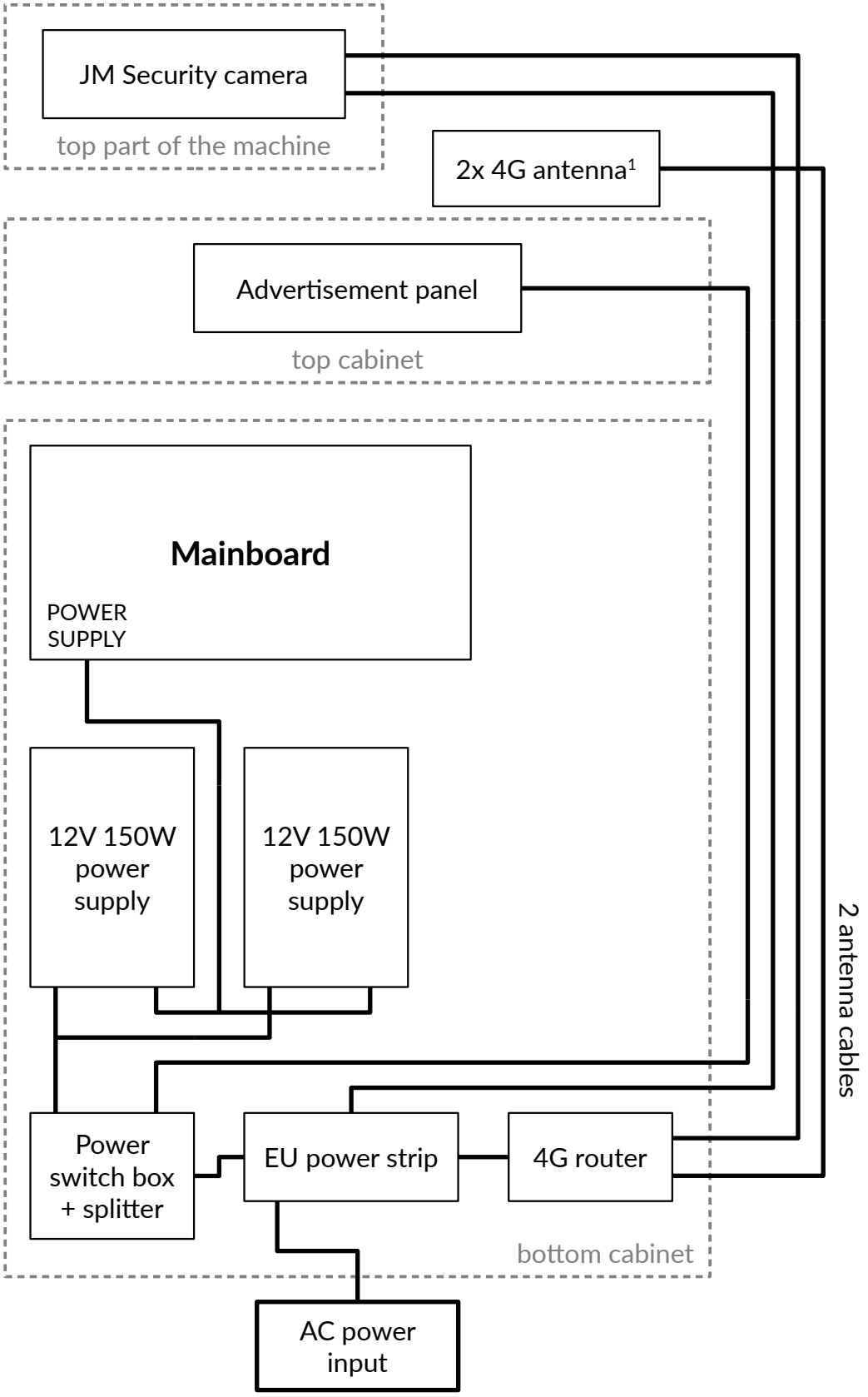


[1] antenna is located on top of the top cabinet, remove top cap to access

7.6. Power supply connections & misc. (without JM Security)



7.7. Power supply connections & misc. (with JM Security)



[1] antennas are located on top of the top cabinet, remove top cap to access

8. Revision history

Version 1 (2025-01-26)

- initial release

Version 2 (2025-03-23)

- added imperial units to size and weight
- added available colors list
- added Extra Games Boxer, Ticket Boxer, Prize Boxer and Golden Boxer variants and filled in necessary details about them
- added serial numbering explanation
- added error code numbers in errors section
- fixed mistake in example price settings table for 5PLN in "1game = 2PLN" table and 2EUR in "1game = 1EUR" table
- various grammar fixes

Version 3 (2025-04-21)

- changes in Errors and Machine menu sections to reflect changes in newest firmware version
- initial release in Polish language

Version 4 (2026-09-07)

- added new variants: Gift Card Boxer, Just a Boxer, Kebab Boxer, Ninja Boxer, Coin Boxer
- created separate manual for Cash Boxer variant