

Diamond Cabinet

HD (type)

User's Manual

Revision 1.0

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2 Revision History

| Version | Date | Author | Description |
|----------------|-------------|---------------|--------------------------|
| 1.0 | 2013.14.03 | DLV | Initial document release |

3 Overview

3.1 Dimensions

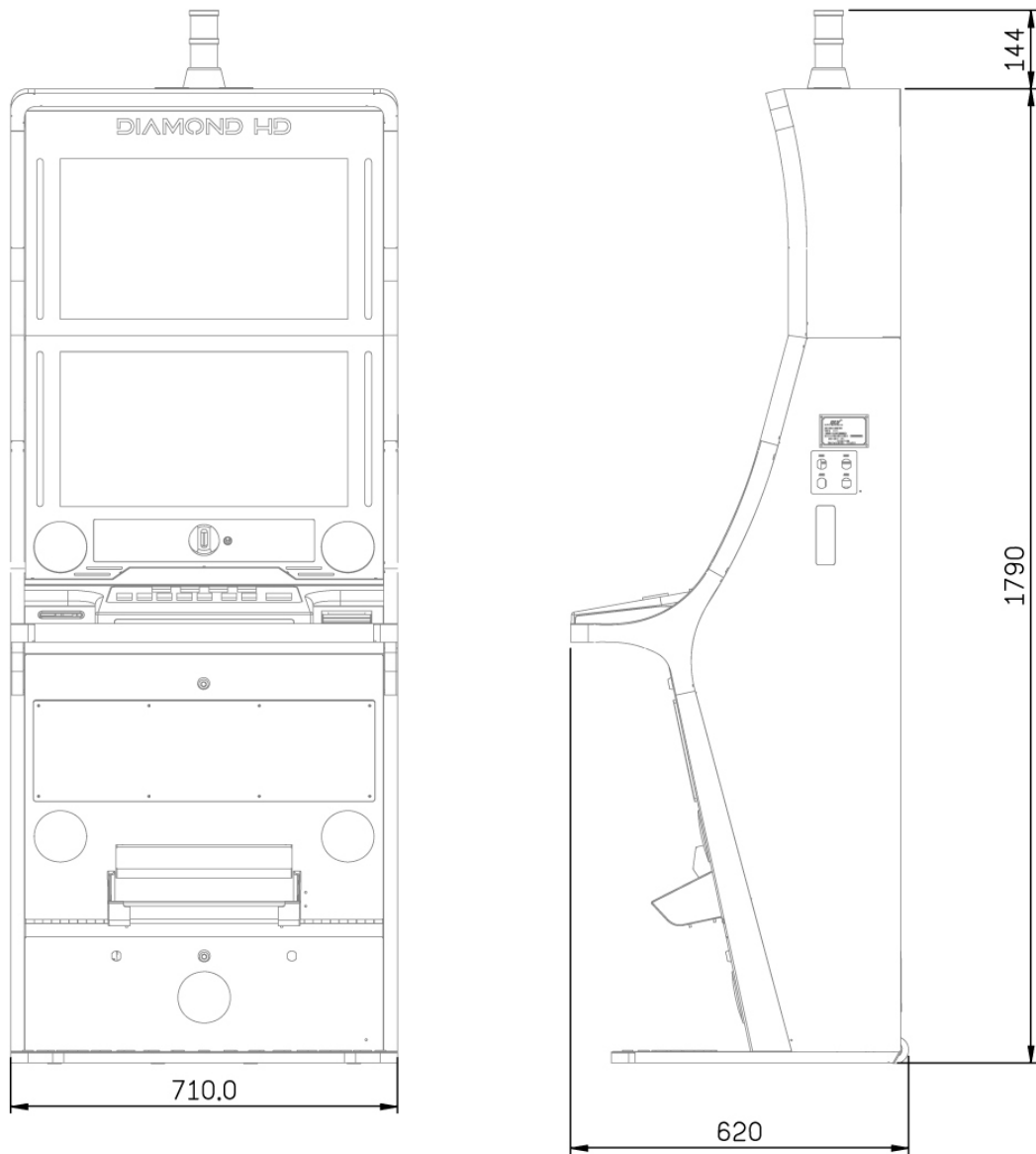


Figure 1: Machine dimensions

3.2 Operating Elements

1. Coin entry
2. Bill entry
3. Main door lock
4. I-Button key (optional)
5. Coin tray

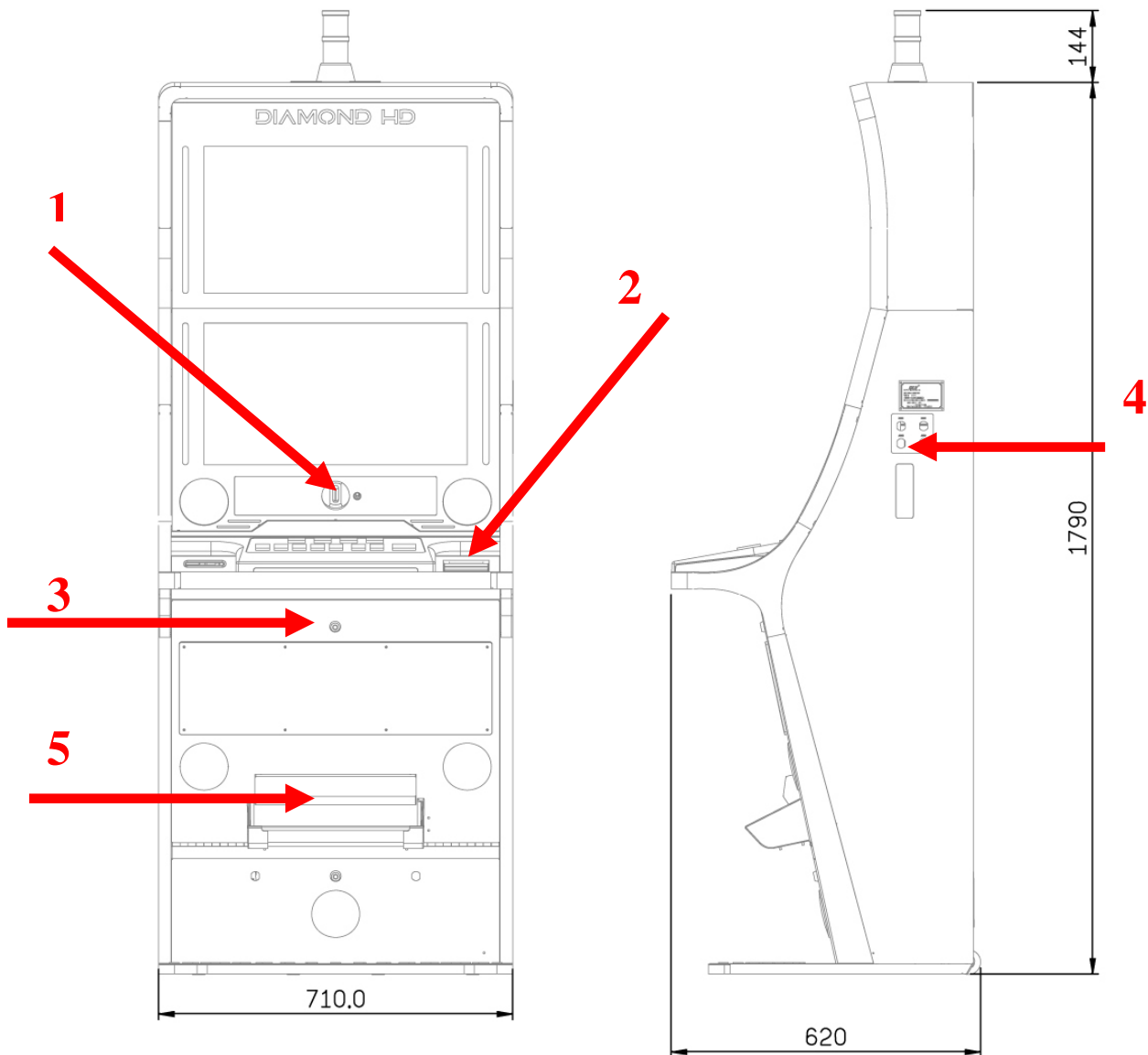


Figure 2: Machine Operating Elements

3.3 Description of components

1. Top light
2. Monitors
3. Games PCB
4. Power Supply Unit
5. Power Supply Main
6. Bill Acceptor
7. Hopper
8. Coin Acceptor
9. Loudspeaker
10. Buttons panel
11. Ticket Printer

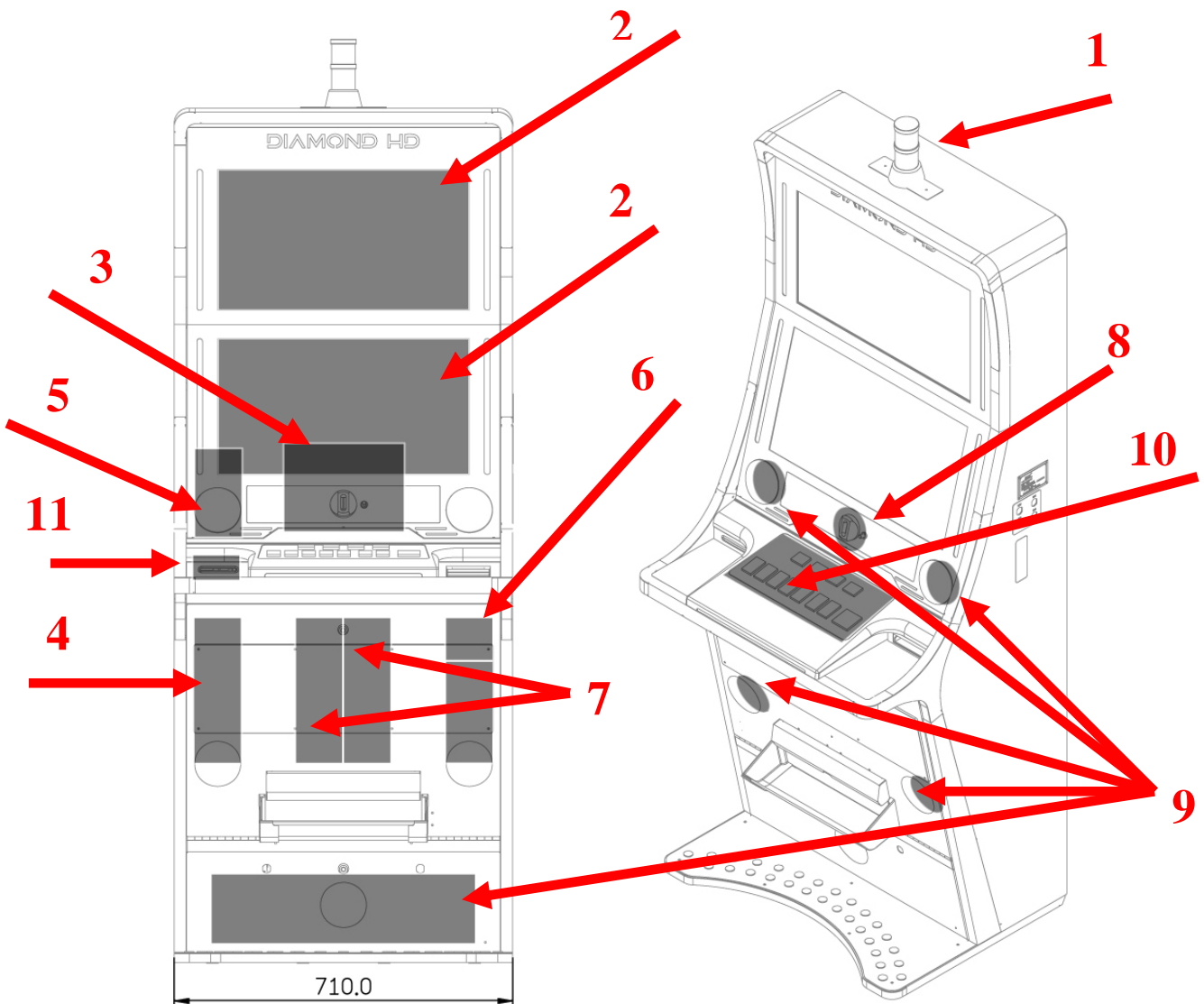


Figure 3: Description of components

4 Installation

4.1 Installation instructions

It must be ensured that the machine is operated in an upright position.

The minimum distance between two machines should be 10 cm to avoid possible damage when opening the main door. The minimum distance to a possible back wall or the like should be 10 cm.

4.2 Power up

Before start check the line voltage and grounding. Machine is designed to operate at 100~120V/200~240V, 50-60Hz.

AC power outlet to which machine is connected should be easily accessed in case of emergency.

4.3 Safety precautions

This section is provided to avoid damage to the machine and minimize damage and chances of electric shock to maintenance personnel and users.

ATTENTION:

The following service instructions are for use by qualified or trained personnel only. The appliance is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction and children being supervised not to play with the appliance

4.3.1 Static sensitive parts

Machine contains static-sensitive components, which could be damaged by electric discharges. Before maintaining inner components of the machine always touch ground straps inside the machine to neutralize electric charges.

4.3.2 Power off

In case of emergency power off the machine!

The machine will be completely powered off only when the AC plug is removed from the outlet.

If the machine is connected with the uninterruptible power supply, be sure to switch it off.

WARNING: Unplugging the machine with wet hands or in wet environment can result in electric shock.

4.3.3 Cabinet ventilation

Do not block or insert any objects into the ventilation holes. This may result in machine overheating or could result in risk of fire or electric shock.

Provide adequate space between machine and other objects, to allow normal ventilation conditions.

4.3.4 Liquid

Avoid spilling any kind of liquids on the machine. **Never don't clean the machine with the water jet.** This may result in risk of fire or electric shock. In case of the accident, unplug the machine immediately and contact the qualified technical staff.

4.3.5 Avoid damages to the wires

Damaged power cord can result in a risk of fire or short circuit. If the power cord is damaged, it must be replaced by a special cord available from the manufacturer or its service agent.

4.3.6 Uncommon behavior

If there are unusual sounds, lights or smells coming out of the machine, power off the machine completely and contact the qualified technical staff. Failure of doing so may result in risk of fire.

4.3.7 Wires

Make sure that all the wires inside and outside of the machine are not damaged, squeezed or stretched. Also check the wire near the AC plug is not frayed. Damaged wires can cause short circuit or fire risks.

4.3.8 Environment

Machine is suitable for indoor use only!

Do not expose the machine under any circumstances to wet environments or temperatures greater than 50°C.

After transportation or storage in cold environments do not power up machine immediately, wait for machine to reach normal operating temperature.

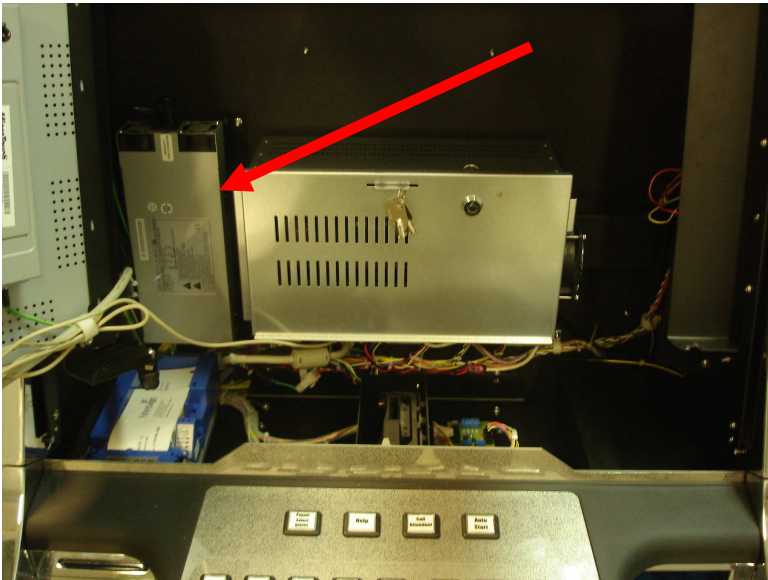
The recommended operating temperature is between 10°C and 35°C and relative humidity of 30% to 80% (non-condensing).

Do not install machine near heaters or other electronic devices that produce a lot of heat or dust. Failure of doing so can result in risk of machine malfunction, overheating or fire.

5 Power supply

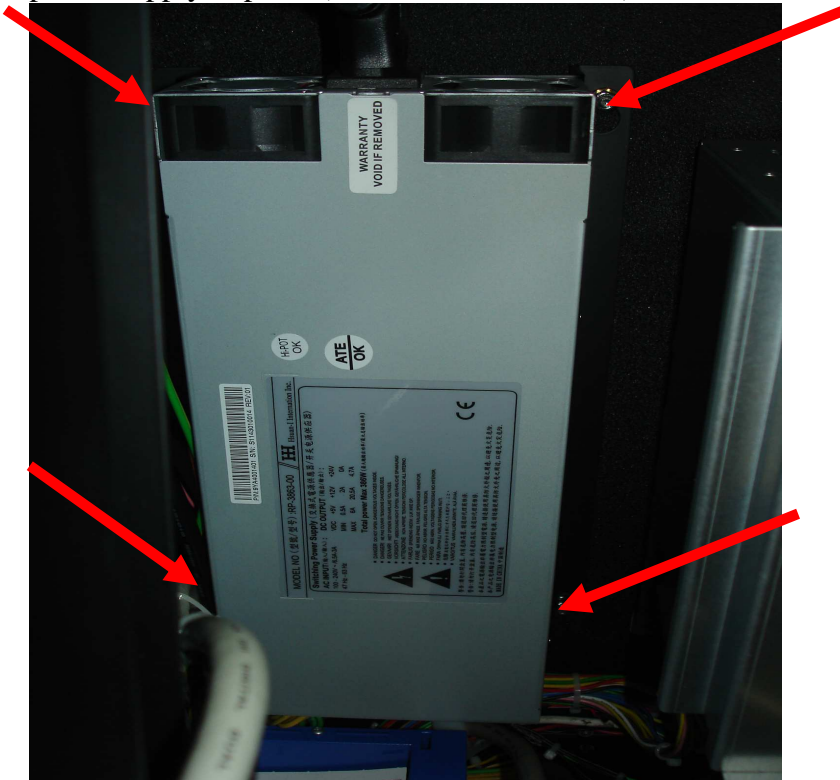
5.1 Position in machine

The power supply is located near the Games PCB (as shown on picture).



5.2 Removal

To remove the power supply, disconnect all the wiring and unscrew four screws that hold the power supply in place (shown with red arrows).



5.3 Characteristics

| | |
|-------------|-----------------------|
| Type | Hsuan-I International |
| Model | PR-3863-00 |
| Input | 100-240V~ , 47Hz-63Hz |
| Output | +5V:6A |
| Output | +12V:20.5A |
| Output | +24V:4.7A |
| Output watt | 386 W |

5.4 Connectors

5.4.1 DC Output Connector

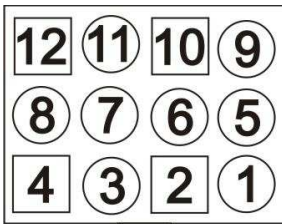


Figure 4: DC Output Connector

| Pin No. | Color | Description |
|-------------|--------|-------------|
| 4, 8, 12 | RED | +5V |
| 5, 9 | YELLOW | +12V |
| 7, 11 | GREEN | +24V |
| 2, 3, 6, 10 | BLACK | GND |
| | | |

Table 1: DC Output Connector Pin Layout

6 Coin Acceptor

6.1 Function

Type **NRI G-13 (parallel or CCTalk mode)** or compatible coin acceptor with up to 6 pre-programmed coin channels

The coin diverter is mounted underneath the coin acceptor and sorts the coins depending on the hopper fill level either to the hopper or directly to the cash box.

6.2 Accepted coins

Machine can accept following coins:

| Country | Coin value |
|---------|------------|
| Latvia | 1 LVL |

Table 2: Accepted coin table

6.3 Error Handling

1. Unplug the machine and open the main door;
2. Turn the handle to left position and move the buttons panel forward
3. Check that the coin acceptor is positioned correctly, remove any jammed coins;
4. Ensure that the coin acceptor cable is connected properly to the device;
5. Check if coin sorter can freely move for one position to another.

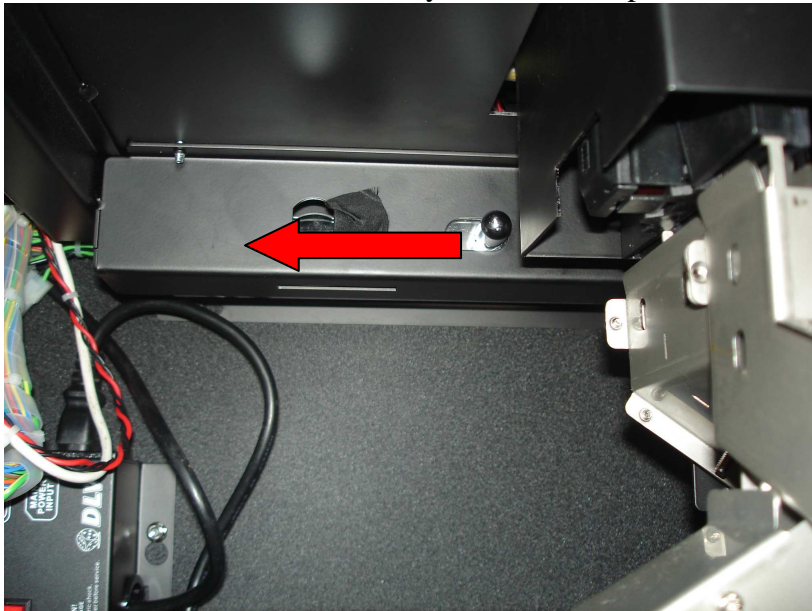


Figure 5: Moving handle direction position

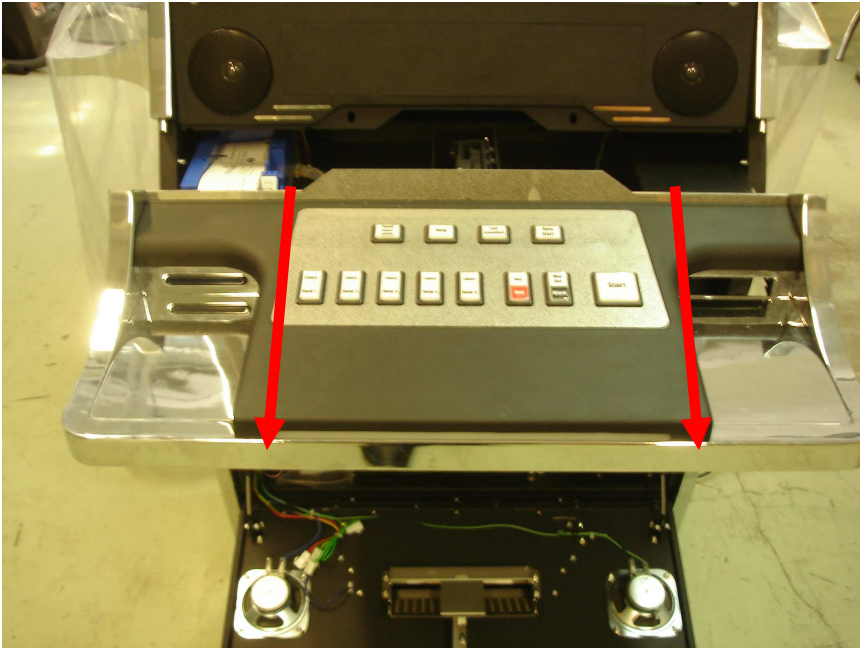


Figure 6: Buttons panel direction position

6.4 Replacement

If coin acceptor can not be fixed in-place, the complete device should be replaced.

1. Unplug the machine and open the main door;
2. Unscrew four screws
3. Loosen black plastic brackets;
4. Tilt the upper part of coin acceptor first, and then remove coin acceptor from the bracket;
5. Unplug the cable;
6. Repeat steps above in the reverse order;



Figure 7: Coin Acceptor bracket position



Figure 8: Removal of the coin acceptor

6.5 Connector

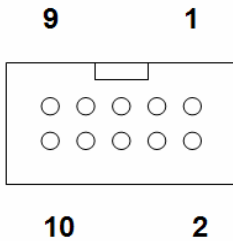


Figure 9: Coin Acceptor Connector

| Pin No. | Description | Potential |
|---------|----------------|-------------|
| 1 | GND | Low |
| 2 | +12V DC | High |
| 3 | Coin E | Active low |
| 4 | Coin F | Active low |
| 5 | Return | Active low |
| 6 | Common inhibit | Active high |
| 7 | Coin A | Active low |
| 8 | Coin B | Active low |
| 9 | Coin C | Active low |
| 10 | Coin D | Active low |

Table 3: Coin Acceptor Connector Pin Layout

7 Coin Hopper

7.1 Function

Type Universal MK4 Hopper Money Controls_(Standart or CCTalk mode) or compatible hopper

WARNING: Machine should be powered off before removing or installing coin hopper!

7.2 Payout coins

Machine can pay out following coins:

| Country | Coin value |
|---------|------------|
| Latvia | 1 LVL |

Table 4: Payout coin table

7.3 Error Handling

1. Check the correct mounting of the hopper;
2. Check the plug fitting;
3. Remove jammed coins if such exist
4. Clean the hopper from dirt and dust

7.4 Replacement

1. Unplug the machine and open the door forward
2. Open the hopper door.
3. Remove the Hoppers forward.

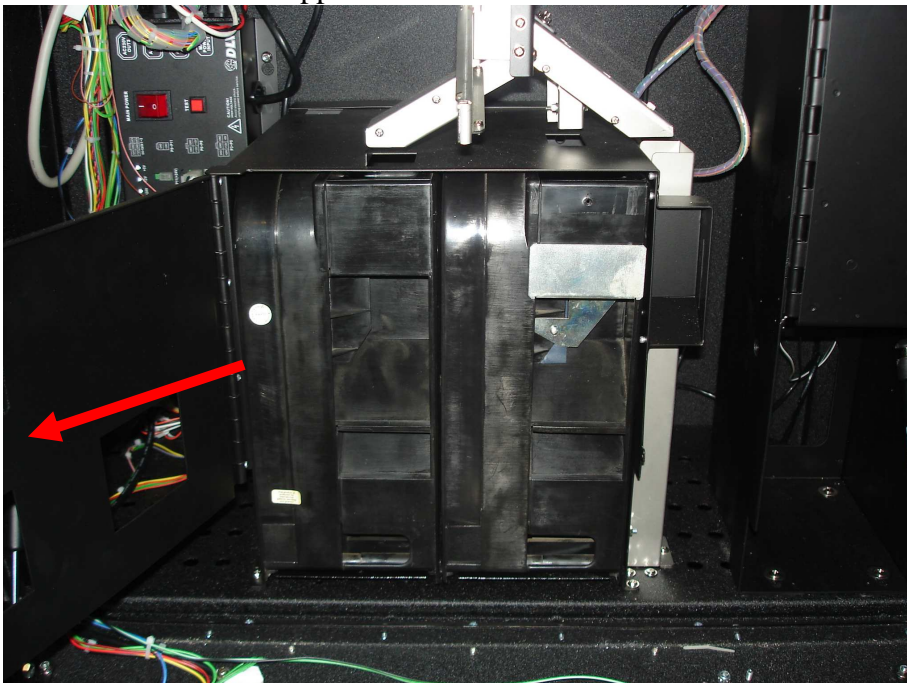


Figure 10: Hopper Door Open Direction

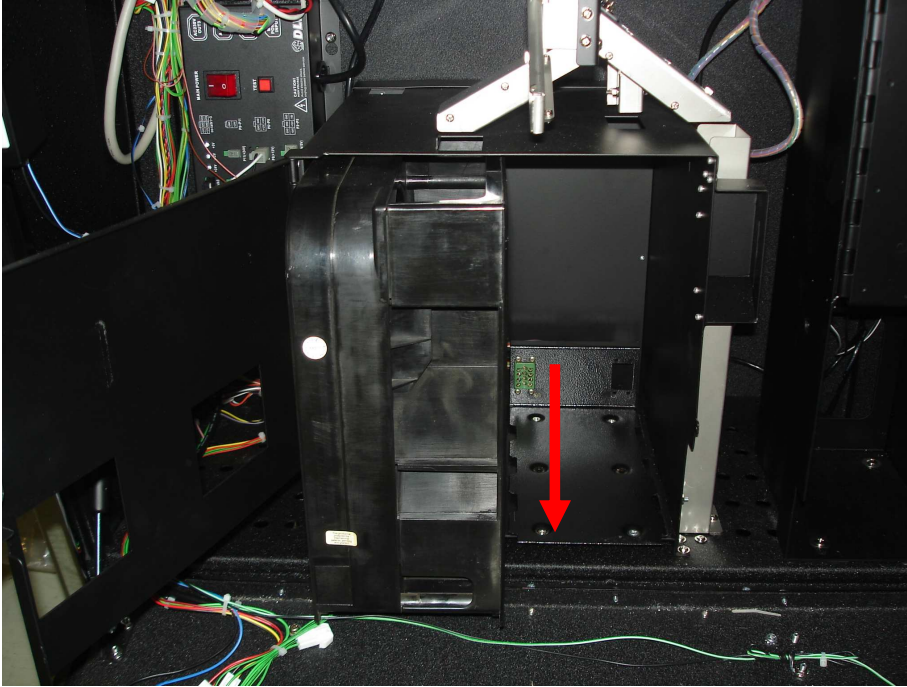


Figure 11: Coin Hopper Remove Direction

7.5 Connector

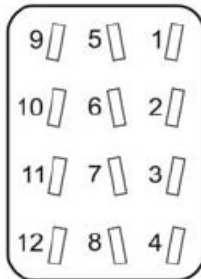


Figure 12: Coin Hopper Connector

| Pin No. | Description |
|---------|-------------------------|
| 1 | Motor supply 0 volt |
| 2 | Logic 0 volt |
| 3 | uP Sensor Output |
| 4 | IN1 |
| 5 | Security output |
| 6 | High level sense output |
| 7 | Low level sense output |
| 8 | IN2 |
| 9 | Motor supply +24V |
| 10 | Logic supply |
| 11 | Raw Sensor Output |
| 12 | IN3 |

Table 5: Coin Hopper Connector Pin Layout

7.6 Exploded view

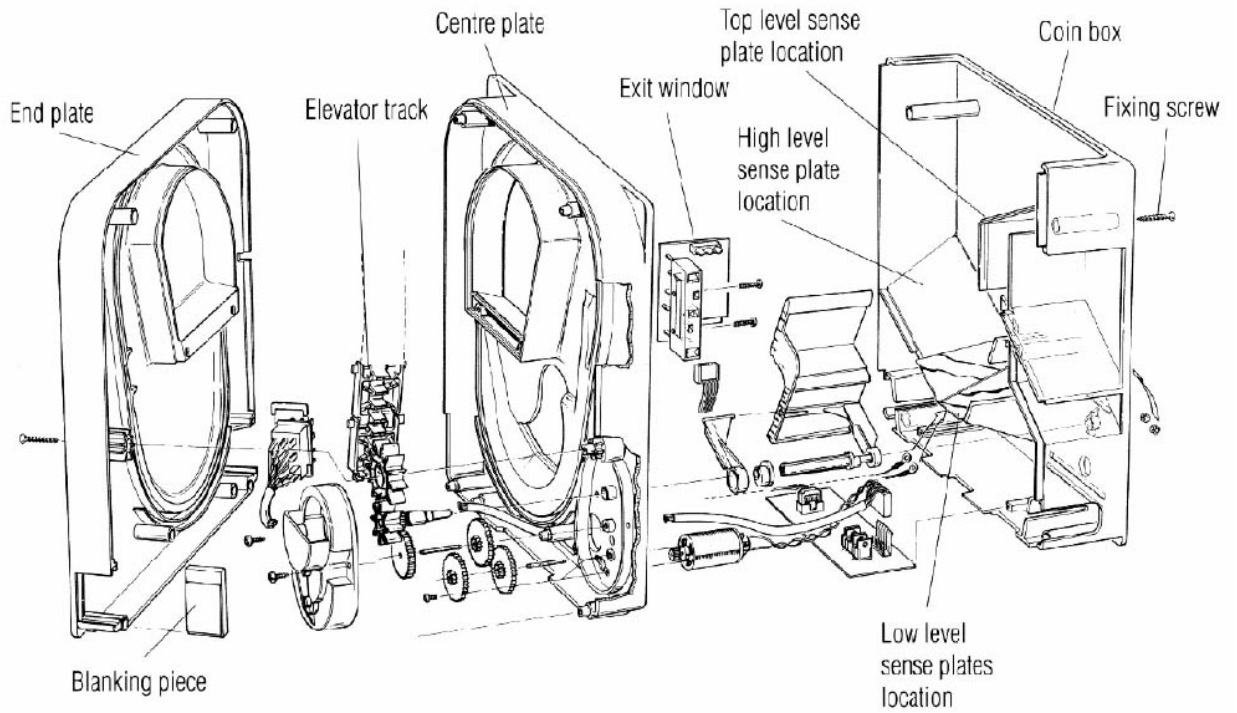


Figure 13: Coin Hopper Exploded View

8 Bill Acceptor

8.1 Function

Type JCM UBA/Cash Code / MEI Cashflow

The Bill validator accepts the bank notes in all 4 directions. By changing software in flash memory any country settings can be adjusted.

8.2 Accepted bills

Machine can accept and handle following banknotes

| Country | Bill value |
|---------|------------|
| Latvia | 5 LVL |
| | 10 LVL |
| | 20 LVL |
| | 50 LVL |
| | 100 LVL |

Table 6: Accepted bill table

8.3 Adjustment and troubleshooting

Check +12V with Voltmeter at the output of the power supply unit.

In case of a short circuit in the machine the power supply switches off automatically.

Switch machine back on after repair of the short circuit. In most cases the power supply unit work properly again (yellow lit).

8.4 Error handling

8.4.1 Cleaning

To clean the lenses, use a lint-free cloth and mild nonabrasive detergent such as liquid dish soap mixed with water.

1. Pull the tabs on both sides of the acceptor forwarded to open the acceptor's head;
2. Open the acceptor head front and rear covers to clean bill path, rollers and belts.

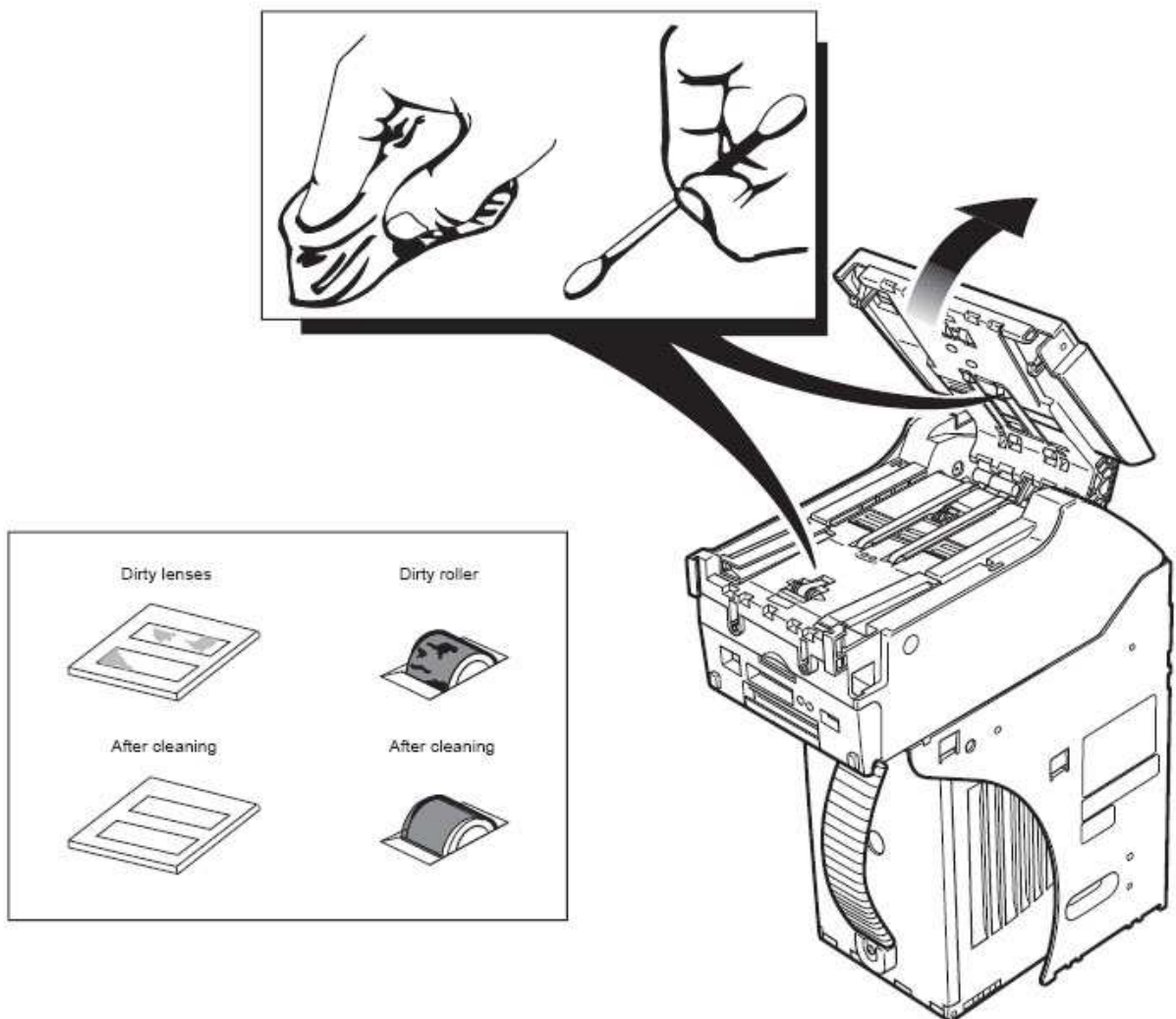


Figure 14: Bill Acceptor Cleaning

8.4.2 Bill is jammed in Acceptor

When a bill is jammed near the entrance of the stacker box, unlock the box and pull it out to remove the jammed bill.

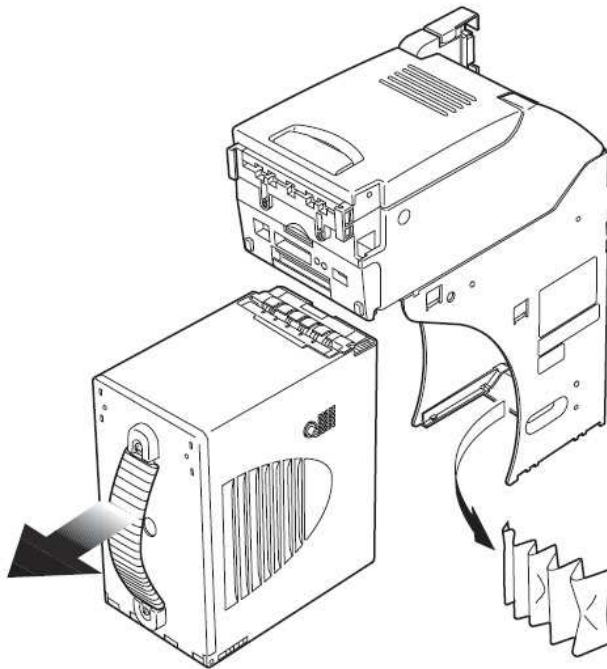


Figure 15: Removing jammed bill from the Bill Acceptor Stacker

8.4.3 Bill is jammed near the acceptor's entrance

When a bill is jammed near the acceptor's entrance, pull the tabs on the top of the acceptor to open the cover of acceptor's unit. Remove the jammed bill.

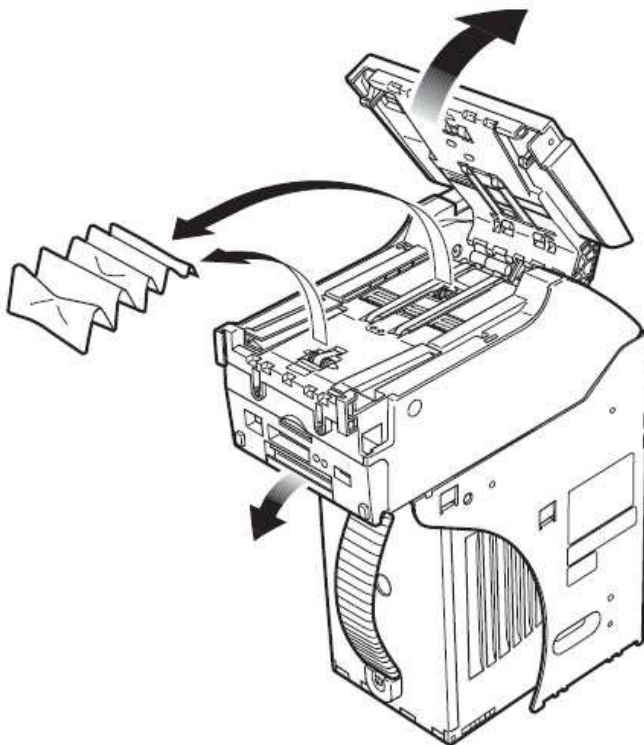


Figure 16: Removing jammed bill from the Bill Acceptor entrance

8.5 Connector

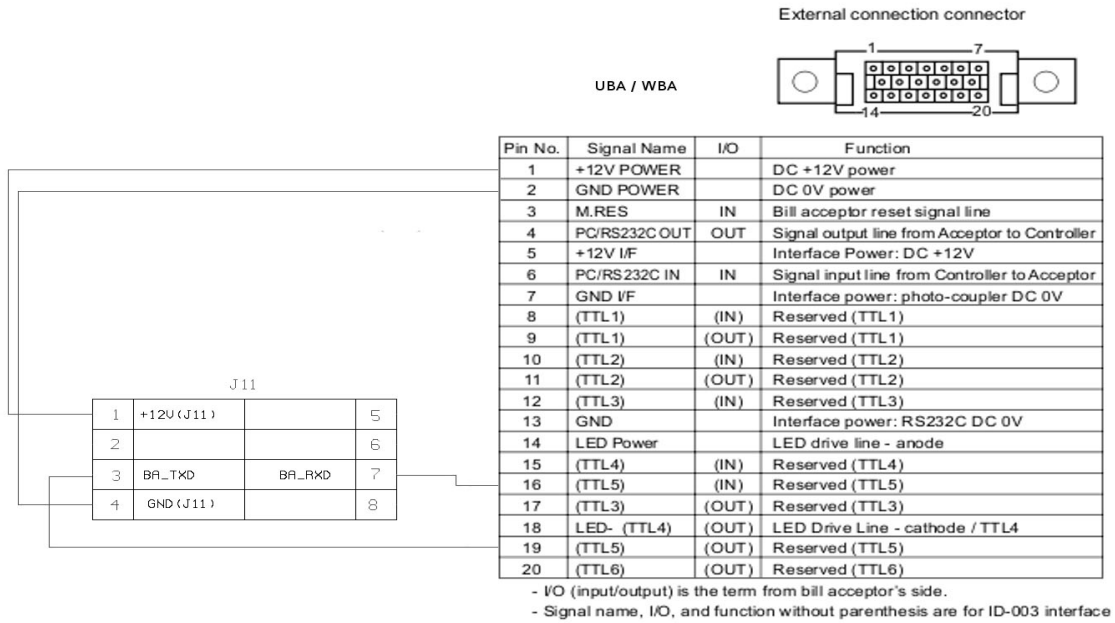


Table 7: Bill Acceptor Connector Pin Layout

9 Hardware meters

9.1 Position in machine

Hardware meters are mounted on the right wall inside the cabinet next to gaming board.



Figure 17: Hardware Meters Position in Machine

9.2 Function

1. CREDITS WAGERED
2. CREDITS WON
3. GAMES PLAYED
4. BILL IN
5. COIN DROP
6. HANDPAY

9.3 Troubleshooting

1. Check the connectors of the meter unit.
2. If an error message is triggered by a malfunction or non-activation of individual meter, the device must be removed from the operation and the meters circuit board must be exchanged.

9.4 Exchange of the meters

If any defects cannot be repaired, the defective meter has to be exchanged.

1. Unplug the machine and open the main door;
2. Unscrew screws as shown on picture;
3. Remove meters circuit board;
4. Unplug cable from the meters circuit board;

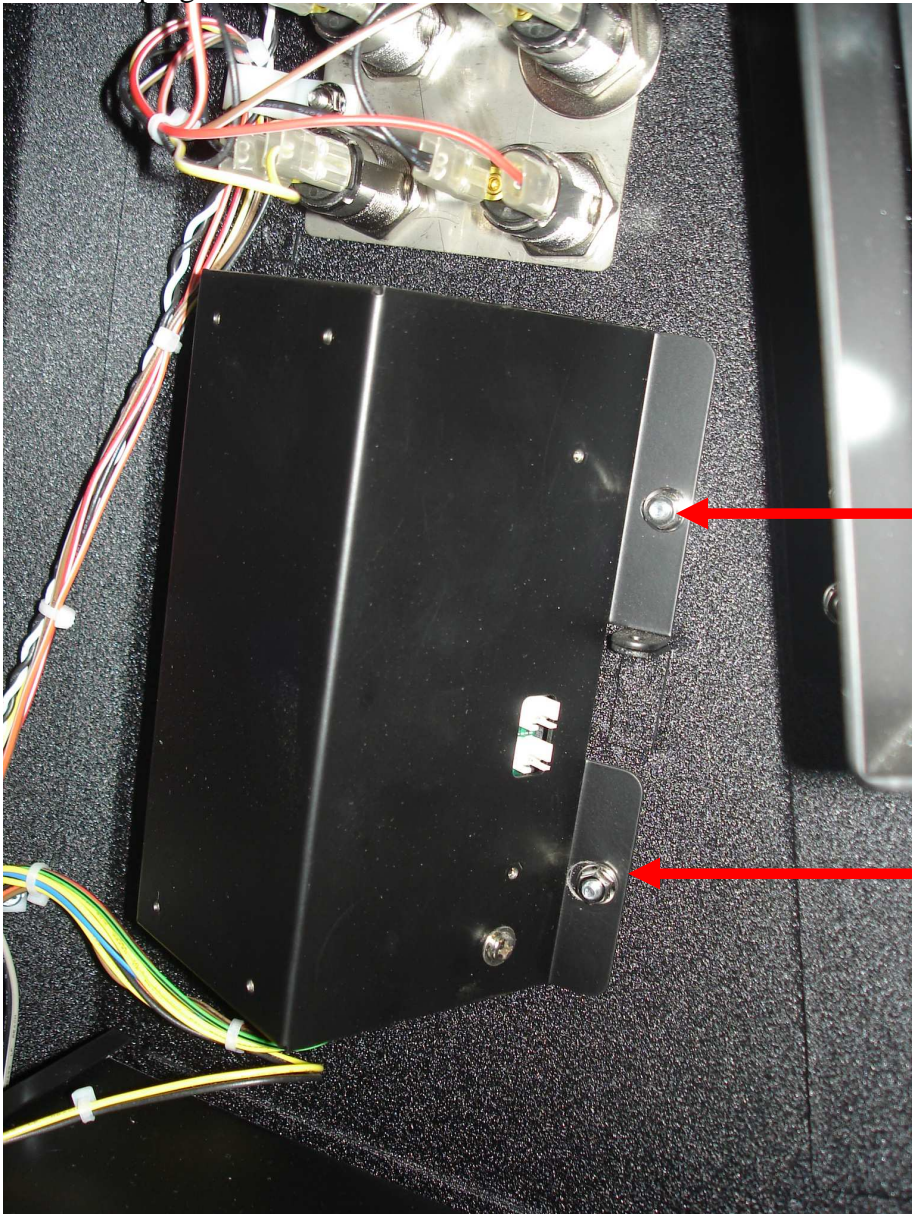


Figure 18: Exchange on the Hardware Meters Circuit Board

10 Monitors

10.1 Position in machine

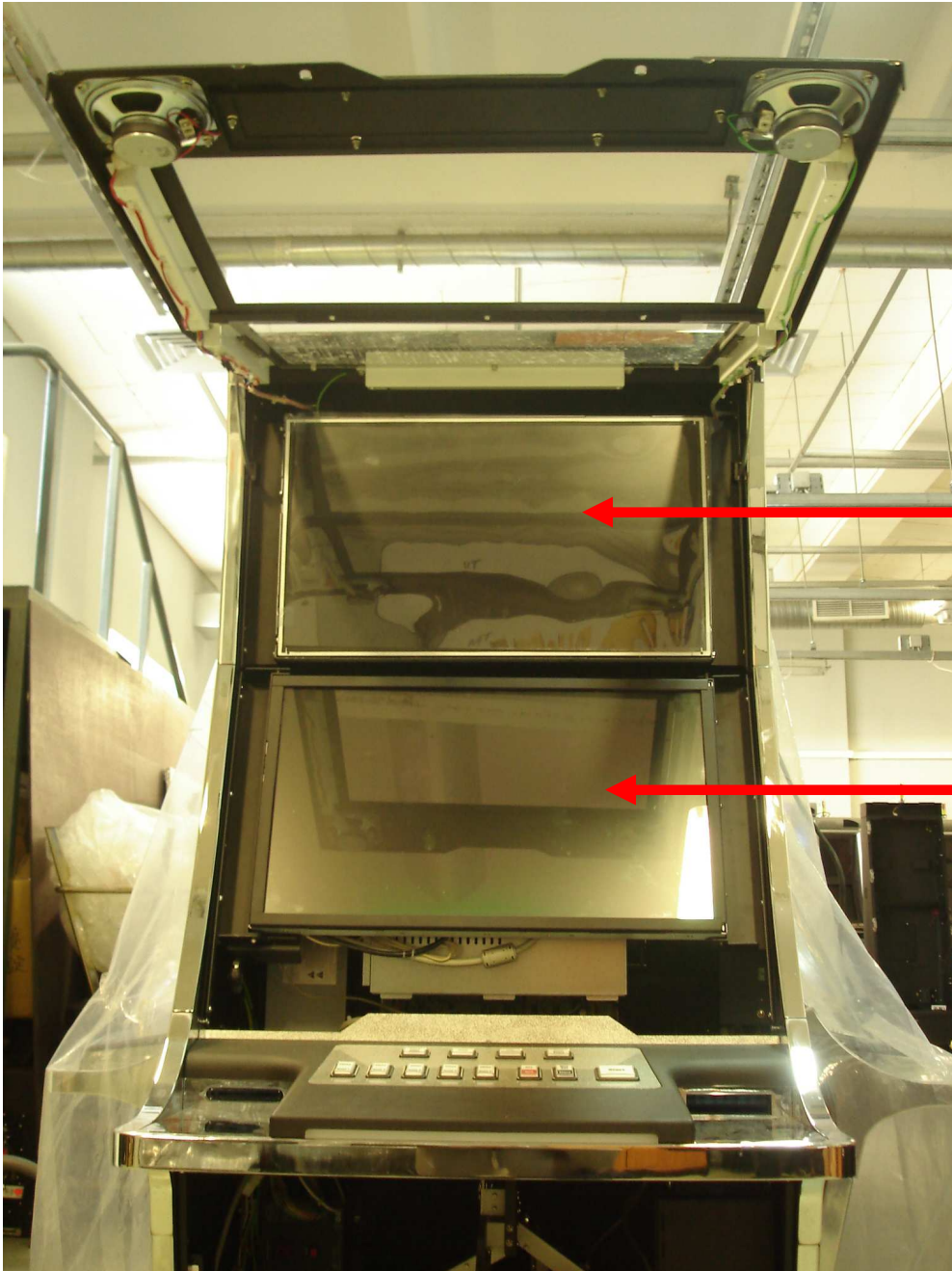


Figure 19: Monitors Position in Machine

WARNING:

Once the monitor door is vertically opened, it is necessary to put a protective cover on it, along the perimeter of door, in order to avoid injuries against the corners of metal frame. The absence of protective cover may lead to injuries of maintenance staff.



Figure 20: Protective Cover

10.2 Function

The monitors show the game play, the error messages and the audit system.

10.3 Troubleshooting

Check if the monitors and the connectors of the cables are fixed correctly in their mounting.

10.4 Exchange of the monitors

If any defects cannot be repaired, the defective monitor has to be exchanged.



Figure 21: Monitors Exchange

11 Harness

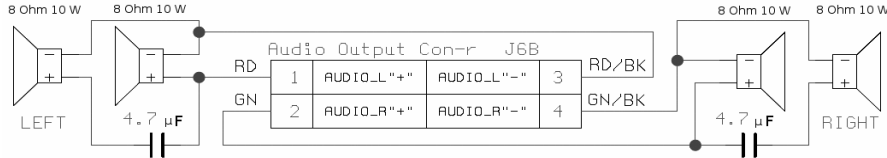


Figure 22: Audio Connector

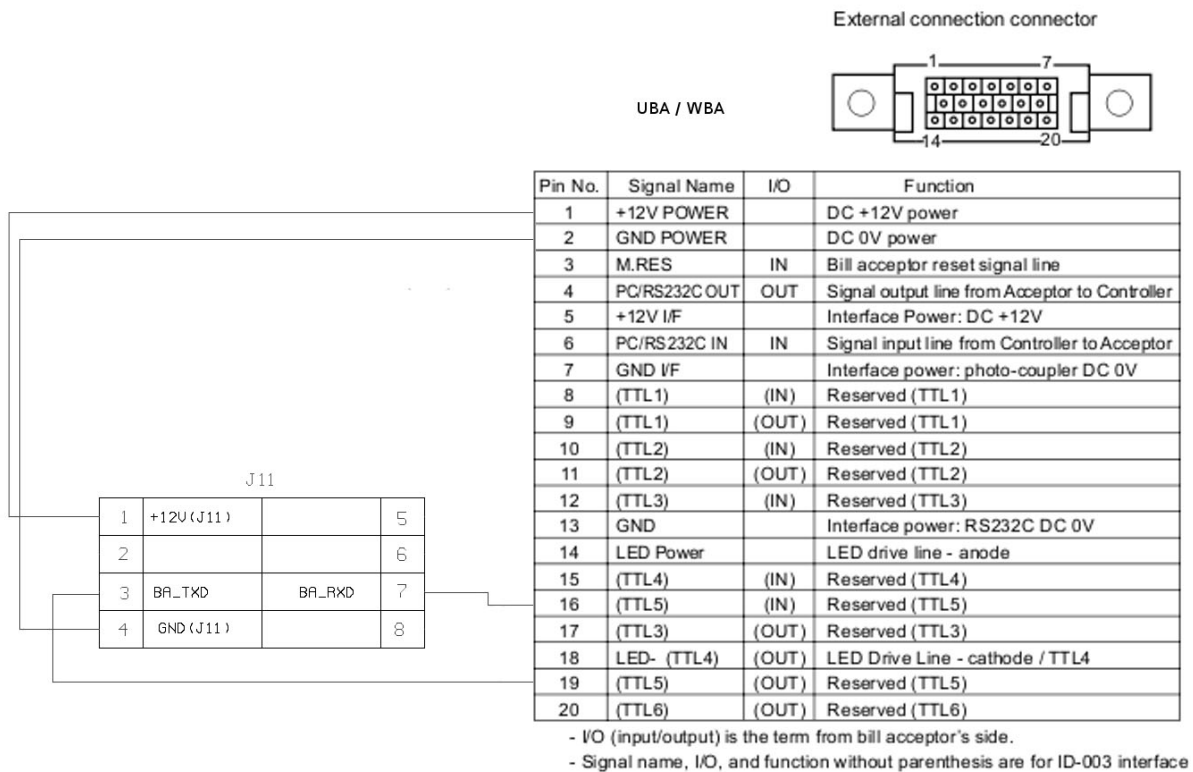


Figure 23: JCM UBA10 Connector

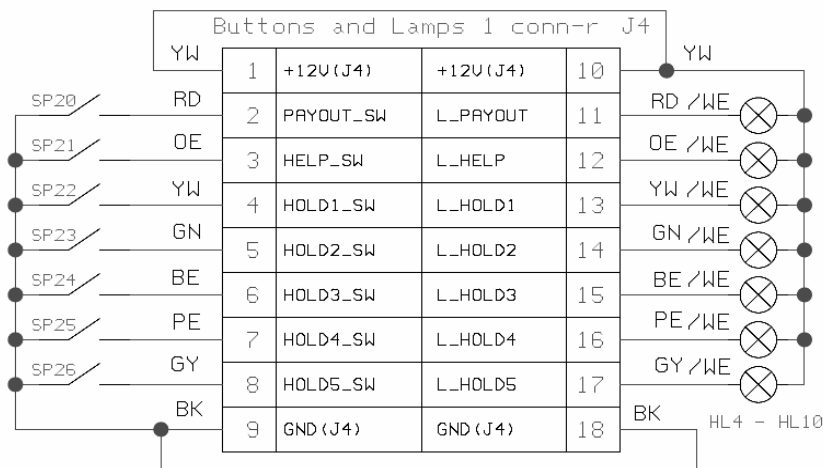


Figure 24: Buttons and Lamps Connector 1

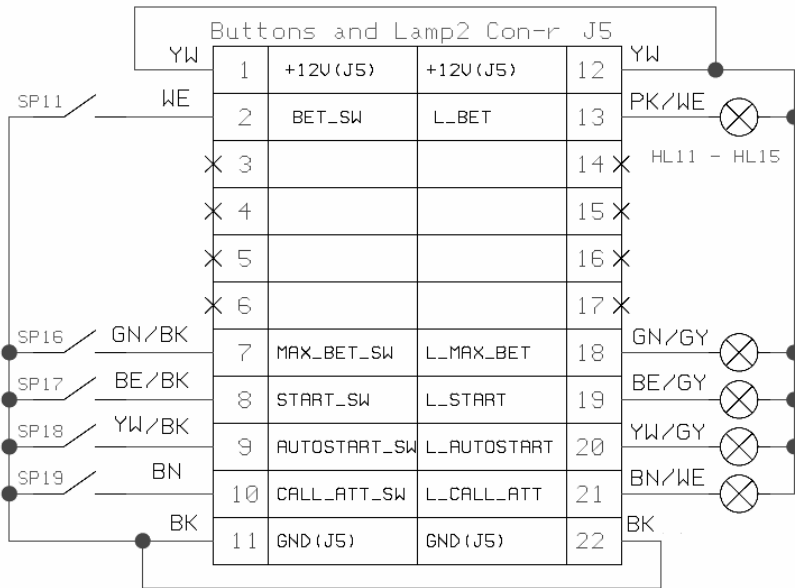


Figure 25: Buttons and Lamps Connector 2

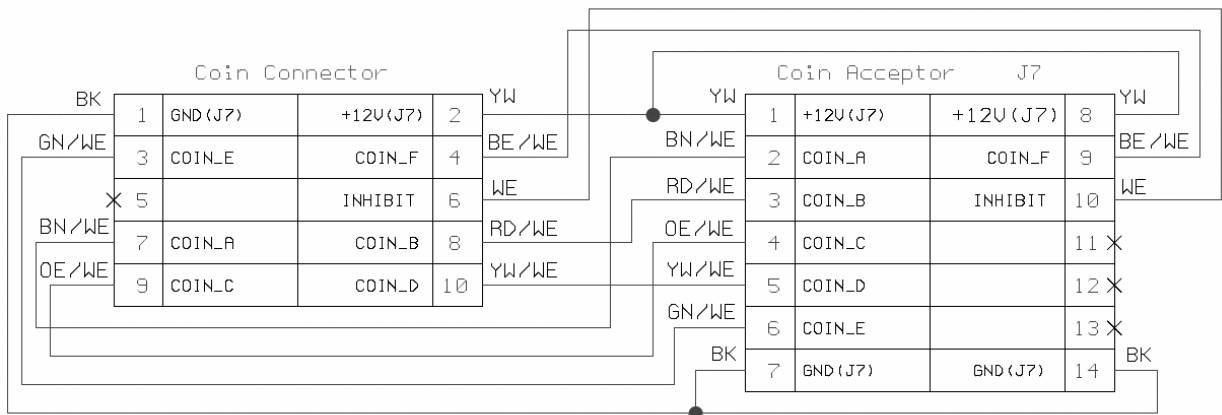


Figure 26: Coin Acceptor Connector

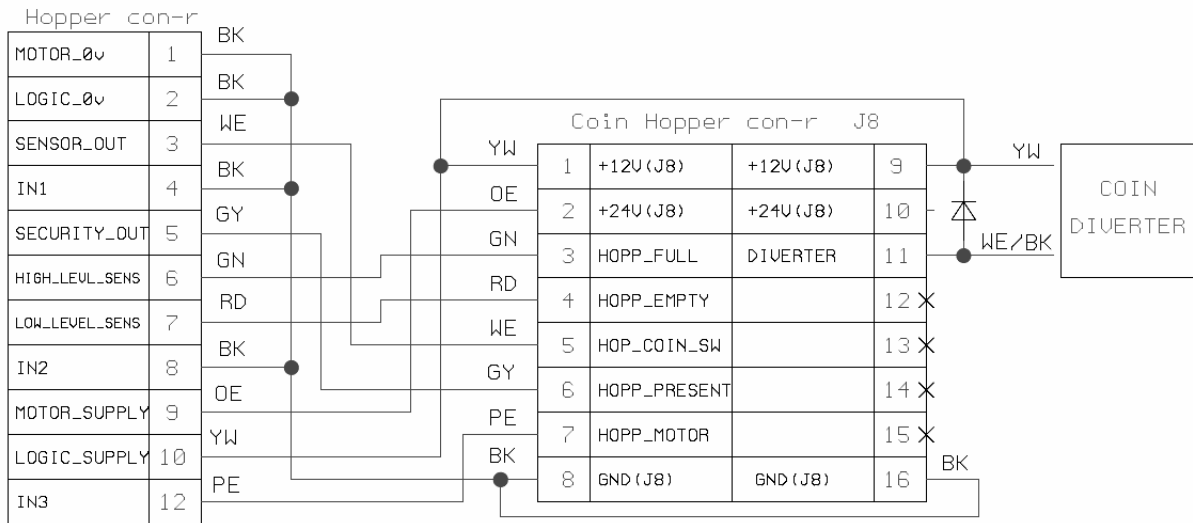


Figure 27: Coin Hopper Connector

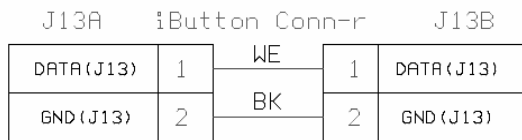


Figure 28: iButton Connector

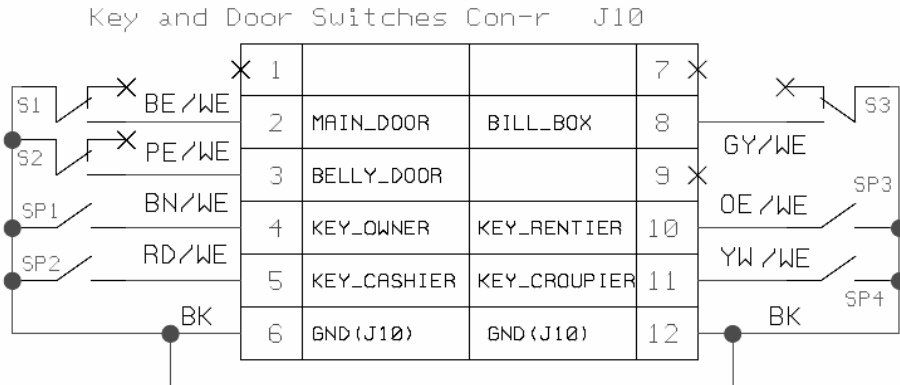


Figure 29: Key and Door Switch Connector

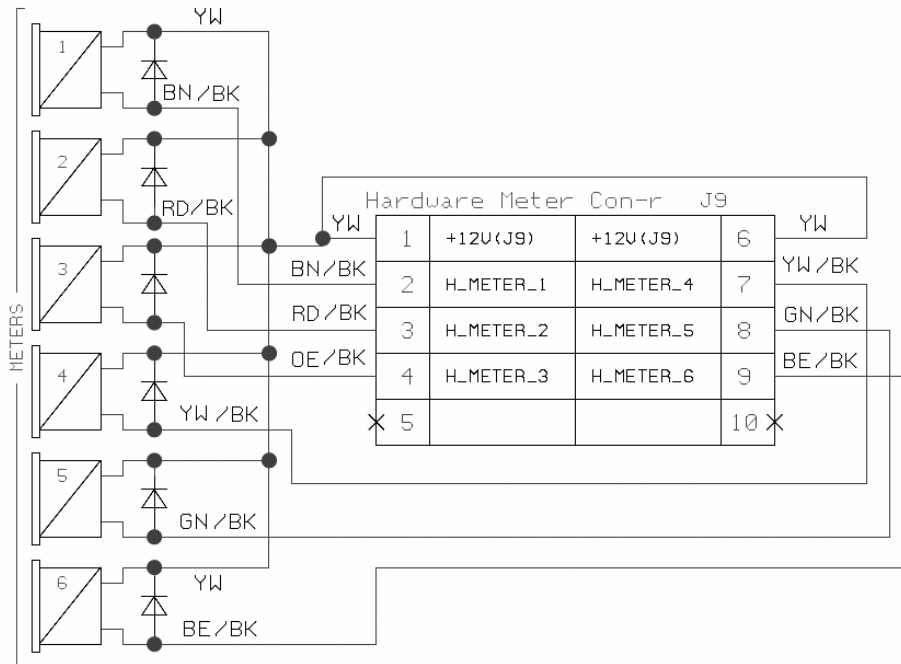


Figure 30: Hardware Meters Connector

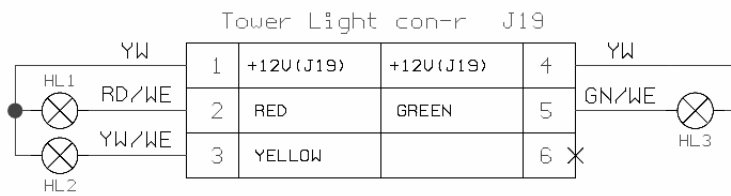
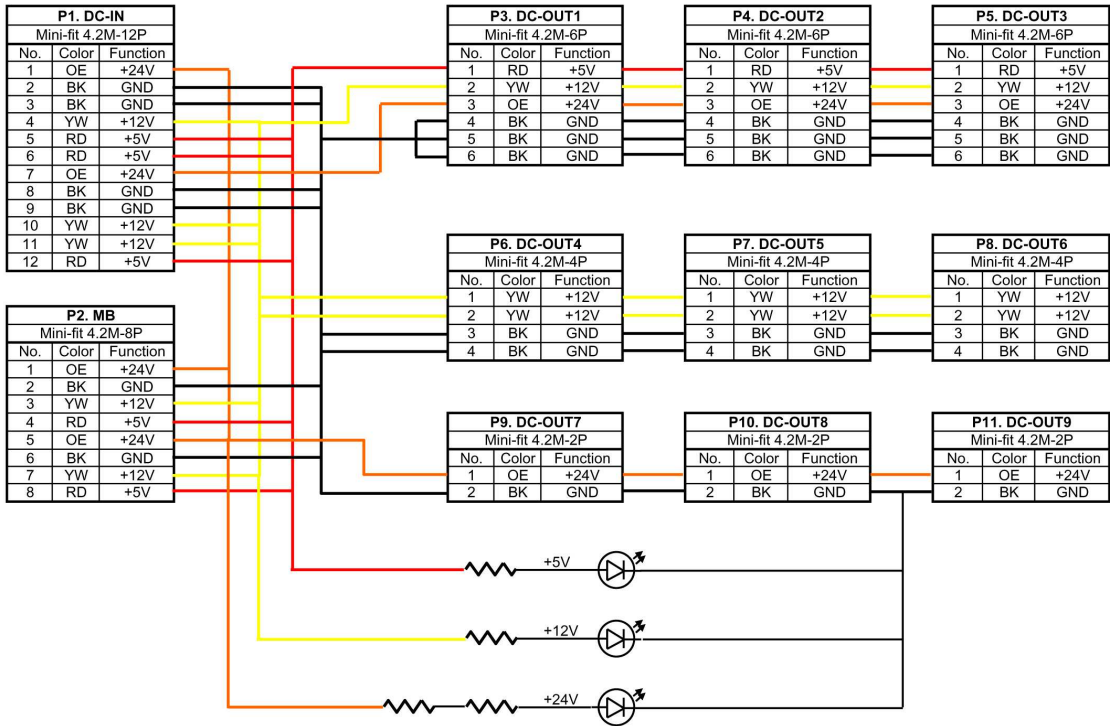
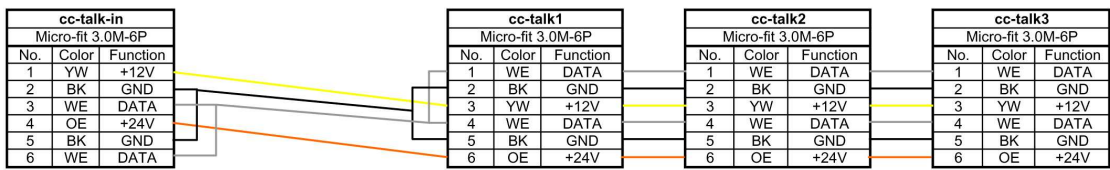


Figure 31: Tower Light Connector

DC Connection:



cc-talk Connection:



AC Connection:

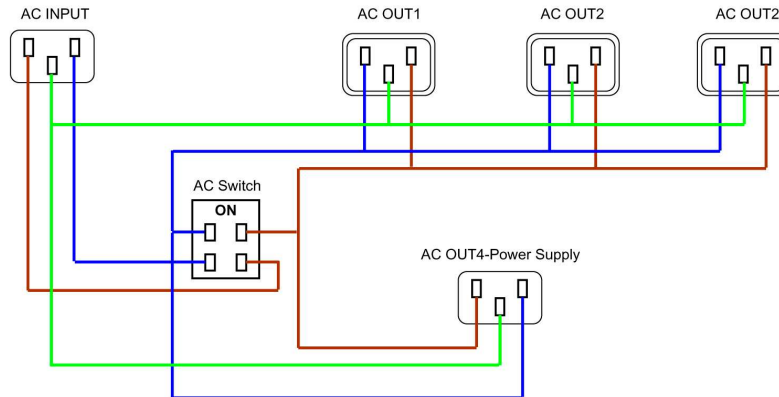


Figure 32: Power Supply Unit Connector