WINCOR NIXDORF

CINEO C1010

Coin Recycling System

User Manual

We would like to know
your opinion on this publication.

Please send us a copy of this page
if you have any constructive criticism on:
- the contents
- the layout
- the product.

We would like to thank you in advance
for your comments.
With kind regards,

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Your opinion

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Introduction

The CINEO C1010 is a coin recycling system used in retail checkout zones and self-service cash systems as well as in banks' front offices reliably accepting and dispensing all coin denominations of a currency. As part of a point of sale terminal coins can be deposited and dispensed either by the cashier or direct by the customer. The automated closed loop system assures error-free and tamper-proof but also quick coin acceptance and payout of coins.

The coin recycler is powered by using a separate power supply with power cable.

The CINEO C1010 is operated and controlled using the customer-side PC software for the control unit connected to the payment system.

CINEO C1010 can be either installed as Stand Alone or as peripheral device.

About this manual

This symbol is used to mark important information in this manual.

Text following this symbol should be given special attention in order to avoid damage and injury.

We would appreciate your feedback. Please send any suggestions for improvement to

retail.documentation@wincor-nixdorf.com

Please also provide your name and telephone number and/or e-mail address so we can reply. Thank you.

ESD (Electrostatic Sensitive Devices)

Assemblies containing electrostatic sensitive devices (ESD) *may* be labeled with this sticker.

When installing an assembly or drive, please follow the guidelines below, which apply to all electro-static sensitive devices (ESD):

- ❑ Make sure you are not carrying a static charge before working with components marked as ESD by first touching a grounded object (such as a radiator from a hot water heating system).
- ❑ All tools and devices you use must be free from static charges.
- ❑ Always unplug the power cord before installing or removing any assemblies.
- ❑ Always handle assemblies by their edges.
- ❑ Never touch the terminal pins of the circuits on an assembly.

Scope of Delivery

Unpack the parts and check that all items listed on the shipping list are present.

Should you find any of the following, contact your representative or point of sale for

Wincor Nixdorf GmbH immediately:

- ❑ Transport damage
- ❑ Discrepancies between the shipped items and the delivery note
- ❑ Functional defects.

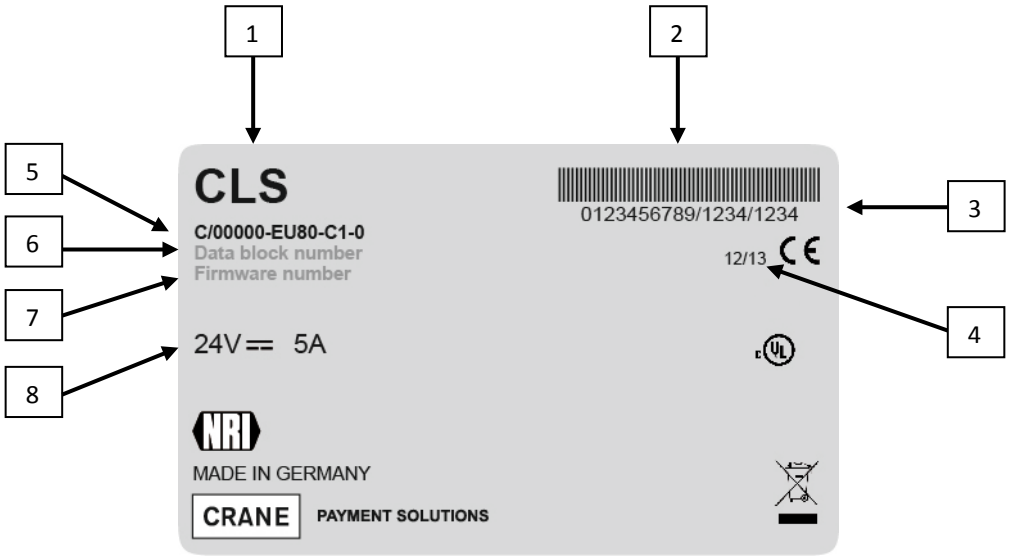
Provide the representative with the delivery note number, the delivery note item number and the serial number for the device. The serial number is located on the label (example shown below) on the rear of the housing.

i Be sure to check the function of the original equipment before carrying out any modifications (such as installing an expansion card). If you do not check the original equipment prior to modification, functional defects cannot be accepted for warranty claims.

i We recommend keeping the original shipping packaging in case the product ever has to be moved, as it is best suited to protect against shocks and im-pacts during transportation.

Product Label

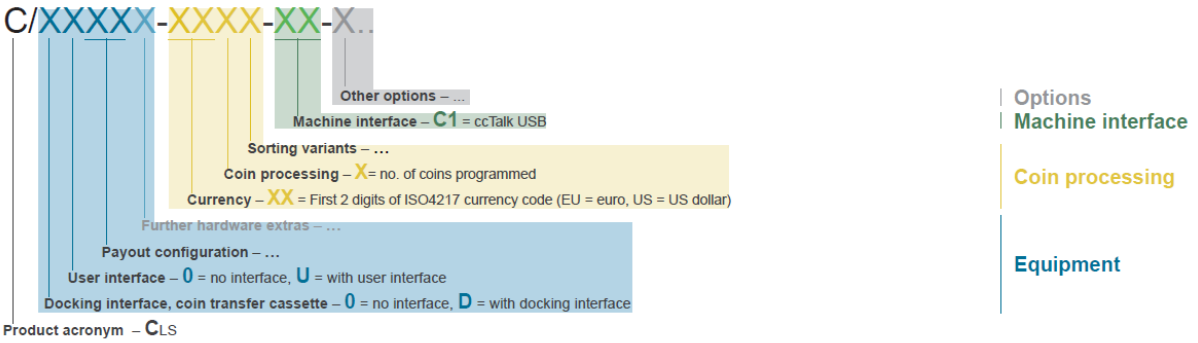
The product label of the coin recycler contains all data defining the device such as model and serial number:



Product Label (Sample)

1	Product name
2	Bar code, serial & model number (specifies product)
3	Customer order number (10-digit), Item no./order (4-digit), device serial number/item (4-digit) (specifies product)
4	Date of manufacture
5	Model number (see next page)
6	Data block number and version
7	Firmware number and version
8	Rated voltage and current consumption

Model Number Decoding



Selecting an Installaton Site

When selecting an installation site the following issues should be taken into account:

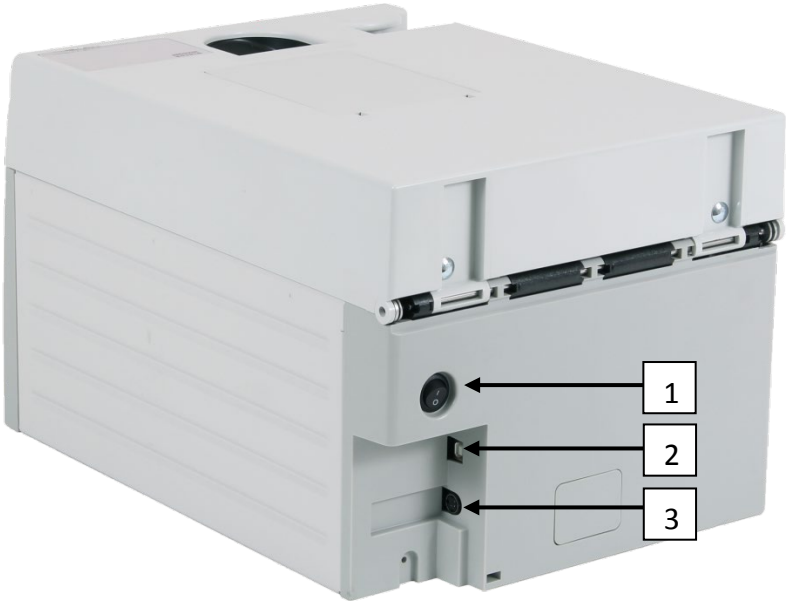
- ❑ Space required for operation and maintenance
- ❑ Opening CINEO C1010 lid
- ❑ Access to on-off switch and interfaces
- ❑ Horizontal installation/mounting position on a plane surface
- ❑ Noise emission, ambient temperature and air humidity

Unpacking the CINEO C1010

- ❑ Unpack the CINEO C1010 and keep the original packaging safe for possible later use.
- ❑ Compare scope of delivery with the delivery note enclosed.
- ❑ Check the CINEO C1010 and optional accessories for damages (in transit) and advise your partner, if necessary.

Putting the CINEO C1010 into Service

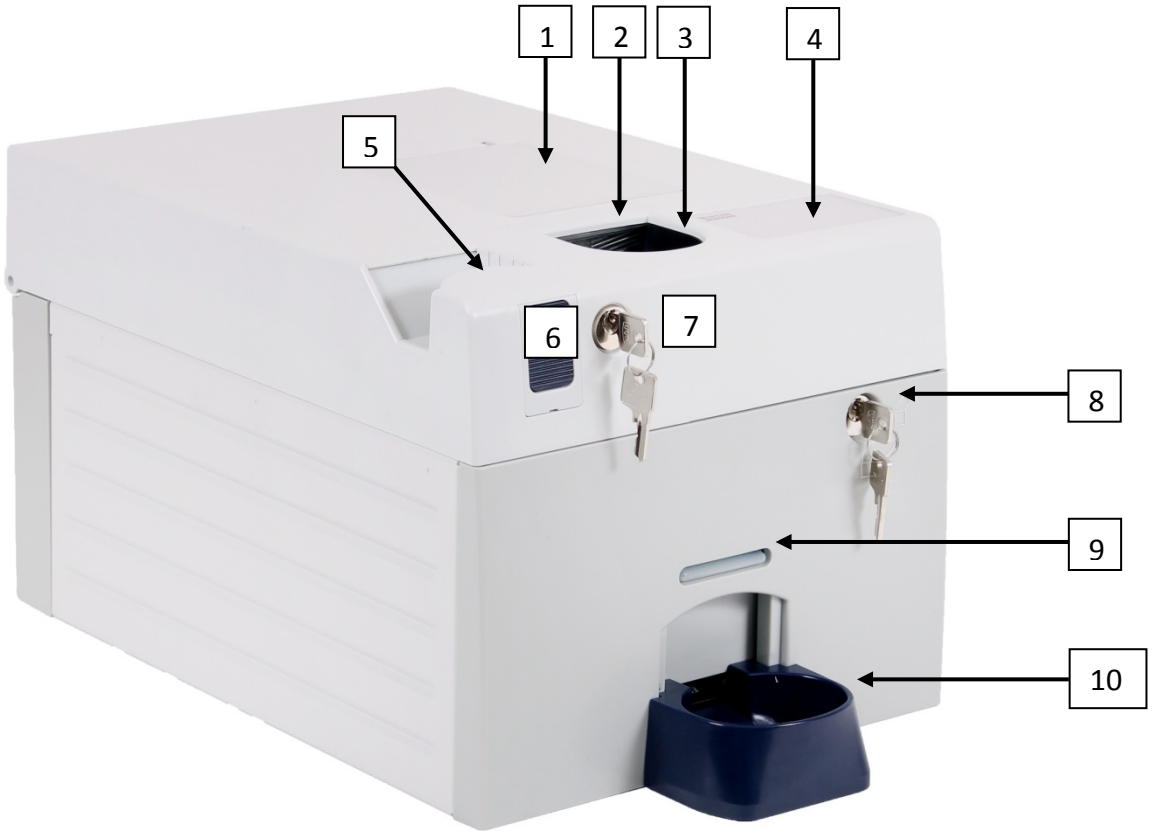
- ❑ If integrated in a complete cash handling system, disconnect the system from the mains supply.
- ❑ Connect the coin recycler to the control unit computer using the USB interface (1 – see picture below) and the USB cable provided.
- ❑ Connect the coin recycler to the mains using the power interface (2 – see picture below) and an appropriate 24V-power supply unit.
- ❑ If necessary, reconnect the mains supply to the cash handling system.
- ❑ Use the on-off switch (3 – see picture below) on the rear side to switch the CINEO C1010 on.
- ❑ Initialize the CINEO C1010 using the control unit computer.
- ❑ Following a self test the top CINEO C1010 illumination is green indicating the CINEO C1010 to be ready to operate.
- ❑ Fill the hoppers either by dropping the coins required into the coin input funnel or docking the coin transfer cassette providing all coins required (cf. Chap. "Filling the coin hoppers ...", p. 22).



1	On-Off switch
2	Interface – PC (USB standard B)
3	Interface - Power

Components

Front View

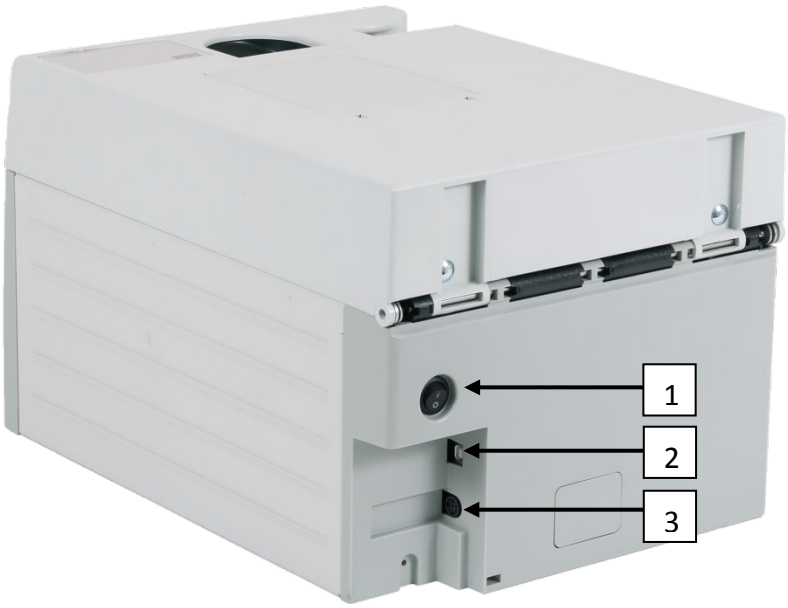


1	Replenishment flap – coin transfer cassette (option)
2	Status illumination – C1010 operating state
3	Coin input funnel
4	User interface (option)
5	Pull handle – open C1010 (lid or payout unit)
6	Push-button – open lid/coin acceptance unit
7	Lock – push-button on CINEO C1010 lid
8	Lock – open payout unit
9	Status illumination – coin return tray
10	Coin return tray

Status Illumination

Lighting/Flashing	How long /often?	Meaning	Remedy, hints
	once	Coin input funnel ready to operate. Self-test OK	No error.
	for 2s	Initialization successfully completed	No error. Wait till illumination is on steadily to insert coins.
	steady ON	Stand-by mode: ready for coin insertion	No error.
	Blinking	Processing coins	No error.
	Blinking	Warning! Solving problem. Do not insert coins	Wait till problem has been solved and illumination is green or blinking yellow.
	Blinking	Attention! Problem solved and recorded. Ready for coin insertion	No error. Insert coins and note problem for next service (error record).
	Blinking	• Error! Optics in coin input funnel covered • Error! Optics in coin input funnel defective	• Remove foreign object from input funnel • Service case
	Blinking	Error! Transaction failed. Out of service	See error list
	Blinking	Coin payout unit is transporting coins to the coin return tray	No error. Take change out of the coin return tray.

Rear View



1	On-Off switch
2	Interface – PC (USB standard B)
3	Interface - Power

Modular Layer Structure

Lid (layer 4) including:

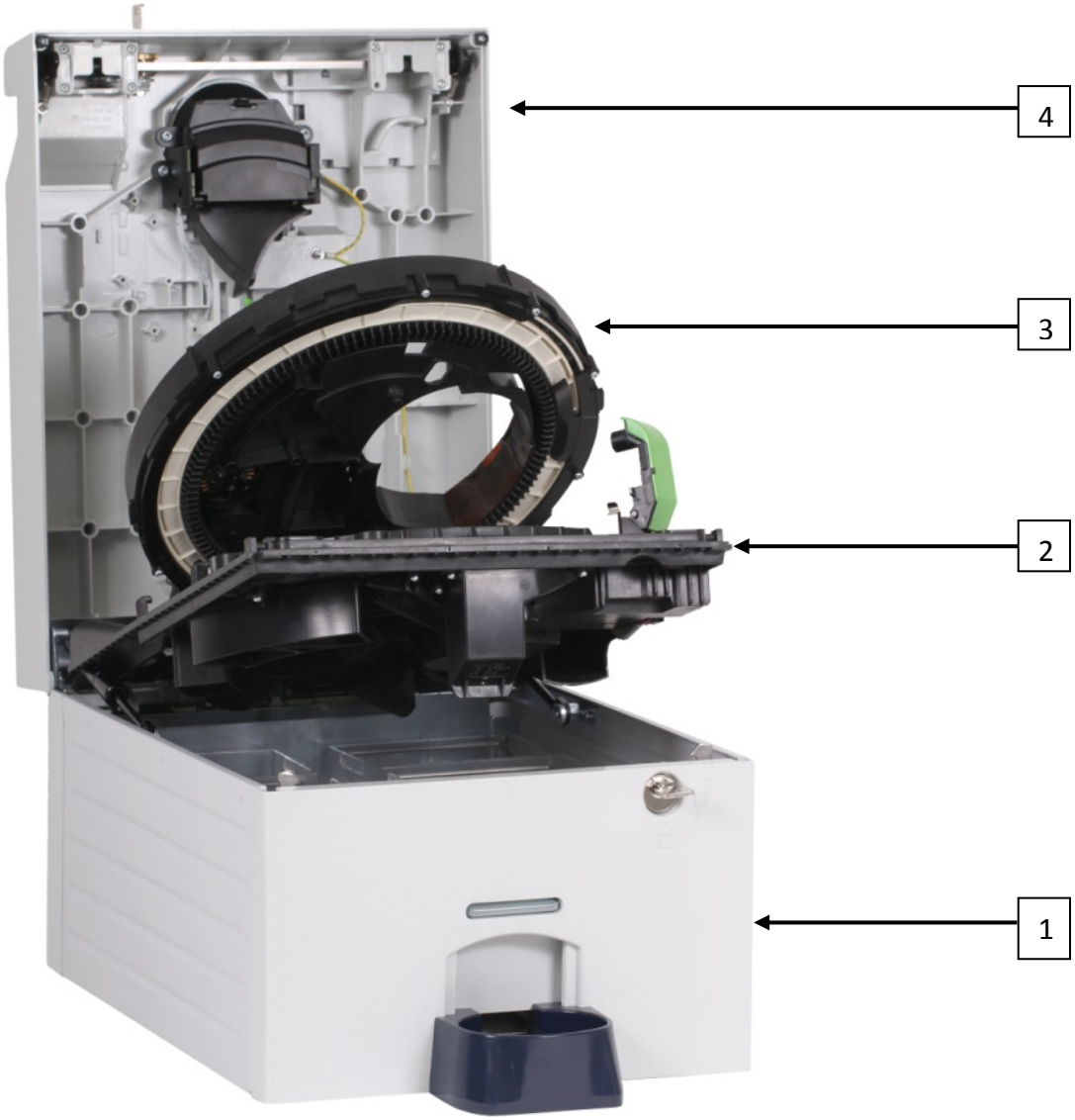
- ❑ Coin input funnel
- ❑ Operating elements as lock, push-button, pull handle, replenishment flap, user interface (option)

2-layer coin acceptance unit (layers 3 & 2, key-locked unit, accessed by authorized personnel only) including:

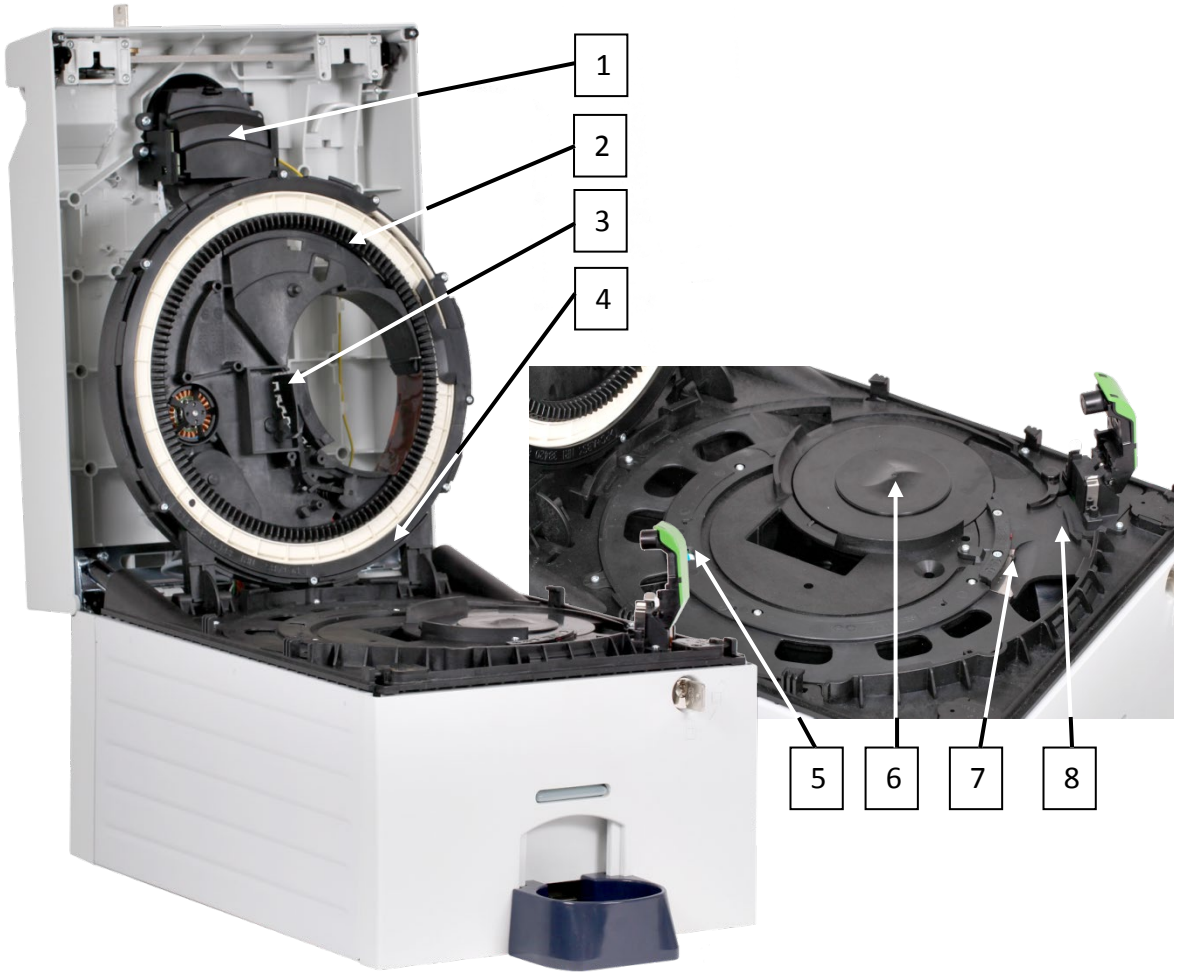
- ❑ Centrifuge
- ❑ Coin conveyor belt
- ❑ Coin validator
- ❑ Coin sorting spiral & chutes

Coin payout unit (layer 1, key-locked unit, accessed by authorized personnel only) including:

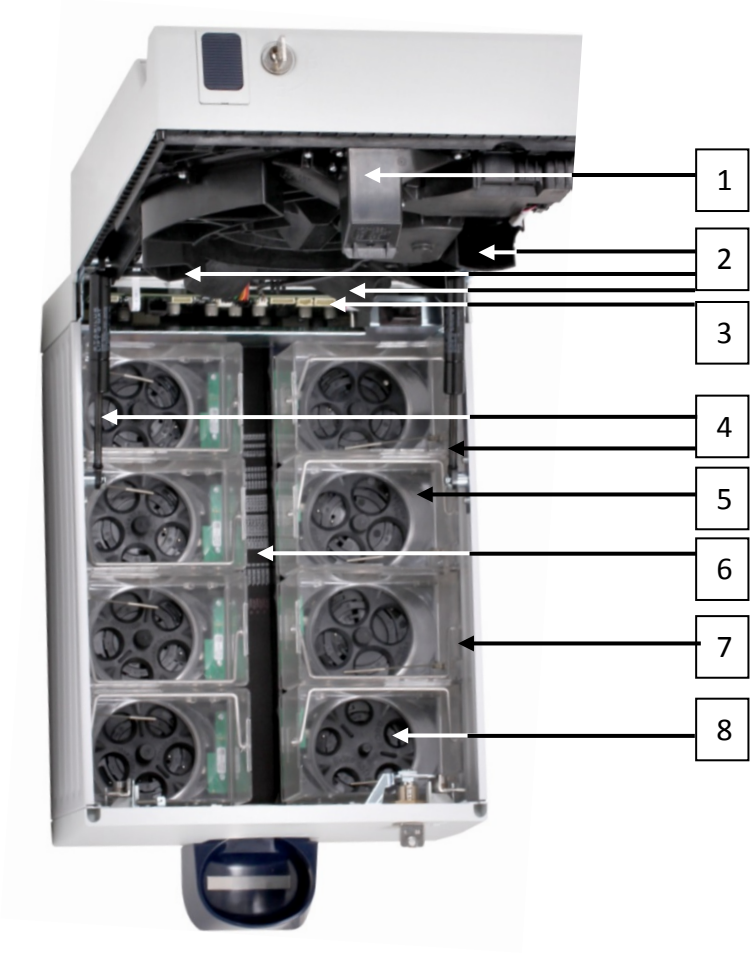
- ❑ Coin hoppers
- ❑ Coin return belt
- ❑ Coin return tray
- ❑ Lock



1	Payout unit (Layer 1)
2	Lower acceptance unit (Layer 2)
3	Upper acceptance unit (Layer 3)
4	Lid (Layer 4)



1	Dust Tray
2	Coin conveyor belt
3	Trash flap
4	Trip lever for lid open switch
5	Coin validator arm
6	Centrifuge
7	Coin rejector pin
8	Coin validator



1	Coin return chute
2	Coin sorting chutes
3	Main PCB
4	Gas springs
5	Coin hoppers
6	Coin return belt
7	Bail handle, hopper
8	Payout disc, hopper

Coin Cycle

Coin Input Funnel

If the top illumination is green, one or more coins can be dropped into the coin input funnel. Sensors in the funnel detect the coins and start the CINEO C1010 centrifuge in the coin acceptance unit. The top illumination is now flashing green.

Do not drop more than 50 coins at once in order that all coins can be accepted properly and do not have to be rejected.

To assure that no foreign objects reach the coin path the coin input funnel has holes allowing foreign particles to fall in the dust tray. Other larger objects are separated from the coins in the acceptance unit and directed to the coin return tray.

Centrifuge and Coin Conveyor Belt

The centrifugal force arranges the dropped coins one after another on the turning conveyor belt so that their properties can be checked.

Coin Validator

In the coin validator the coins pass sensors checking the coins. There they generate individual measurement values. Due to the special design and arrangement of these sensors, each coin is checked for its material properties and dimensions.

A so-called acceptance band, which consists of an upper limit value and a lower limit value, is stored for each coin denomination programmed to ensure that the CINEO C1010 knows whether to accept a coin or not. If the measured values of a coin are within the acceptance band, the coin is accepted for sale, but if the measured values exceed the acceptance band, the coin will be rejected.

Coin Sorting Spiral

Depending on their diameters the coin sorting spiral's apertures route all coins accepted into the appropriate coin hoppers.

Coin Payout Unit

The coin hoppers in the payout unit collect one coin denomination each.
For each denomination programmed in the CINEO C1010 there is one hopper available.
In case of a euro programming, for instance, the payout unit is equipped with eight coin hoppers.

Currencies with fewer coin denominations are paid out using double or triple hoppers to ensure highest possible payout capacity. In order that coins are paid out correctly and according to the CINEO C1010 coin configuration, each hopper has a fixed position. Coin hoppers and hopper positions are colour-coded to ensure the hopper positions do not get mixed up.

Driven by a motor the payout disc of a hopper turns as long as the correct number of a coin is released. For highest possible payout speed four coin hoppers can be controlled simultaneously. All coins released fall onto the return belt transporting the coins to the return tray, the lower illumination is green. The coin return tray can be lifted up using the customer-dependent software or the optional user interface to install a coin transfer cassette or other filling mechanisms for coin bags.

If the hopper sensors detect coin jamming or coin pile-ups, the payout disc starts turning the other way round allowing the coins stuck to distribute themselves evenly inside the hopper bowl.

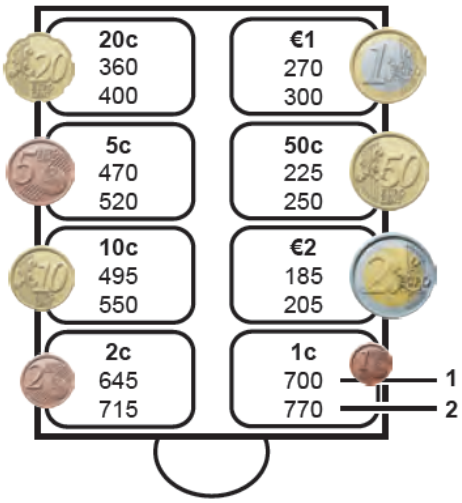
i If the coin counter of a hopper has reached its full level, the CINEO C1010 issues a service message claiming an emptying cycle for this hopper. If the maximum level is reached, the CINEO C1010 stops operating (see below "Payout configuration & capacity", p. 13).

i If too many coins have to be paid out and directed to the coin return tray and the tray is full of coins, coin processing pauses until the tray has been emptied and then continues automatically.

Payout Configuration & Capacity

The payout configuration and capacity depends on the currency and coin denominations programmed in the system.

Euro Configuration & Capacity



1	No. of coins triggering full message/"please empty"
2	Max. no. of coins stops CINEO C1010 operation

Coin Rejector Pin

Coins with measured values beyond the programmed acceptance band are extracted by means of the coin rejector pin coming up and deflecting these coins to the return belt transporting them to the coin return tray.

i If too many coins have to be rejected and directed to the coin return tray and the tray is full of coins, coin processing pauses until the tray has been emptied and then continues automatically.

Acceptance, Sorting & Payout Control

To ensure that accepted coins actually arrive in the coin hoppers and that acceptance has not been tampered with, sensors check whether the inserted coins pass unhindered through the CINEO C1010 and into the coin hoppers or coin return tray (cf. Chap. "Coin path & Sensor monitoring", p. 15). Only when the coins have passed these checking devices, either coin acceptance and payout or, in case of tampering or malfunction, an error code is transmitted to the control unit.

Replenishment Flap & Coin Transfer Cassette (Option)

The optional coin transfer cassette is used to safely transport the cash to and from the CINEO C1010. Once docked into the docking interface on the top of the CINEO C1010, covered by the replenishment flap the coins fall out of the cassette into the CINEO C1010 starting the centrifuge, pass the coin validator and are sorted into the hoppers. The control software has to switch the CINEO C1010 to filling mode and start the filling cycle.

i Refilling the coin hoppers in this way not only ensures that all coins are registered and counted by the system but also protects cash from being stolen.

User Interface (Option)

The optional user interface comprises a number of functional keys and a display to navigate within the internal menu for

- ❑ configuration & updates
- ❑ diagnostics
- ❑ service
- ❑ troubleshooting

Top Keylock, Push Button & Handle

To keep your cash under lock and key the CINEO C1010 lid is closed in normal operation. In case of jamming the authorized attendant possessing the key may open the CINEO C1010 lid by unlocking the top key lock, holding the push-button down and open the lid with the pull handle.

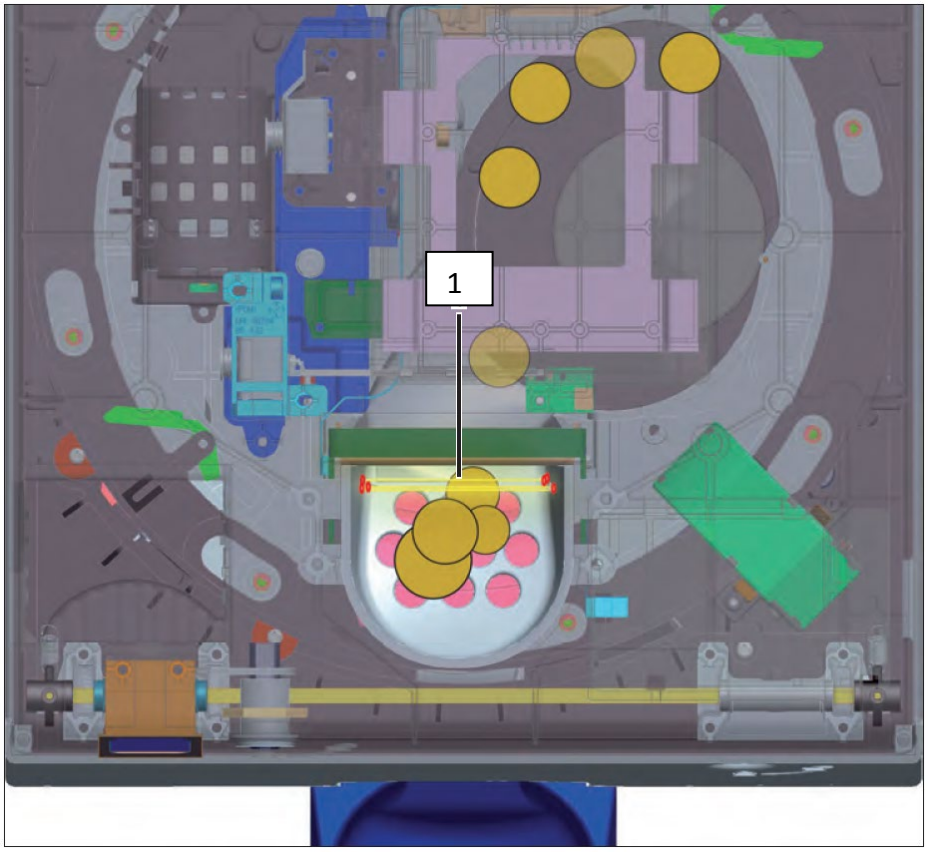
Bottom Key Lock & Pull Handle

In case of maintenance the payout unit may be opened by unlocking the bottom key lock and open the CINEO C1010 with the pull handle.

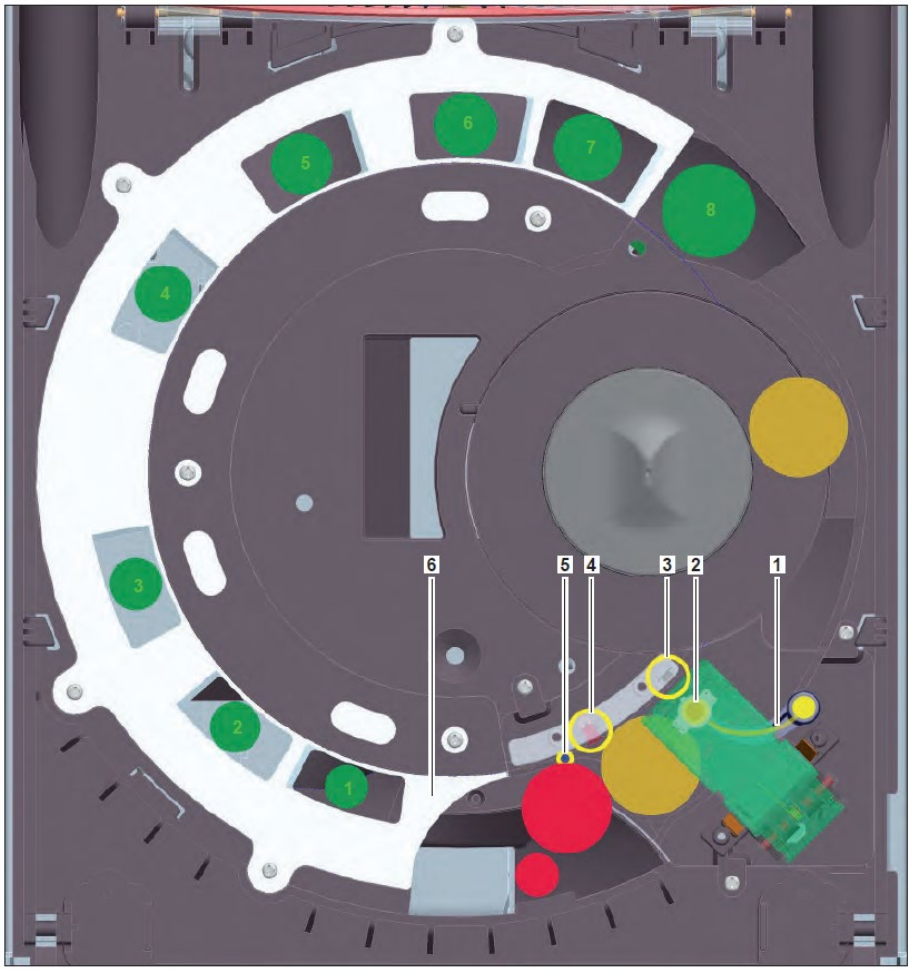
Do not unlock the lid or press the push-button to open the lid when the payout unit is open. This unlatches the coin acceptance unit and may damage the device or result in injuries.

Coin Path & Sensor Monitoring

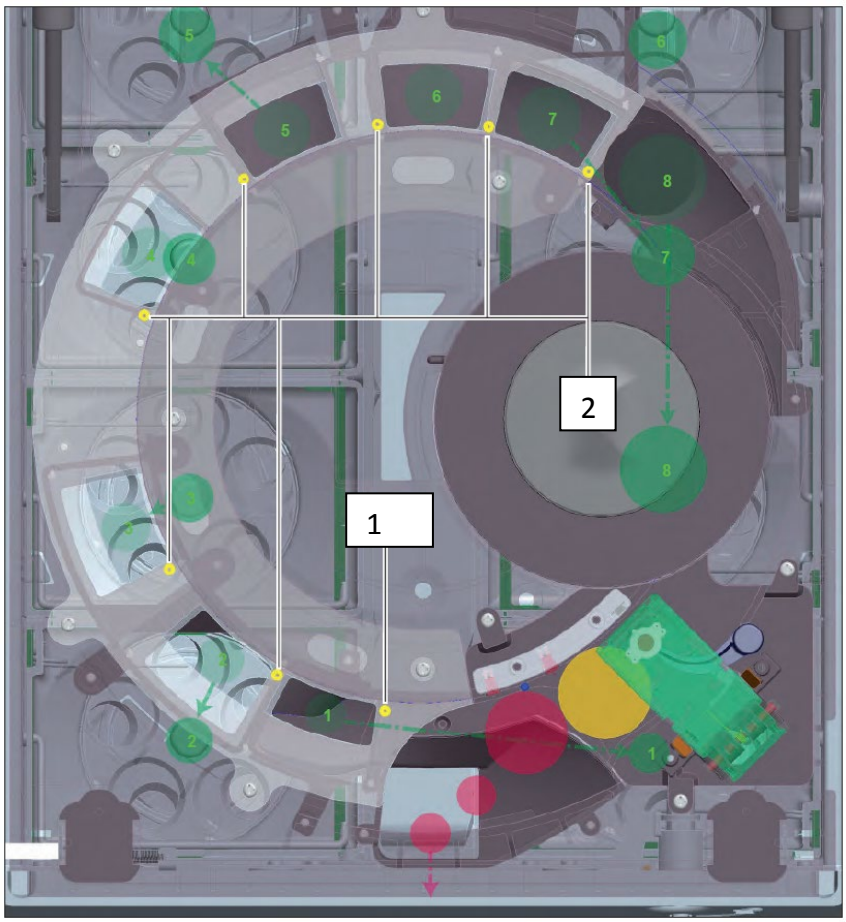
The following figures show the coin path through the CINEO C1010.



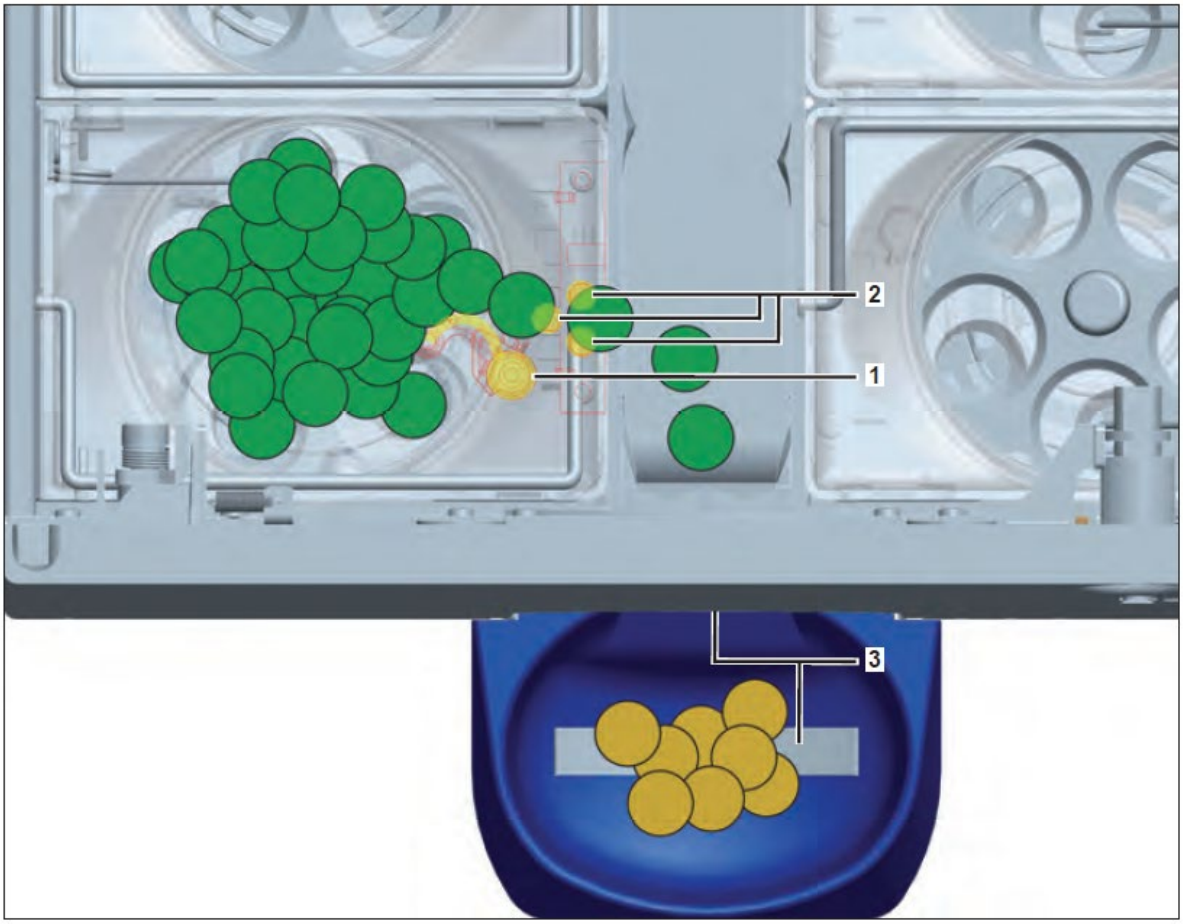
1	3-height photoelectric sensors starting CINEO C1010 when detecting coins in the input funnel



1	Lever	Measures coin diameter
2	Coil	Measures coin material properties
3	Optical sensor	Measures coin rim
4	Photoelectric sensor	Detects coin position
5	Coin rejector pin	coming up to extract (red) coins with measured values beyond the programmed acceptance band and deflecting these coins to the return belt & tray
6	Coin sorting spiral	directs accepted (green) coins into the sorting chutes according to their diameters



1	Accepted coin sensor & sorting control sensor for first gap (capacitive sensor): detects position of accepted (green) coins with valid measured values and increases coin validator counter for this coin
2	Sorting control (capacitive sensor) in front of each coin gap: detects accepted (green) coin and increases appropriate hopper counter when sorting control sensor of next gap does not detect any coin



1	Coin ejector lever: stressed by the coins ejects coins to be dispensed out of the hopper
2	Payout control (three photoelectric sensors): detect coins to be paid out when falling on the return belt and decrease coin counter per hopper
3	Full sensor: stops coin payout when coins bridge the bottom and top contacts, payout continues automatically when the coin return tray is emptied

Operation

Switching the CINEO C1010 On/Off

i Before switching off the device, wait until a transaction has been finished. Disconnecting the CINEO C1010 from supply (intended or unintended) may result in an immediate abortion of a currently running transaction remaining coins in the processing paths wrong coin counters.

❑ The CINEO C1010 is switched on and off with the power switch on the rear of the device (1). If already connected to power and initialized by the control unit computer, the upper illumination is green and the CINEO C1010 is ready to operate. ❑ Press the on-off switch at the bottom to switch the CINEO C1010 off.	

Opening and closing the CINEO C1010 LID

Though the CINEO C1010 stops running when the lid is opened, you should always wait until a transaction has been finished before you open the lid to not affect the coin counters.

- ❑ Switch the CINEO C1010 off.

Opening the lid:

❑ Insert the key in the lock and turn it counter-clockwise as far as it will go and hold it (1) ❑ The lid covers the coin acceptance unit and can be opened and closed using a key for the upper lock: ❑ Simultaneously hold down the push-button (2) and open the lid by its handle (3) as far as it will go. ❑ Opening the lid is supported by the gas springs.	

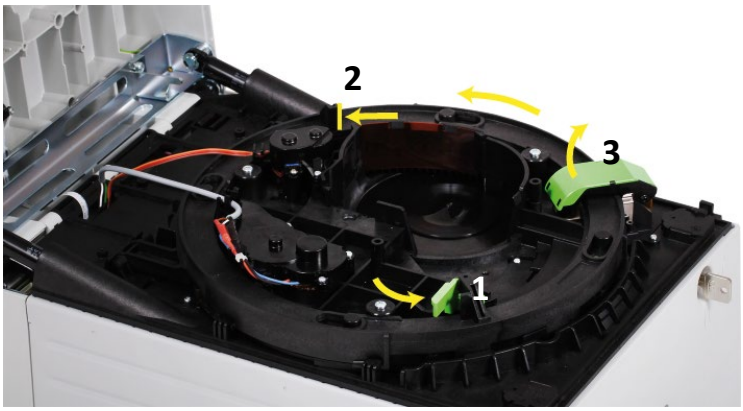
Closing the lid again:

- ❑ Close the lid so that it locks properly into place.
- ❑ Pull the key out of the lock.
- ❑ Switch the CINEO C1010 on again at the rear side.

Opening/Closing the Upper Coin Acceptance Unit

The coin acceptance unit consists of an upper and a lower layer. The upper layer can be opened using a bayonet mount to eliminate a jam for instance:

- ❑ Open the lid (page 20).
- ❑ Press the lever (1) of the bayonet mount.
- ❑ Keep the lever pressed and turn bayonet mount (2) counter-clockwise as far as it will go.
- ❑ Carefully lift the arm (3) of the coin validator.
- ❑ Open upper acceptance unit as far as it will go.
- ❑ Close in reverse order.



Opening and Closing the Coin Payout Unit

The coin payout unit can be opened and closed using a key for the lower lock (1 – see picture below) to eliminate coin jamming, for instance, or to service the CINEO C1010.

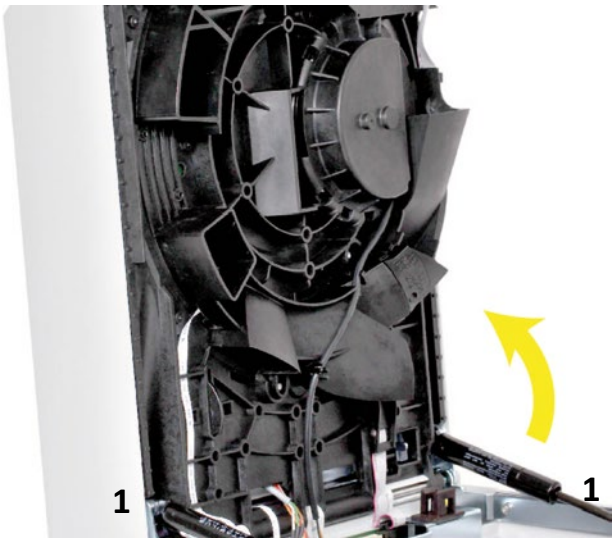
Hand over the key to open the payout unit only to personnel allowed to access the cash.
Though the CINEO C1010 stops running when the payout unit is opened, you should always wait until a transaction has been finished before you open the payout unit to not affect the coin counters.

If necessary, wait until a transaction has been finished and switch the CINEO C1010 off

- ❑ Insert the key in the lower lock (1) and turn it counter-clockwise as far as it will go.
- ❑ Open the payout unit by the handle (2) as far as it will go.

Do not unlock the lid and press the push-button to open the lid when the payout unit is open. This unlatches the coin acceptance unit and may damage the device or result in injuries.

To open the payout unit

❑ Opening the unit is supported by the gas springs (1).	

To close the payout unit

- ❑ Close the CINEO C1010.
- ❑ Turn the key clockwise as far as it will go and pull it out of the lock.
- ❑ Switch the CINEO C1010 on (see page 19).

Filling the Hoppers ...

In order that the coin hoppers can be filled and all coins will be registered/counted in filling mode you need the product-dependent software installed on the control unit computer connected.

For the full and maximum numbers of coins please refer to Chap. "Payout configuration & capacity", p. 13.

... via Coin Input Funnel

- ❑ Start filling mode and filling cycle in the product-dependent software on the control unit computer.
- ❑ Drop programmed coins to be filled into the coin input funnel (1).

- ❑ Return CINEO C1010 to normal operating mode.

i If a coin is deposited the hopper of which is full, this coin is rejected and directed to the coin return tray.

... manually

- ❑ Open payout unit (see page 21).
- ❑ Refill hoppers with coins of the denomination indicated on the hopper front.

i Make sure that coins fall into the correct hopper.

Exercise care when filling the hoppers. To guarantee proper operation of the CINEO C1010 the coins must not fall into the device.

- ❑ Close payout unit again (see page 21).
- ❑ Increase the coin counters for each hopper.

Emptying the Coin Hoppers...

In order that the coin hoppers can be emptied you need the product-dependent software installed on the control unit computer connected, in order that all coin counters will be decreased.

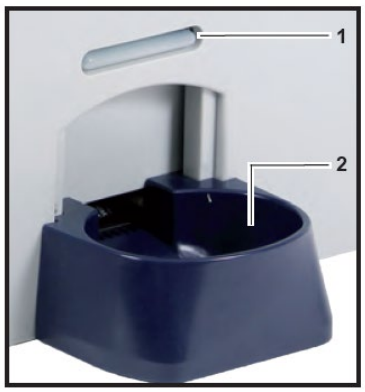
... via Coin Return Tray

- ❑ Start emptying mode and emptying cycle in the product-dependent software on the control unit computer.
- ❑ The status illumination (1) is green and all coins are dispensed from the hoppers.
- ❑ Remove dispensed coins from the coin return tray (2).
- ❑ Return CINEO C1010 to normal operating mode.

i Make sure that coins fall into the correct hopper.

Exercise care when filling the hoppers. To guarantee proper operation of the CINEO C1010 the coins must not fall into the device.

i Coin processing pauses if the return tray is full of coins, and automatically continues as soon as the tray has been emptied.



... manually

i Due to the locks on the front of the CINEO C1010, both front coin hoppers can only be removed after having removed the neighbour hoppers.

- ❑ Open payout unit (cf. Chap. "Opening and closing the coin payout unit", p. 21).

❑ Use the bail handle (1) to carefully pull out the hopper to be emptied.

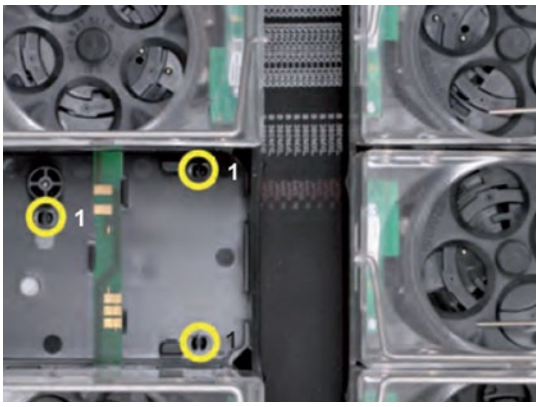
i Exercise care when filling the hoppers. To guarantee proper operation of the CINEO C1010 the coins must not fall into the device.

❑ Empty hopper.

❑ Repeat the steps before for all hoppers to be emptied.

❑ Mind the colour code on the hopper and above the hopper position (red hopper fits in red position).

❑ Reinsert the hopper into its dedicated position with its label pointing to the inside of the payout unit and press on both front hopper corners (pointing to the return belt) until the hopper engages in its three latching points (1).



i After reinsertion put the bail handle to the side until it reaches its position at the side of the hopper bowl.

❑ Close payout unit again (cf. Chap. "Opening and closing the coin payout unit", p 21).

❑ Reset the hoppers' coin counters in control software.

i Let the hopper engage correctly to ensure proper contact to the PCB and proper operation.

Emptying The Dust Tray

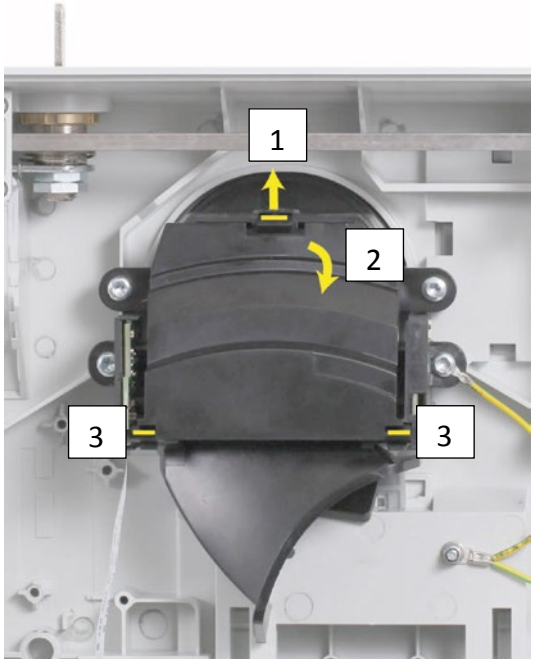
❑ Open the CINEO C1010 lid (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).

❑ Lift the clip and carefully fold down and unhinge the tray.

i Make sure that dust or foreign objects do not fall into the CINEO C1010 when emptying and cleaning the dust tray. In case of doubt just use a cloth to cover the coin acceptance unit.

❑ Empty the tray and wipe it out, if necessary.

❑ Hinge the tray again by its studs.



❑ Close the tray and snap it into the clip.

❑ Close the lid again (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).

Cleaning the CINEO C1010

Safety Instructions for Cleaning Work

- ❑ Pull out the machine's mains plug when cleaning or removing units or components.
- ❑ Moisten cloths only slightly to prevent fluid from entering the device. This would damage the PCBs and optics.
- ❑ Only use the recommended cleaning agents/tools and do not use solvents or scouring agents that could affect the plastic and optics of the device.
- ❑ Do not reconnect the equipment if the connecting cables show any damages or material fatigue (e.g. porous cables).

General Information

i The dust tray and return tray may be emptied and wiped out by the operator, as well as the housing. For this use compressed air or a slightly moistened cleaning tissues.

i The following actions can only be taken if the authorized personnel possesses the keys for both locks.

Cleaning the Coin Path

Cleaning interval	As required, at least twice a year
Cleaning agent/tool	Hoover/vacuum cleaner, compressed air/high-pressure spray, soft brush, slightly moistened cleaning tissues, cloth to cover bottom units

i The following actions can only be taken if the authorized personnel possesses the keys for both locks.

Always use the hoover/vacuum cleaner first and then compressed air to remove all loose particles in order that these will not fall into the bottom units and be smudged onto the surface or into small cracks.

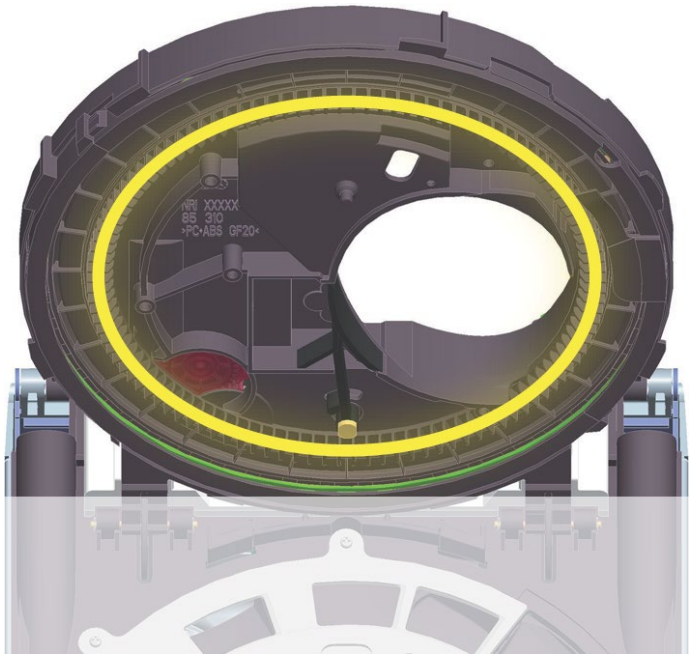
- ❑ Switch the CINEO C1010 off.
- ❑ Open the lid (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).
- ❑ Remove dust and coin residues from the coin runway using the hoover/vacuum cleaner.
- ❑ Remove remaining dust and coin residues using compressed air and a brush, if necessary.
- ❑ Open the upper acceptance unit (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21).
- ❑ Remove dust and coin residues from the coin runway using the hoover/vacuum cleaner.

- ❑ Remove remaining dust and coin residues using compressed air and a brush, if necessary.
- ❑ Close the upper acceptance unit and the lid again (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21) (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).
- ❑ Open the payout unit (cf. Chap. "Opening and closing the coin payout unit", p. 21).
- ❑ If necessary, empty the coin hoppers (cf. Chap. "Emptying the coin hoppers...", p. 24).
- ❑ Remove dust and coin residues from the coin chutes, hoppers and return belt using the hoover/vacuum cleaner.
- ❑ Remove remaining dust and coin residues using compressed air and a brush, if necessary.
- ❑ Close payout unit again (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21).
- ❑ If necessary, repeat the steps to clean the coin runway with slightly moistened cleaning tissues.
- ❑ Switch the CINEO C1010 on again.

Cleaning the Coin Conveyor Belt

Cleaning interval	As required, at least twice a year
Cleaning agent/tool	Compressed air/high-pressure spray, hard brush, cloth to cover bottom units

- ❑ Switch the CINEO C1010 off.
- ❑ Open the lid (cf. Chap. ”Opening and closing the CINEO C1010 lid", p. 20).
- ❑ Open the upper acceptance unit (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21).



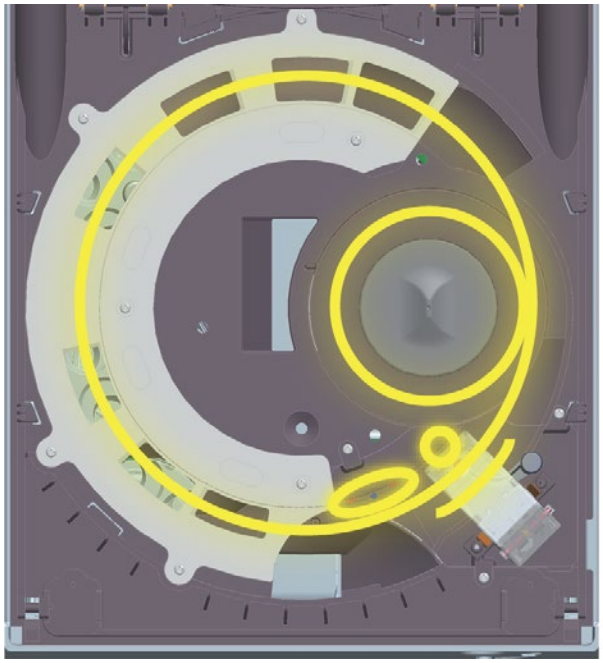
Coin conveyor belt to be cleaned with the lower acceptance unit covered

- ❑ Use a cloth to cover the lower acceptance unit (centrifuge, coin validator, sorting spiral etc.).
- ❑ Clean the belt using compressed air and a brush from the outside to the inside (to prevent the ball bearing from being soiled).
- ❑ Carefully remove the cloth and close the upper acceptance unit again.
- ❑ Close and switch the CINEO C1010 on again.

Cleaning the Centrifuge

Cleaning interval	As required, at least twice a year
Cleaning agent/tool	Compressed air/high-pressure spray, soft brush, cleaning tissues

- ❑ Switch the CINEO C1010 off.
- ❑ Open the lid (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).
- ❑ Open the upper coin acceptance unit (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21).



Areas to be cleaned in the lower acceptance unit: centrifuge, coin validator, sorting spiral

- ❑ Remove dust and coin residues from the centrifuge using compressed air and a brush, if necessary.
- ❑ If necessary, dismantle centrifuge:

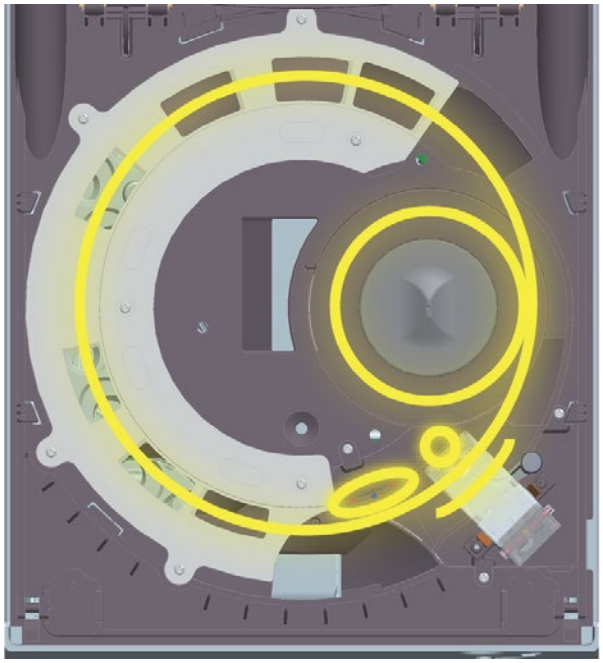
i When taking the next step make sure that the deflector pin does not fall out of the centrifuge.

- ❑ Use the tweezers to carefully draw out the centrifuge and keep the pin in safe place.
- ❑ Use cleaning tissues to wipe the centrifuge.
- ❑ Allow all parts to dry.
- ❑ Assemble in reverse order, close and switch the CINEO C1010 on again.

Cleaning the Coin Validator & Sorting Spiral

Cleaning interval	As required, at least twice a year
Cleaning agent/tool	Compressed air/high-pressure spray, slightly moistened cleaning tissues

- ❑ Switch the CINEO C1010 off.
- ❑ Open the lid (cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20).
- ❑ Open the upper acceptance unit (cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21).



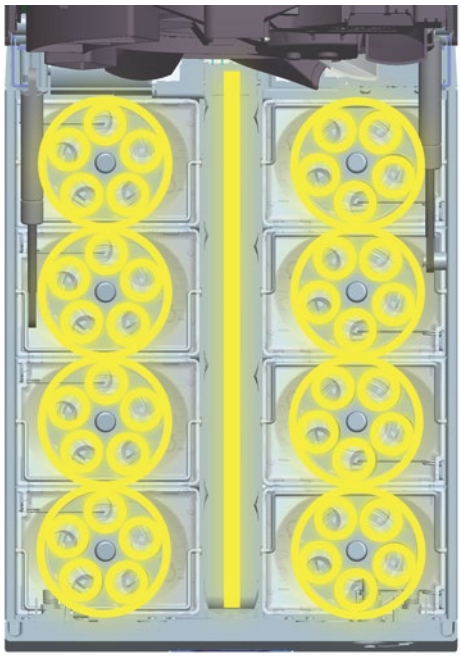
Areas to be cleaned in the lower acceptance unit: centrifuge, coin validator, sorting spiral

- ❑ Remove dust and coin residues from the coin validator, its sensors, also under the lever and the sorting spiral using compressed air and a slightly moistened cleaning tissue, if necessary.
- ❑ Allow all parts to dry.
- ❑ Make sure, that the measurement lever of the coin validator can be moved freely and the tissue did not get caught up in the lever.
- ❑ Close and switch the CINEO C1010 on again.

Cleaning the Coin Hoppers & Return Belt

Cleaning interval	As required, at least twice a year
Cleaning agent/tool	Compressed air/high-pressure spray

- ❑ Empty the coin hoppers (cf. Chap. "Emptying the coin hoppers ...", p. 24).
- ❑ Switch the CINEO C1010 off.
- ❑ Open the payout unit (cf. Chap. "Opening and closing the coin payout unit", p. 21).
- ❑ Remove coin hoppers (cf. Chap. "... manually", p. 24).



Coin hoppers & return belt to be cleaned

- ❑ Remove dust and coin residues from every single hopper and the return belt using compressed air.
- ❑ Use a slightly moistened cleaning tissue to wipe all fine dust off the hoppers and return belt, if necesarry.
- ❑ Allow all parts to dry.
- ❑ Assemble, close and switch the CINEO C1010 on again.

Firmware Update

The CINEO C1010 standard is fitted with four microcontrollers the firmware (FW) of which can be updated. Beyond that the CINEO C1010 options "User Interface" and "Coin Transfer Cassette" have their own firmware:

Main controller FW	1505-xxxx
Coin validator FW	0454-xxxx
Centrifuge FW	0465-xxxx
Hopper FW	1002-xxxx
Input/Display FW (option)	TBD-xxxx
Coin transfer cassette FW (option)	TBD-xxxx

Displaying current Firmware Versions

The firmware versions currently installed in the CINEO C1010 is transmitted to the control unit and can be shown on the display of the optional user interface:

Connecting the CINEO C1010 to the PC

The CINEO C1010 is connected to a PC in the workshop using the USB cable provided and the USB interface on the right-hand side of the CINEO C1010.

Uploading latest Firmware Versions

The latest firmware versions can be downloaded from our support page at

www.craneps.com or is made available to you on request.

After having connected the CINEO C1010 to the PC the latest firmware can be uploaded to the CINEO C1010 with the flash software provided by the customer using the DFUX protocol for USB.

Remedying the Cause of a Malfunction

The general status and operating state of the CINEO C1010 is indicated by means of the top and bottom illuminations.

Detailed status and error messages are transmitted to the control software and displayed on the optional user interface.

Quick Troubleshooting using Status Illumination

Lighting/Flashing	How long /often?	Meaning	Remedy, hints
	once	Coin input funnel ready to operate. Self-test OK	No error.
	for 2s	Initialization successfully completed	No error. Wait till illumination is on steadily to insert coins.
	steady ON	Stand-by mode: ready for coin insertion	No error.
	Blinking	Processing coins	No error.
	Blinking	Warning! Solving problem. Do not insert coins	Wait till problem has been solved and illumination is green or blinking yellow.
	Blinking	Attention! Problem solved and recorded. Ready for coin insertion	No error. Insert coins and note problem for next service (error record).
	Blinking	• Error! Optics in coin input funnel covered • Error! Optics in coin input funnel defective	• Remove foreign object from input funnel • Service case
	Blinking	Error! Transaction failed. Out of service	See error list
	Blinking	Coin payout unit is transporting coins to the coin return tray	No error. Take change out of the coin return tray.

Status & Error (Display) Messages

Status and error messages report on events of interest that happen while the CINEO C1010 is operating. Errors can be generated by every intelligent CINEO C1010 unit such as the coin validator or the hoppers also attempting to resolve their own errors. If they cannot clear the errors, the CINEO C1010 will pass the relevant error code to the control software.

As the CINEO C1010 is operated according to the ccTalk protocol, error codes are transmitted to the control software as part of routine polling. The error code itself is the significant information that is delivered. The error category and related information also transmitted is useful in helping the control software how to handle the error.

i In addition, the CINEO C1010 will store the time and date of the last 25 errors and the control software can issue a ccTalk command to retrieve this information (cp. ccTalk specification at www.ccTalk.org).

Errors are grouped into four categories based on how the occurrence of the error impacts the operation of the CINEO C1010.

Error Categories

The CINEO C1010 will attempt to resolve any errors or problem situations without external intervention. Events are prioritized in the categories defined below:

Informational	The event will be recorded and transmitted to the control software but the CINEO C1010 will continue to operate correctly and no intervention is required.
Attention	This error will require intervention by the operator and indicates the CINEO C1010 is currently not operating or shortly will not be capable of correct operation without intervention by the attendant. Examples might be a coin jam, a hopper running out of coins
Critical	This error indicates that it is likely that some component in the CINEO C1010 has failed and needs to be replaced. The error is severe enough to cause the machine to stop operating and intervention by the attendant will likely be insufficient to repair the problem, although the control software can recommend a course of action involving the attendant. One example might be an output failure on the CINEO C1010 main PCB or a communication failure between the CINEO C1010 units.
Service	Some part of the CINEO C1010 is due for routine maintenance and a service technician should be notified and perform the work associated with this service message though the CINEO C1010 will continue to operate correctly.

Error Codes locating Problem/Status

When the control software is polling the CINEO C1010 using the Get CINEO C1010 Buffered Status/Error command, the response to this command will indicate, amongst others, the CINEO C1010 unit where the error occurred:

Error code extract for	Relevant CINEO C1010 unit	
0x00	CINEO C1010 system	
0x01	Coin hopper 1	
0x02	Coin hopper 2	
0x03	Coin hopper 3	
0x04	Coin hopper 4	
0x05	Coin hopper 5	
0x06	Coin hopper 6	
0x07	Coin hopper 7	
0x08	Coin hopper 8	
0x09	Coin return tray	
0x0A	Coin validator	
0x0B	Coin return belt	

Error code extract for	Relevant CINEO C1010 unit
0x0D	Coin transport cassette
0x0E	Coin input funnel
0x0F	Auxiliary I/O
0x10	User interface

Troubleshooting Table

In the column “By whom” the order of the operating personnel is indicated, e.g. “Attendant”. If the indicated operator is not available you have to call the service.

The following table lists the ccTalk error codes transmitted by the CINEO C1010:

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
0x0001	Hopper count mismatch after system start-up. Number of hoppers identified are not matching with the number configured in the system	Critical	Make sure that all hoppers are installed and engaged correctly *(cf. Chap. " ... manually", p. 24)* Correct configuration via ccTalk protocol or upload new configuration data block	Attendant possessing the key for the lower lock Service
0x0002	Hopper denomination mismatch after system start-up. Hopper denominations and country code are not matching with the payout configuration	Critical	Correct configuration via ccTalk protocol or upload new configuration data block	Service
0x0003	Hopper count match. Number of hoppers identified are matching with the number of configured in the system	Info		
0x0004	CINEO C1010 lid open switch was detected as open. CINEO C1010 stopped operating	Attention	Close lid correctly *(cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20). The CINEO C1010 will continue to operate*	Attendant possessing the key for the upper lock
0x8007	CINEO C1010 lid open switch was detected as closed	Info		
0xHH64* (MSB of HH= 1)	CINEO C1010 control unit retrying communication after unsuccessfully attempting to communicate with a hopper	Info		
0xHH65*	Hopper communication failure. CINEO C1010 control unit was unable to establish com-	Critical	Make sure that the hopper is installed and engaged correctly *(cf. Chap. " ... manually", p. 24)*	Attendant possessing the key for the lower lock

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
	munication with the hopper.		If necessary, replace hopper	Attendant possessing the key for the lower lock
0xHH66*	Hopper replied with NACK status code after sending hopper a command	Info		
0xHH67*	Hopper replied with BUSY status code after sending hopper a command	Info		
0xHH68*	Lack of change. CINEO C1010 control unit commanded the hopper to dispense more coins than available in the hopper	Attention	Refill hopper *(cf. Chap. " Filling the coin hoppers ...", p. 22)*	Attendant possessing the key for the lower lock
0xHHC8* (MSB of HH = 1)	Enter hopper firmware update mode ACK	Info		
0xHHC9* (MSB of HH = 1)	Begin hopper firmware update ACK	Info		
0xHHCA* (MSB of HH = 1)	Upload hopper firmware ACK	Info		
0xHHCB* (MSB of HH = 1)	Finish hopper firmware update ACK	Info		
0x0901	Coin return tray is full. CINEO C1010 stopped dispensing coins	Attention	Take the change out of the return cup. The CINEO C1010 will then continue to operate	Customer / attendant
0x0902	Coin return tray not in position required to collect coins from the return belt. CINEO C1010 stopped operating	Attention	Install coin return tray correctly. The CINEO C1010 will then continue to operate	Attendant / service
0x8A64	CINEO C1010 control unit retrying communication after unsuccessfully attempting to communicate with coin validator	Info		
0x8901	Coin return tray is full. CINEO C1010 stops operating	Attention	Empty return tray	Customer / attendant
0x8902	The coin return tray was previously full and it went back to not full condition	Info		
0x8903	Coin return tray is not in the position required to accept coins from the return belt. CINEO C1010 stops operating	Attention	Bring return tray into correct position	Attendant / service
0x8904	Coin return tray is back in	Info		

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
	correct position			
0x0A65	Coin validator communication failure. CINEO C1010 control unit was unable to establish communication with the coin validator	Critical	Make sure that the coin validator is installed and engaged correctly *(cf. Chap. "Removing and reinstalling coin validator"* If necessary, replace validator *(cf. Chap. "Removing and reinstalling coin validator")*	Service Service
0x0A66	Coin validator replied with NACK status code after sending validator a command	Info		
0x0A67	Coin validator replied with BUSY status code after sending validator a command	Info		
0x0A68	Coin validator replied with wrong checksum	Info		
0x0A69	Coin validator replied with unknown command	Info		
0x0A6A	Coin validator replied with not allowed	Info		
0x0A6B	Coin validator replied with bad parameter	Info		
0x8ACC	Coin validator is entering boot loader mode	Info		
0x8ACD	Coin validator is exiting boot loader mode	Info		
0x8ACE	Coin validator sent ACK for command "verify CRC and set OK"	Info		
0x8ACF	Coin validator sent ACK for command "write data to buffer"	Info		
0x8AD0	Coin validator sent ACK for command "compare buffer with flash"	Info		
0x8AD1	Coin validator sent ACK for command "prepare sector"	Info		
0x8AD2	Coin validator sent ACK for command "erase sector"	Info		
0x8AD3	Coin validator sent ACK for command "copy buffer to	Info		

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
	flash"			
0x0AD4	Coin validator FW upgrade: invalid command (IAP#1). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0AD5	Coin validator FW upgrade: source address is not on a word boundary (IAP#2). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0AD6	Coin validator FW upgrade: destination address is not on a correct boundary (IAP#3). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0AD7	Coin validator FW upgrade: byte count is not multiple of 4 or is not a permitted value (IAP#6). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0AD8	Coin validator FW upgrade: sector number is invalid (IAP#7). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0AD9	Coin validator FW upgrade: sector is not blank (IAP#8). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0ADA	Coin validator FW upgrade: sector is not prepared (IAP#9). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0ADB	Coin validator FW upgrade: source and destination data is not same (IAP#10). FW file is corrupt	Attention	Provide new FW file and try again	Service
0x0ADC	Coin validator FW upgrade: flash programming hardware interface is busy (IAP#11)	Attention	Reset CINEO C1010	Service
0x0ADD	Coin validator FW upgrade: coin validator is in boot-loader mode	Info		
0x0A0001	Coin validator disabled by control software	Info	If necessary, enable coin validator using control software	Service
0x0A1000	Coin validator was reset	Info		
0x0A2003	Coin validator misses coin (jammed) and attempts to free the coin	Info		

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
0x0A2010	Coin jam in measurement area or sensors covered	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A2011	Accepted coin sensor covered	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A2012	Measurement lever blocked	Attention	Open lid and upper acceptance unit *(cf. Chap. "7Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. " Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A2013	Sorting error	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* or payout unit *(cf. Chap. "Opening and closing the coin payout unit", p.21)* and free coins from sorting spiral/chutes If necessary, clean sorting spiral *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)* and chutes *(cf. Service Manual)*	Attendant possessing the key for the upper/lower lock Service
0x0A2014	CINEO C1010 system timeout	Critical	Service Manual	Service
0x0A2015	Centrifuge blocked and cannot turn forward or backword	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins or foreign objects If necessary, clean centrifuge *(cf. Chap. "Cleaning the centrifuge", p. 30)*	Attendant possessing the key for the upper lock Service
0x0A2016	Coin conveyor belt blocked	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins or foreign objects from belt If necessary, clean conveyor belt *(cf. Chap. "Cleaning the coin conveyor belt", p. 29)*	Attendant possessing the key for the upper lock Service
0x0A2017	Trash flap blocked	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins or foreign objects from centri-	Attendant possessing the key for the upper lock

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
			fuge If necessary, clean centrifuge *(cf. Chap. "Cleaning the centrifuge", p. 30)*	Service
0x0A2018	Measurement timeout during measurement	Info	If necessary, open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and remove objects from coin validator	Attendant possessing the key for the upper lock
0x0A2019	Measurement timeout during compensation	Info	If necessary, open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and remove objects from coin validator	Attendant possessing the key for the upper lock
0x0A201A	At least one sorting sensor covered	Critical	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21* or payout unit *(cf. Chap. "Opening and closing the coin payout unit", p. 21)* and free coins from sorting spiral/chutes If necessary, clean sorting spiral *(cf. Chap. "Cleaning the coin validator & sorting spiral", p.31)* and chutes *(cf. Service Manual)*	Attendant possessing the key for the upper/lower lock Service
0x0A2020	Operating voltage low	Critical	Make sure that CINEO C1010 is connected correctly *(cf. Chap. " Putting the CINEO C1010 into service", p. 28)* Make sure that the coin validator is installed correctly *(Service Manual)*	Service Service
0x0A2021	Operating voltage high	Critical	Make sure that CINEO C1010 is connected correctly *(cf. Chap. " Putting the CINEO C1010 into service", p. 5)* Make sure that the coin validator is installed correctly *(Service Manual)*	Service Service
0x0A2022	Coin position sensors affected by external light	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins from validator If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A2023	Coin position sensors covered	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A2025	Coin validator checksum error	Critical	Update firmware and/or configuration	Service

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
			data block If necessary, replace coin validator *(Service Manual)*	Service
0x0A2030	Configuration data block checksum error	Critical	Update configuration data block If necessary, replace coin validator *(Service Manual)*	Service Service
0x0A2031	Firmware checksum error	Critical	Update firmware If necessary, replace coin validator *(cf. Service Manual)*	Service Service
0x0A2032	Coin validator hardware error	Critical	Replace coin validator	Service
0x0A2051..8	Sorting control sensor 1..8 error	Critical	Replace sorting spiral	Service
0x0A4n01..8 n = 0..F = Coin Type 1..8 = Sorting chute	Coin sorted via sorting chute 1..8	Info		
0x0A8n50 n = 0..F = Coin Type	Coin was rejected as sorting spiral/chutes blocked	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* or payout unit *(cf. Chap. "Opening and closing the coin payout unit", p. 21)* and free coins from sorting spiral/chutes If necessary, clean sorting spiral *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)* and chutes *(cf. Service Manual)*	Attendant possessing the key for the upper/lower lock Service
0x0A8n60 n = 0..F = Coin Type	Sorting timeout. Coin not sorted within given time period	Info	If necessary, clean sorting spiral *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)* and chutes *(cf. Chap. "Cleaning the coin sorting chutes & sensors", Service Manual)*	Service
0x0A8n61 n = 0..F = Coin Type	Acceptance timeout. Coin not accepted within given time period	Info	If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Service
0x0A8n63 n = 0..F = Coin Type	Unintended coin acceptance. Coin should have been rejected but was accepted	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free rejector pin If necessary, clean coin validator *(cf. Chap. " Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A8n64 n = 0..F = Coin Type	Unintended coin rejection. Coin should have been accepted but was rejected	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free rejector pin	Attendant possessing the key for the upper lock Service

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
			If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	
0x0A8n65 n = 0..F = Coin Type	Sorting error. Coin was sorted into the wrong hopper	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* or payout unit *(cf. Chap. "Opening and closing the coin payout unit", p. 21)* and free coins from sorting spiral/chutes If necessary, clean sorting spiral *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)* and chutes *(cf. Service Manual)*	Attendant possessing the key for the upper/lower lock Service
0x0A8n80 n = 0..F = Coin Type	Coin not accepted as coin acceptance inhibited by control software	Info	If necessary, enable coin acceptance using ccTalk protocol	Service
0x0A8n81 n = 0..F = Coin Type	Coin not accepted as coin inhibited by control software	Info	If necessary, enable coin using ccTalk protocol	Service
0x0A8n83 n = 0..F = Coin Type	Coin not accepted as normal coin acceptance band inhibited by control software (security level (narrow acceptance band) activated)	Info	If necessary, enable normal coin acceptance band/channel using ccTalk protocol	Service
0x0A8n91 n = 0..F = Coin Type	Coin could not be accepted and was rejected as at least two coins entered the measurement area at the same time	Info	Insert coin(s) again	Customer
0x0A8n93 n = 0..F = Coin Type	Coin could not be accepted due to polling timeout	Info	Increase polling frequency	Service
0x0A8n94 n = 0..F = Coin Type	Coin was rejected as coin acceptance was not polled	Info	If necessary, increase polling frequency	Service
0x0A8n96 n = 0..F = Coin Type	Coin was rejected as coin position sensors covered	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A8n97 n = 0..F = Coin Type	Coin was rejected as first coin position sensor covered	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf.*	Attendant possessing the key for the upper lock Service

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
			Chap. "Cleaning the coin validator & sorting spiral", p. 31)	
0x0A8n99 0..F = Coin Type	Coin was rejected as event buffer is full	Info		
0x0A8n9A n = 0..F = Coin Type	First coin position sensor timeout. Coin not detected within given time period	Attention	Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and remove foreign particles If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Attendant possessing the key for the upper lock Service
0x0A8n9B n = 0..F = Coin Type	Coin was rejected as previous coin has not been accepted yet	Info	Insert coin again	Customer
0x0A8n9C n = 0..F = Coin Type	Coin was rejected as previous coin has not been rejected yet	Info	Insert coin again	Customer
0x0A8n9E n = 0..F = Coin Type	Coin was rejected as validator misses coin to be accepted	Info	Insert coin again If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Customer Service
0x0A8n9F n = 0..F = Coin Type	Coin was rejected as validator misses coin to be rejected	Info	Insert coin again If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator & sorting spiral", p. 31)*	Customer Service
0x0A8nA0 n = 0..F = Coin Type	Accepted coin has not reached hopper yet	Info		
0x0AC000	Coin was rejected as not measured within the acceptance band programmed	Info		
0x0AC063	Coin was accepted though measured beyond the acceptance band programmed	Info		
0x0AC0C0	Coin was rejected due to measurement timeout	Info	Insert coin again Open lid *(cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20)* and bring coin validator arm into correct position	Customer Attendant possessing the key for the upper lock
0x0AC0C1	Coin was rejected due to measurement lever failure	Info	Insert coin again Open lid and upper acceptance unit *(cf. Chap. "Opening and closing the upper coin acceptance unit", p. 21)* and free coins If necessary, clean coin validator *(cf. Chap. "Cleaning the coin validator &*	Customer Attendant possessing the key for the upper lock Service

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
			sorting spiral", p. 31)	
0x0AFCnn	Communication error between coin validator and main PCB	Critical	Open lid *(cf. Chap. "Opening and closing the CINEO C1010 lid", p. 20)* and check connections of 10-pole and 20-pole cables on motor PCB, then open payout unit *(cf. Chap. "Opening and closing the coin payout unit", p.21)* and check connection of 20-pole cable on main PCB and connection of 10-pole cable on coin validator PCB	Service
0x0AFEF0	Configuration data block upload successful	Info		
0x0AFEF1	Configuration data block upload not successful	Critical	Repeat upload	Service
0x0AFEF4	Cleaning cycle started	Info		
0x0AFEF5	Cleaning cycle stopped	Info		
0x0AFF..	Unknown/other error			
0x0B01	Coin return belt motor failure. Return belt motor was commanded to operate but no current flow through the motor was detected	Critical	Make sure that the return belt and its motor are installed and connected correctly If necessary, replace return belt incl. motor	Service Service
0x0B02	Coin return belt motor overcurrent likely due to coin jam	Attention	Eliminate coin jam or foreign objects on the return belt	Attendant possessing the key for the lower lock
0x0E65	Coin input funnel communication failure. CINEO C1010 control unit was unable to establish communication with the input funnel	Critical	Make sure that the coin input funnel is installed/connected correctly *(cf. Service Manual)* If necessary, replace coin input funnel *(cf. Service Manual)*	Service Service
0x0E66	Coin input funnel replied with NACK status code after sending user interface a command	Info		
0x0E67	Coin input funnel replied with BUSY status code after sending user interface a command	Info		
0x0E68	Coin input funnel replied with wrong checksum	Info		
0x0E69	Coin input funnel replied with unknown command	Info		
0x0E6A	Coin input funnel replied with not allowed	Info		

ccTalk error code	Description/Cause	Category	Remedy/hints	By whom
0x0E6B	Coin input funnel replied with bad parameter	Info		
0x8B03	Clearing algorithm against coin return belt motor overcurrent started	Info		
0x8E64	CINEO C1010 control unit retrying communication after unsuccessfully attempting to communicate with coin input funnel	Info		
0x8E6C	Coin input funnel master inhibit set	Info		
0x8E6D	Coin input funnel was reset	Info		
0x8E6E	Coin(s) detected in coin input funnel. CINEO C1010 started operation	Info		
0x8E6F	Replenishment flap is open	Info	If necessary, close replenishment flap	Operator
0x0E70 ... 0x0E7F	Hardware errors of lid components	Critical		

** HH = coin hopper number 01-08, each error can be present on each individual hopper.*

Technical Data

Supply voltage	24V DC ±10%	
Power supply	Input: 100–240V AC	
Output:	24V DC ±10%	
Current consumption	Stand-by mode:	approx. 600mA
	Operating mode:	approx. 3,000mA
	Max.: approx.	5,000mA
	Inrush current:	approx. 8,000mA
Temperature range		
Operation:	5 °C to 55 °C	
Transport:	-25 °C to 60 °C (in original packaging)	
Storage:	5 °C to 40 °C (in original packaging)	
Temperature change	Max. 0.2°C/min	
Rel. humidity Operation:	5–85%	
Transport:	15–98%	
Storage: -	15–98% (in original packaging)	
	5–85% (unpacked)	
Condensation	not permitted	

Mechanical Environmental Conditions

	Class	**Comment**
Operation	3M2	Building without strong vibration
Transport (in original packaging)	2M2	Any truck and trailer or carriage by rail/air
Storage (in original packaging)	1M3	Sensible vibrations & shocks due to machines or passing vehicles

Noise emission	Sound power level LwAd in acc. with ISO 9296: Stand-by mode: x.xB Typical operation cycle: x.xB Sound pressure level LpAm in acc. with ISO 9296: Stand-by mode: xxdB) Typical operation cycle: xxdB
Interfaces	PC: USB standard B For pin assignment see next page
Coin acceptance	Capacity to validate: up to 24 different coin denominations Capacity to sort: up to 8o coin denominations, depending on sorting spiral installed Capacity to process: up to 50 coins at once in transaction mode up to 500 coins from transfer cassette in filling mode (€1-sized coins) Diameter: depends on sorting spiral installed, EUR configuration: 16.25–25.75mm Speed, transaction mode: 10 coins/s max. Speed, filling mode: xx coins/s
Coin payout	Capacity to collect: up to 8 coin denominations in up to 8 single hoppers approx. 330 €1-sized coins/single hopper Speed, transaction mode: 3 coins/s/hopper max., 4 hoppers may pay out simultaneously
Transaction time	5s for three different coins
Device dimensions	Height: 250mm Width: 300mm Depth: 481mm (incl. coin return tray) 416mm (without coin return tray)
Device weight	without coins: 14,396g with coins: 31,953g
Mounting position	Horizontal, max. deviation: ± 2°

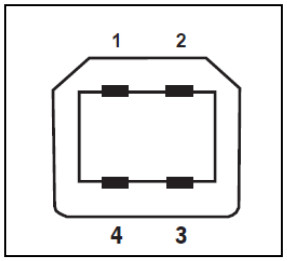
Interfaces

USB PORT

USB standard B

PINNING

Pin	Function	Description
1	VCC	+5V
2	D-	Data-
3	D+	Data+
4	GND	Ground



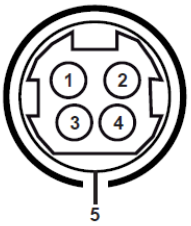
POWER CONNECTOR

Type: KPJX-4S-S, socket, shielded

Manufacturer: Kycon

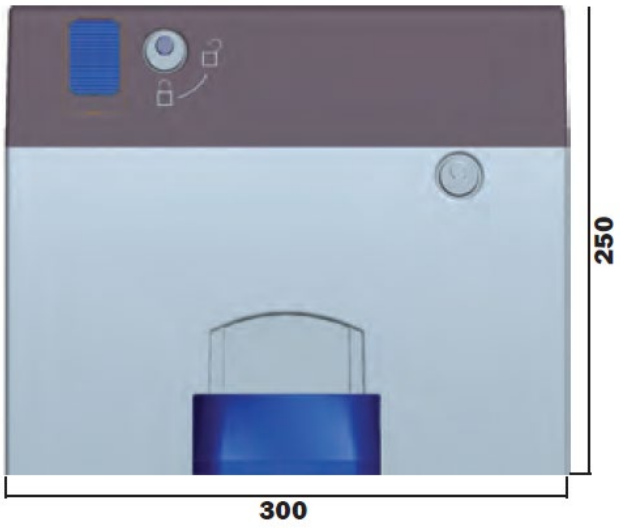
PINNING

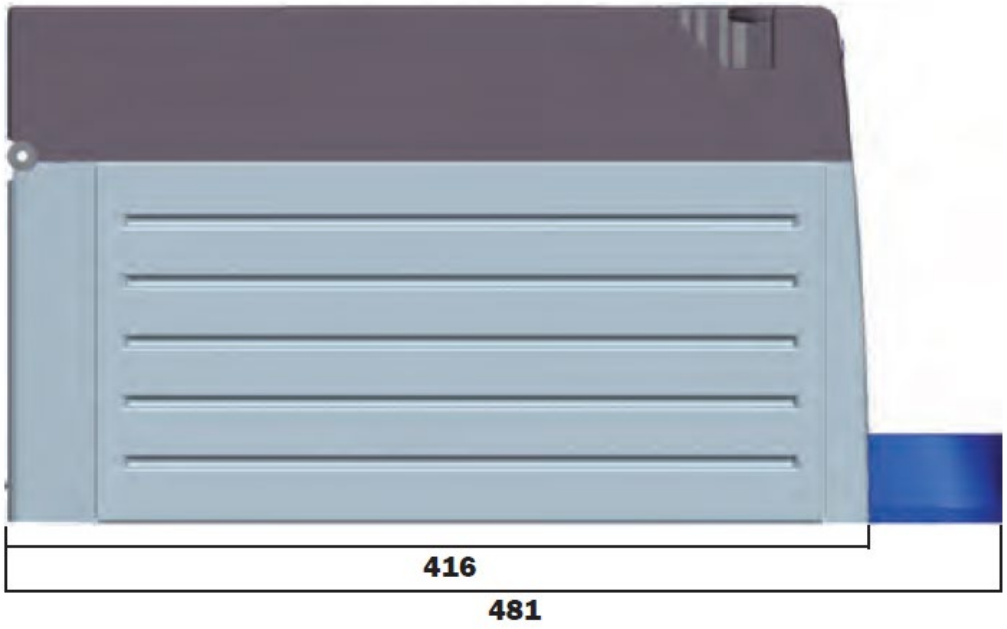
Pin	Function
1	24V DC
2	24V DC
3	Chassis ground (GND)
4	Chassis ground (GND)
5	Ground

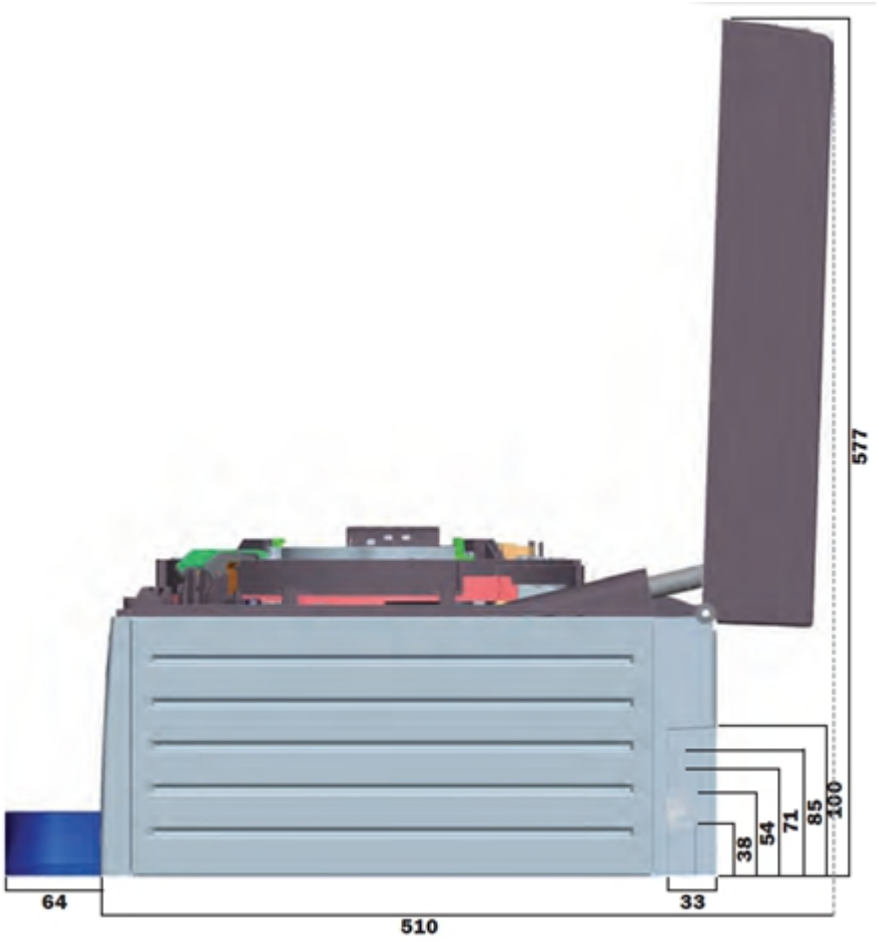


Appendix

Installation and Service Dimensions



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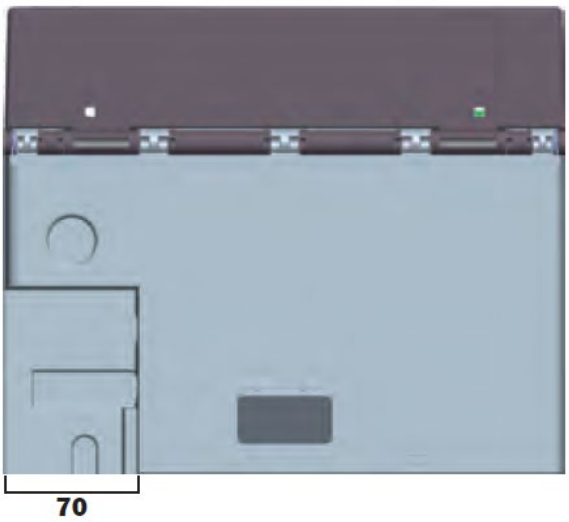
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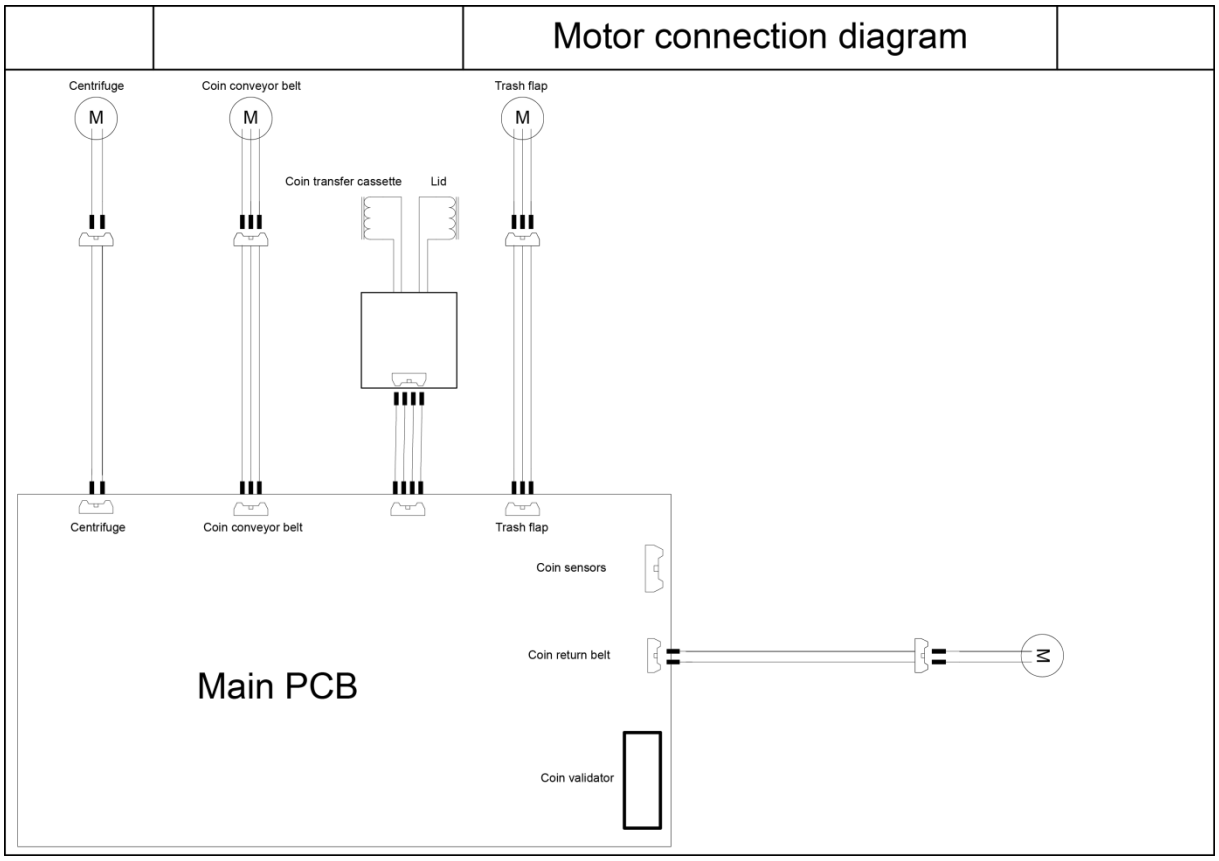
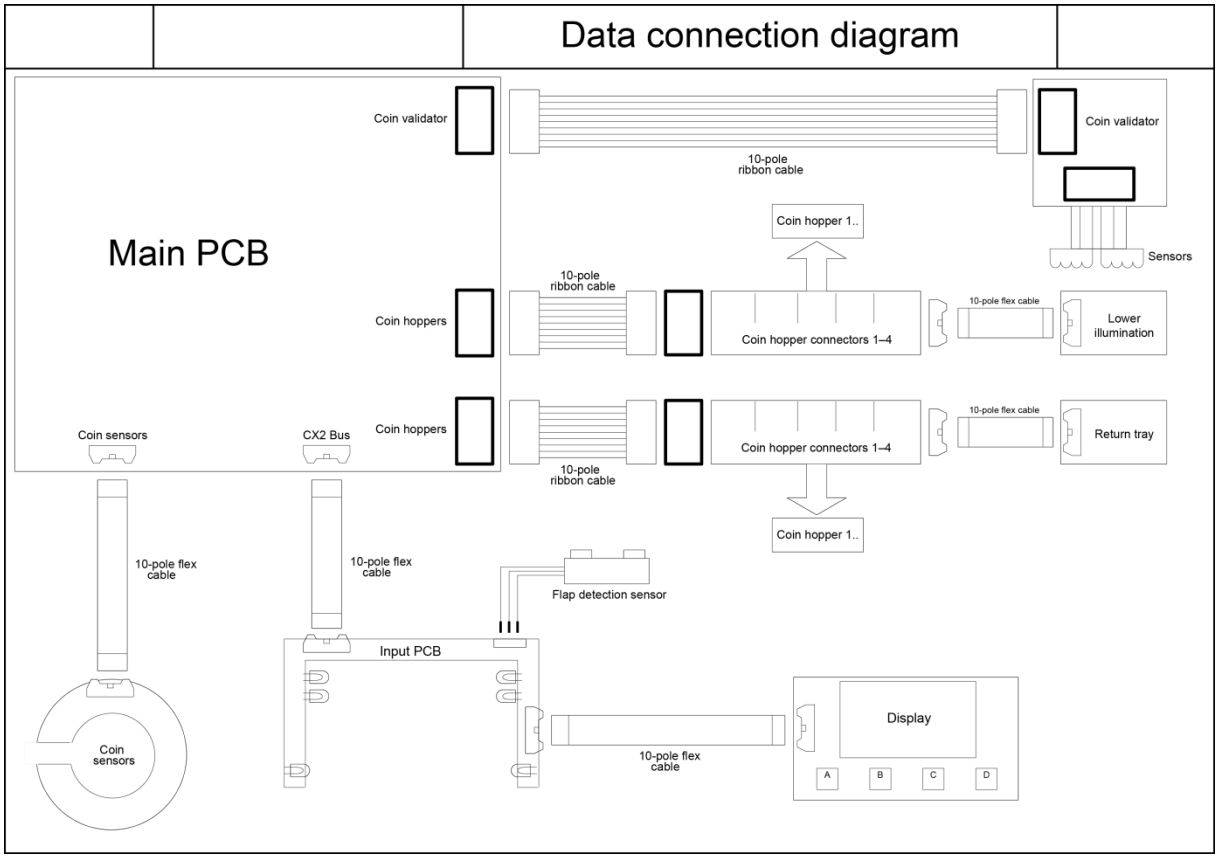
Block Diagrams

The following block diagrams show the main PCB connectors and are intended to provide general overview of the CINEO C1010 wiring to make it easier for you to service the CINEO C1010.

Motor Connection Diagram



Data Connection Diagram



Cleaning Materials: Order Numbers

The items listed below can be ordered from Wincor Nixdorf branch office or your Wincor Nixdorf sales partner.

Product Name	Order Number	Explanation
Cleaning set for EDP devices: 125ml plastic cleaner w/o alcohol 125ml TFT/LCD/screen cleaner 35 dust cloths 3 keyboard swabs for places difficult to reach 1 keybord sponge	01750097335	For cleaning and maintaining keyboards and varnished and plastic-coated housing
Damp cleaning cloths Dispenser box with 100 cloths	01750097332	For cleaning and maintaining delicate EDP devices, keyboards and housing
Damp cleaning cloths Antistatic and fluff free Dispenser box 60 cloths	01750097334	For cleaning display panes
Compressed air spray PRESSAIR 400ml bottle w/o valve, 70cm hose	01750097331	Cleaned compressed air, CFC-free, for removing loose dust and dirt particles
Cloth with ISOPROPYL 100 pieces	01750104065	Pure isopropyl alcohol for cleaning coin validator, displays etc.
Cleaning card	01750016388	For cleaning magnetic heads and chip contacts in ID card readers
Cleaning brush set 1x brush incl. 20xcleaning cloth with ISOPROPYL	01770037265	For cleaning the coin validator

Please note the manufacturer's specifications on the packaging and on the information sheet included in the packaging. The product may be damaged or soiled if materials are used that are not approved or if used improperly.

Important Notes

The following **Safety Instructions** should be read carefully and strictly observed when handling technical appliances and before doing any work on the device. Further safety, installation, operating and maintenance instructions can be found in the manuals available on the internet:

http://www.wincor-nixdorf.com/internet/site_EN/EN/Support/Downloads/downloads_node.html

Should you have any questions, please contact your dealer or our service department. Devices supplied by Wincor Nixdorf International GmbH (WN) comply with the respective safety regulations for data-processing devices and information technology devices, including electrical office equipment for use within an office or store environment.

- ❑ Always consult the installation and operating instructions before doing any work with an appliance. These **manuals** are available on the Internet (see above).
- ❑ If an appliance is brought into the service area from a colder environment, condensation may occur. The appliance must be absolutely dry before activation. This requires an acclimatization time of at least two hours.
- ❑ Observe warning and information labels on the device.
- ❑ Appliances that are equipped with safety tested power cables must be plugged into a grounded socket.
- ❑ Always lay the supply leads and cables in such a way that they cannot be stepped on or tripped over.
- ❑ Make sure that there is always free access to the grounded sockets used or to the electrical circuit-breakers of the house installation.
- ❑ In order to completely separate the appliance from the mains voltage, switch off the appliance and disconnect it from the mains.
- ❑ Ensure that no foreign objects (e.g. paper clips) or liquids enter the housing of the appliance. This may result in electric shock or short circuit.
- ❑ Always keep the ventilation slots free of obstruction to ensure adequate air circulation and avoid overheating.
- ❑ Data cables must not be plugged in or unplugged during electrical storms.
- ❑ Always hold the plug when removing the power cable or other cables. Never pull the cable itself. Have damaged power cables replaced immediately.
- ❑ Only use accessories and extension components that have been approved by Wincor Nixdorf. Nonobservance can result in damage to the device or violations of regulations concerning safety, radio interference and ergonomical requirements.
- ❑ Protect the appliance from vibrations, dust, moisture and heat.

- ❑ Transport the appliance only in its original packaging (to protect it against knocks and bumps).
- ❑ In **case of an emergency** (e.g. damaged cabinets, controls or power cables, liquids or foreign objects in the device) take the following steps:
  - Disconnect the plug connector of the power supply cable from the grounded socket in the building installation.
  - Inform the customer service responsible for you.
- ❑ Properly dispose of worn out parts that may be environmentally hazardous (e.g. batteries).
- ❑ **If** a **lithium battery** is supplied with the appliance, ensure that the battery is replaced with an equivalent type. Otherwise there is danger of explosion! Lithium batteries may only be replaced with identical types or other types recommended by the manufacturer. Batteries must be disposed of according to **local regulations** on the disposal of **special waste**.
- ❑ Appliances may only be repaired by authorized technicians. Unauthorized opening of the housing or inexpert repairs can result not only in considerable personal danger, but will also invalidate your warranty and liability protection.

Certificates

CE Marking

This device complies with the requirements of EEC directive 2004/108/EEC with regard to "Electromagnetic Compatibility", 2006/95/EEC, "Low Voltage Directive" and 2011/65/EU (RoHS Directive).

Therefore, you will find the CE mark on the device or on its packaging.

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.

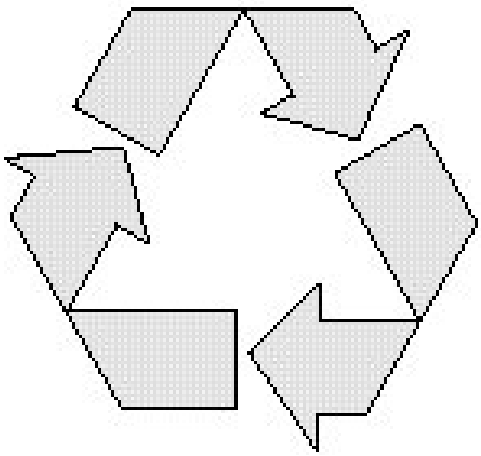
Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful inter-ference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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. Modifications not authorized by the manufacturer may void users authority to operate this device. This class A digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conforme à la norme NMB-003 du Canada.

Recycling the CINEO C1010



The CINEO C1010 was designed according to the Wincor Nixdorf standard "Environmentally Conscious Product Design and Development”.

The CINEO C1010 is manufactured without the use of CFCs and CCHs and is manufactured to a great extent out of materials and components which are recyclable.

For recycling purposes do not attach any additional adhesive labels to the device.

Wincor Nixdorf disposes of old devices in an environmentally responsible manner at a recycling center that is ISO 9001 and ISO 14001 certified, as is the entire company.

Follow your local regulations on the disposal of toxic waste (such as the system ribbons).

Your Wincor Nixdorf vendor will answer any questions you have concerning returns, recycling, and disposal of our products.

Wincor Nixdorf International GmbH
D-33094 Paderborn

Order No.: ***01750262008A***