## icr



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## Use of Materials Limitations

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## 1. General Information

### 1.1.Features

- Six tube cassette for maximum coin inventory.
- Easy to use and suitable for vending machines world wide.
- LCM display shows current coin changer status.
- Optional portable programmer to update coin changers installed on vending machines.
- Modular design for cheap and easy maintenance.
- Modular tubes for a variety of coin configuration.
- Adjustable acceptance rate calibration on site.
- High security through state of the art anti-fishing mechanism.


### 1.2.System Specifications

| Supply Voltage | MDB: 20V DC ~45V DC <br> MDB: 10V DC ~45V DC (Battery Mode) <br> JPSTD: 24V DC $\pm 10 \%$ <br> Executive: 24 V AC $\pm 10 \%$ |
| :---: | :---: |
| Power Consumption | Standby mode $\leqq$ 3.6 W <br> Coin acceptance $\leqq$ 15.6 W <br> Coin payout $\leqq$ 15.6 W <br> ( 36 W max. when Power is turned on  <br> initially)   |
|  | Battery operation (Power Saving Type) <br> Sleep mode $\leqq 10$ uA <br> Standby mode $\leqq 3.6 \mathrm{~W}$ (wake-up mode) |
| Temperature Range | $-15^{\circ} \mathrm{C} \sim+60^{\circ} \mathrm{C}$ |
| Storage Temperature | $-30^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$ |
| Temperature Change | Max. $0.2{ }^{\circ} \mathrm{C}$ / minute |
| Relative Humidity | Up to 85\% (no condensation) |
| Serial Interface | MDB (connector: Minifit 6-pin) <br> JPSTD <br> Executive (connector: Molex 15 -pin \& 9 <br> pin) ${ }^{1)}$ |
| Peripherals MDB | MDB Bill Acceptor (for MDB \& Executive interface) MDB cashless key reader (for Executive interface only) ICT MTB (Multi Tool Box) |
| Display | LCM <br> Menu language: English, Русский, Deutsch, Español |

[^0]
## Acceptable Coin Size

Coin diameter $16 \mathrm{~mm} \sim 28 \mathrm{~mm}$
Coin Thickness $1.2 \mathrm{~mm} \sim 2.6 \mathrm{~mm}$

## Acceptance Speed <br> Coin payout

Approx. 1 coin / second
Max. 6 coin types from a tube cassette

Coin diameter and thickness for dispensing depends on tube cassette type in use

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coin Diameter mm | A | B | C | D | E | F |
| 26.0-28.5 | v,* | v, * | - | - | - | - |
| 24.0-26.0 | v , * | v, * | v | v | v | v |
| 22.0 -24.0 | v,* | v | v | v | v | v |
| $20.0-22.0$ | V | v | v | v | v | v |
| 18.0-20.0 | V | v | v | v | v | v |
| $16.0-18.0$ | V | v | v | v | v | v |
| (* Supports Escrow Function) |  |  |  |  |  |  |

## Other Functions

Downloadable audit - EVA-DTS by IrDA or UART (for MDB \& Executive)

Firmware Updates by IrDA (for MDB \&
Executive)
MDB-FTL (only for MDB Interface)
Customer \& Product Serial Number Setting

99 coin channels
Colored diagnostic LEDs

### 1.3. Dimensions



### 1.4. Module Descriptions

Recognition: As shown in figure below


Coin Return Lever: After a coin is inserted, press the coin return button to return the coin

LCM Panel: As shown in figure below


Coin Tubes: Press the latch as shown below to remove the coin cassette


## 2. Installation

- Attention!! Prior installation, please remove the coin changer from the carton and inspect for damages.
■ Attention!! Turn off VMC Power during installation - IMPORTANT!!!
- Warning!! Do not plug both MDB and Executive connector to VMC board simultaneously!! It may cause damage of VMC board.
Device Mounting Instruction

1. Press the green hook at the left side of the coin changer and tilt the upper module.
2. Unplug flat cable to separate upper module from device.

3. Loosen the 3 mounting screws 2 or 3 turns. (do not unscrew these completely)
Lift the coin changer to mount inside the vending machine.
4. Tighten the screws and place the upper module back to the device.
5. Plug flat cable back to upper module then close the upper module until it has been firmly fixed by the green hook.
Plug device power and communication cable to vending machine.


Tube Cassette Refill Instruction
6. Press the green cassette fixed latch to pull out the cassette at an upwardly slanted angle.
7. Refill coins into tube cassette and ensure that the coins enter the corresponding tubes and flatly placed. Then place the tube cassette back to Changer.

Note! You may choose coin refill mode to refill coins without open tube cassette. (Refer to code 100)


| Installation Checklist |  |  |
| :---: | :---: | :---: |
|  | Check that there is a 3 to 5 mm gap between the coin changer return lever and the vending machine return mechanism. |  |
|  | Check that when vending machine return lever has been pressed and released, the reject gate of the coin recognition module can be opened and closed properly. |  |
|  | Check that the coin insertion, coin return box, and coin storage box channels of the vending machine line up with the corresponding slots of the coin changer. If the slot has not been lined up, please adjust accordingly. |  |
|  | Insert a coin to check whether it can pass through the coin changer successfully. Please ensure that there is no interference around the coin recognition module. |  |

## Initialization Checklist

- While vending machine in an energized state, please DO NOT plug/unplug any wires on CC6000/CC6100.

| Please ensure that there are no interferences between the |
| :--- |
| connected wires, the coin insert and return device, and the door |
| of the automatic vending machine. After the inspections are |
| complete, then turn on the vending machine power. |
| Check the amount of coins in each coin tube is above the <br> minimum requirement level. Please refer to sticker on the tube <br> cassette for minimum level information. <br> (The coin changer would not work correctly without enough coins <br> in the coin tubes.) <br> After refill of tube cassette, the coin changer will detect the <br> adequate coin quantity within a few seconds. <br> Dispense at least 1 coin from each coin tube to ensure that the <br> dispensed coins fall into the coin return box of the vending <br> machine. |

## 3. Operation

### 3.1. EZ code overview

| Operating Functions |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :---: | :---: |
| Code | LCM Display | Function Description |  |  |  |
| 100 | Refill Coin | Coin Refill Function by Coin Insertion <br> under Cash Float Mode | -Accessible without password <br> -Cash Float Mode only |  |  |
| 101 | Total In/Out | Check the Total Coin PayIn and PayOut <br> Value Counter | -Accessible without password |  |  |
| 115 | Clear Tube Count | Clear Counting Memory of All Coin Tube <br> Inventory | -Accessible without password |  |  |
| 129 | Language | Set language | -Accessible without password |  |  |

To access all menu functions requires password verification. Press " D " 3 times under main menu to open password input page. Default Password is ABCD. See next page for complete menu functions.

| Setting Functions |  |  |  |
| ---: | :--- | :--- | :--- |
| Code | LCM Display | Function Description |  |
| 102 | Reset Records | Clear the Total Coin Payln and PayOut <br> Value Record |  |
| 103 | Accept/Reject Coin Switch | Set Accept or Reject to Coin <br> Denominations |  |
| 104 | Tube Open/Close Switch | Set Open or Close to Coin Tubes |  |
| 107 | Configure Cash Float | Set Cash Float Configuration for Various <br> Coin Denominations | -Cash Float Mode only |
| 108 | Activate Cash Float | Set Cash Float Type for Various Coin <br> Denominations | -Cash Float Mode only |
| 109 | Check Current Cash Float | Check Current Cash Float of Various <br> Coin Denominations | -Cash Float Mode only |
| 110 | Change Mgmt. | Set the Change Return Mode | -JPSTD only |
| 111 | dle Display | Set the Standby LCM Display Mode | -Cash Float Mode only |
| 112 | BA Type Setting | Set the BA Interface | -Special Function |
| 113 | Default Setting | Restore to Default Factory Settings |  |
| 116 | Cassette Type | Coin Tube Configuration Mode | -Special Function |
| 117 | Error Info | Display Error Message Records |  |
| 118 | Bill(s) per Transaction | Set the Bill Acceptance Limitation for the <br> BA | -ICT BA only |
| 119 | CashFloat Mode | Set Coin Tube Inventory Counting Mode |  |
| 120 | Set ID | Set Customer \& Machine Number | -Special Function |
| 121 | Coin->CashBox Setting | Set Coin Acceptance to Cash Box <br> Condition |  |
| 122 | Expansion Escrow Setting | Set Escrow for NTD 50 | -Special Function, only for NTD |
| 123 | Aensor Inventory <br> Adjustment | Detect Tube Inventory |  |
| 124 | Reserved Coin | Set Reserved Coin Function | -Special Function |


| Code | LCM Display | Function Description |  |
| ---: | :--- | :--- | :--- |
| 125 | Accessibility options | Set LCM accessibility under door-switch <br> status and password security |  |
| 126 | Manual Inventory <br> Adjustment | Refill Coin Inventory function by inserting <br> coins into tube cassette directly | -NTD model only |
| 127 | Residual Credit | Setup residual credit, price adjusted by <br> Changer |  |
| 128 | Token Learning Mode | Token learning mode |  |
| 130 | Reject Lever Setting | Set no refund after inserting payment |  |
| 131 | Acceptance limit For <br> Changer | Set Credit Acceptance Limit |  |
| 132 | Maximum for Insert Q'TY | Set limitation of coins in single <br> transaction |  |
| 133 | Decimal <br> and Scaling | Set Decimal point and Scaling Factor |  |


| Executive Setting Functions |  |  |  |
| ---: | :--- | :--- | :--- |
| Code | LCM Display | Function Description |  |
| 200 | Sell Mode | Set Single Vend or Multi Vend | -Executive only |
| 201 | Price Display | Set Price Display on VMC | -Executive only |
| 202 | Product Price | Set Product Price Holding by Changer | -Executive only |
| 203 | Price Holding | Set Price Holding by Changer or VMC | -Executive only |
| 204 | $2^{\text {nd }}$ Price for Cashless | Set 2nd price for cashless function on or <br> off | -Executive only |
| 205 | Enable Bill Acceptor | Set BA enable with or without e-key | -Executive only |
| 206 | Decimal Adjustment | Decimal Setting | -Executive only |
| 207 | Residual Credit | Setup residual credit | -Executive only |
| 208 | Acceptance limit For | Set Credit Acceptance Limit | -Executive only |
| 209 | Changer | redit limit For Cashless | Set Credit limit for cashless |
| 210 | Bill(s) per Transaction | Set BA limitation per transaction | -Executive only |
| 211 | Exact Change Notice | Set exact change notice on display | -Executive only |

### 3.2. Dispensing Coins To Low Level


(Figure.10)

| KEY | Function |
| :---: | :--- |
| A | Tube A, move left |
| B | Tube B, move upward |
| C | Tube C, move right |
| D | Tube D, back |
| F | Function |
|  | Mube E, move downward |
|  | Mube F, enter |
|  | Enter main menu |

Dispensing coins to low level in all coin tubes

* Press the return lever together with manual button for 3 seconds. Changer will discharge coins until all tubes reach one under minimum level.
(If the minimum level has not been configured by the user, the default minimum coin level would be applied.)


## Dispensing coins to low level in a specific tube

* Press tube key once to dispense 1 coin from corresponding tube.
* Press the return lever together with the tube key for 3 seconds. Changer will discharge the selected tube until it reaches one under minimum level.


### 3.3. Operating Function Descriptions

| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 100 Refill Coin | Coin Refill Function by Coin Insertion under Cash Float Mode | -Accessible without password -Cash Float Mode only |
| Default | Definition <br> Enter coin refilling mode to fill up to cash float level of each coin tube Note! Cash float level depends on code 107 setting.(see 3-2-3) |  |
| N/A |  |  |
| LCM | Descriptions |  |
| Refill Coin 100 | Press the Manual button. Use A / C to scroll to EZ code 100. Press $F$ to enter. |  |
| Positions |  |  |
| $\begin{array}{\|llll\|} \hline- & A,- & B,- & C \\ - & D,- & E,- & F \\ \hline \end{array}$ | LCM shows required amount of each denomination in sequence from low to high value, as left figure position $A$ to $F$. |  |
| Require amount | In example of EU 6 denominations, position A to F represent denominations of 5cent, 10cent, 20cent, 50cent, $1 €$ and $2 €$. |  |
| $\begin{aligned} & -70,-61,-55 \\ & -\quad 49,-50,-53 \end{aligned}$ | Insert coins until all tubes reach cash float level. <br> The counter decreases when refilling coins and disappears when it reaches cash float level. |  |
| Number disappears when tube reach cash float level |  |  |
| $\begin{array}{rrr} - & 40,- & 32,- \\ - & 40 .- & . \end{array}$ | Caution!! Please empty all coin tubes before refilling, and do not repeatedly enter the refill mode among refilling. |  |
|  | Manual to exit. |  |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 101 Total In/Out | Check the Total Coin Payln and PayOut Value Counter | -Accessible without password |
| Default | Definition |  |
| N/A | Display current bookkeeping data. |  |
| LCM | Descriptions |  |
| Total In/Out ${ }^{101}$ | Press the Manual button. Use A / C to scroll to EZ code 101. Press F to enter. |  |
| PayIn : \$0 <br> PayOut: \$0 <br> Difference: \$0 | Use B / E to switch the data below: <br> -Pay in amount <br> -Pay out amount <br> -Difference ( IN>OUT display "+", OUT>IN display "-") <br> Press Manual to exit. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description |
| :--- | :--- | :--- |
| $\mathbf{1 1 5}$ | Clear Tube Count | Clear Counting Memory of All Coin Tube <br> Inventory |
| Default | Definition | -Accessible without password |
| N/A | Clear tube inventory counter's memory. |  |
| LCM | Descriptions |  |
| Clear Tube Count Press the Manual button. <br> Use A / C to scroll to EZ code 115. <br> Press F to enter. <br> Clear Tube Count <br> Are You Sure? Press F to clear memory.. <br> Caution!! Please empty the coin tubes before clear memory. Leave <br> coins inside tube cassette may cause operational problem to changer. <br>  Manual to exit. |  |  |


| Code | LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: | :---: |
| 129 | Language | Set language | -Accessible without password |
| Default |  | Definition |  |
| Depends on region |  | User can select menu language. <br> -English <br> -Русский <br> -Deutsch <br> -Español |  |
| LCM |  | Descriptions |  |
| Language |  | Press the Manual button. Use A / C to scroll to EZ code 129. Press F to enter. |  |
| English |  | LCM shows current setting. <br> Press B / E button to select language. Press F to save. |  |
|  |  | Manual to exit. |  |

### 3.4. Setting Function Descriptions

| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 102 Reset Records | Clear the Total Coin PayIn and PayOut Value Record |  |
| Default | Definition |  |
| N/A | Reset bookkeeping data. |  |
| LCM | Descriptions |  |
| Reset Records 102 | Press the Manual button. Use A / C to scroll to EZ code 102. Press F to enter. |  |
| Reset Records Are You Sure? <br> Data has been erased | Press F to confirm clearance of the memory. <br> LCM shows erased message when data has been erased successfully. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: | :---: |
| 103 | Accept/Reject Coin Switch | Set Accept or Reject Denominations |  |
| Default |  | Definition |  |
| All Accept |  | Setup changer to accept or reject to each denomination. |  |
| LCM |  | Descriptions |  |
| Accept/Reject Coin Switch 103 |  | Press the Manual button. <br> Use A / C to scroll to EZ code 103. Press F to enter. |  |
| EUR\$0.05:Accept "F" to Change |  | Use B / E to switch coin values. <br> LCM shows current setting of the denomination. Press F to change the setting. (Accept / Reject) <br> Press Manuel to save. |  |
|  |  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 0 4}$ | Tube Open/Close Switch | Set Open or Close to Coin Tubes |  |
| Default | Definition |  |  |
| All ON | On/off switch for Tube A, B, C, D, E, and F. |  |  |
| LCM | Descriptions |  |  |
| Tube Open/Close <br> Switch Press the Manual button. <br> Use A / to scroll to EZ code 104. <br> Press F to enter. <br> TUBE A ON <br> "F" to Change Use B / E to switch tubes. <br> Press F to change tube setting. (ON / OFF) <br> Press Manuel to save. | Manual to exit. |  |  |




| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 109 Check Current Cash Float | Check current cash float setting of various coin denominations. | -Cash Float Mode only |
| Default | Definition |  |
|  | Check current cash float setting of various coin denominations. |  |
| LCM | Descriptions |  |
| Check Current Cash Float 109 | Press the Manual button. Use A / C to scroll to EZ code 109. Press F to enter. |  |
| $\begin{aligned} & \$ 0.05 \text { Cash Float } \\ & 070 \end{aligned}$ | Press $F$ to enter cash float information acquiring mode. Use B / E button to scroll through each coin value's cash float configuration. When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 1 0}$ | Change Mgmt. | Set the Change Return Mode |  |
| Default | Definition |  |  |
| Highest Value | Setup change return by the original coin value or by the highest coin value. <br> Org. Coin Value: return by original inserted sequence. <br> Highest Value: return starting from highest coin value. When changer cannot <br> return by highest value, it returns by original coin value. <br> Note! This function only works with the JPSTD interface |  |  |
| LCM | Descriptions |  |  |
| Change Mgmt. | Press the Manual button. <br> Use A / to to scroll to EZ code 110. <br> Press F to enter. |  |  |
| Highest Value <br> "F" to Change Press F to change its current setting. <br> (Highest Value/Original Coin Value) <br> When finished, press Manual button to exit. <br>  Manual to exit. |  |  |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 1 1}$ | Idle Display | Set the Standby LCM Display Mode |  |
| Default | Definition |  |  |
| Coin Q'TY | Change coin changer's LCM display in standby status. <br> Coin Q'TY: display coins in each tube. <br> Total Coin Value: display total amount of vending. |  |  |
| LCM | Descriptions |  |  |
| Idle Display | Press the Manual button. <br> Use A / to scroll to EZ code 111. <br> Press F to enter. |  |  |
| Coin Q' TY <br> "F" to Change | Press F again to change display method. <br> (Coin Q'TYTTotal Coin Value) <br> When finished, press Manual button to exit. |  |  |
| Manual to exit. |  |  |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 1 2}$ | BA Type Setting | Set the BA Interface | 6100 E excluded |
| Default | Definition |  |  |
|  | Select type of connected bill acceptor. <br> (nnly work on ICT Bill Acceptor connect to Coin Changer) <br> Note! This is a special function. The Coin Changer must lap joint with <br> the ICT Bill Acceptor for this function to work. |  |  |
| LCM | Descriptions |  |  |
| BA Type Setting | Press the Manual button. <br> Use A / Co scroll to EZ code 112. <br> Press F to enter. |  |  |
| BA: JPSTD  <br> "F" to Change Press F again to change BA type setting. (JPSTD/JPSTD with <br> escrow/MDB/MDB with escrow) <br> When finished, press Manual button to exit. <br>  Manual to exit. |  |  |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 1 3}$ | Default Setting | Restore to Default Factory Settings |  |
| Default | Definition |  |  |
| N/A | Restore factory default setting. Example: cash float...etc. <br> Cash float setting will be reset to low level of each denomination. |  |  |
| LCM | Descriptions |  |  |
| Default Setting |  |  |  |
| 113 | Press the Manual button. <br> Use A / to scroll to EZ code 113. <br> Press F to enter. |  |  |
| Are You Sure? | Press F to restore factory setting mode. <br> Press F again to confirm of reset to factory default, changer restart <br> automatically. Otherwise, press Manual to cancel. |  |  |
|  | Manual to exit. |  |  |


| Code | LCM Display | Function Description |
| :--- | :--- | :--- |
| $\mathbf{1 1 6}$ | Cassette Type | Coin Tube Configuration Mode |




| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 119 CashFloat Mode | Set Coin Tube Inventory Counting Mode |  |
| Default | Definition |  |
| Cashfloat Mode <br> Default amount is the maximum level of each tube. | Select counting method of coin tube inven <br> Cashfloat Mode: Changer system keeps tubes. Even after reboot or power reset, co memory. <br> Sensor Mode: After reboot or power reset inventory in tubes through low level senso displays $\mathrm{N}, \mathrm{L}$ or H according to coin amout N - Tube empty <br> L - Coins reach low level amount <br> H - Coins reach high level amount $\begin{array}{lll} A=N, & B=N, & C=N \\ D=L, & E=H, & F=H \\ \hline \end{array}$ <br> Some operational functions are unavailab 100, 107, 108, 109 and 111. | tory. <br> counting coin number among coin inventory data remains in <br> t, coin changer detects coin rand high level sensor. Changer unt: <br> le under sensor mode, including |
| LCM | Descriptions |  |
| CashFloat Mode 119 | Press the Manual button. Use A / C to scroll to EZ code 119. Press F to enter. |  |
| Cash Float <br> "F" to Change | Changer displays current inventory counting mode. Press F to change inventory counting method. <br> Note! When counting method is changed to Cashfloat mode, the cashfloat setting is changed to maximum amount automatically. <br> When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description |
| :--- | :--- | :--- |
| $\mathbf{1 2 0}$ | Set ID | Set Customer \& Machine Number |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 121 Coin->CashBox Setting | Set Coin Acceptance to Cash Box Condition |  |
| Default | Definition |  |
| Same Coin Value | Setup conditions of coin acceptance to cash box. <br> Same Coin Value: After a coin accepted, check the accepted denomination total in changer. When changer can return the same denomination coins in the changer, the coin falls into cash box, otherwise it is rejected. <br> Total Coin Value: After a coin accepted, check total accepted value. When changer can return the value, the accepted coin falls into cash box, otherwise it is rejected. |  |
| LCM | Descriptions |  |
| Coin->CashBox <br> Setting 121 | Press the Manual button. Use A/C to scroll to EZ code 121. Press $F$ to enter. |  |
| Same Coin Value "F" to Change | Changer displays current setting. Press F to change setting. (Same Coin Value / Total Coin Value) When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 2 2}$ | Expansion Escrow Setting | Set Escrow for NTD 50 | This function only apply to NTD <br> Type Changer. |
| Default | Definition |  |  |
| OFF | Setup condition of 50NTD into escrow or cash box. <br> Escrow ON: 5NTD coin goes into cash box when changer can return from <br> cassette; otherwise 50NTD coin is returned. <br> Escrow OFF: 1st and 2nd 50NTD coins go into escrow, 3rd one is returned. |  |  |
| LCM | Descriptions |  |  |
| Expansion Escrow <br> Setting | Press the Manual button. <br> Use A / C to scroll to EZ code 122. <br> Press F to enter. |  |  |
| Escrow ON <br> "F" to Change Changer displays current escrow setting. <br> Press F to change escrow setting to ON or OFF. <br> When finished, press Manual button to exit. | Manual to exit. |  |  |

$\left.\begin{array}{|l|l|l|}\hline \text { Code } & \text { LCM Display } & \text { Function Description } \\ \hline \mathbf{1 2 3} & \begin{array}{l}\text { Sensor Inventory } \\ \text { Adjustment }\end{array} & \text { Detect Tube Inventory }\end{array} \begin{array}{l}\text { Uccessibility } \\ \hline \text { Uefault } \\ \text { Unavailable Model: 6100, Coin: EUR, RUR, } \\ \text { ROL, HUF }\end{array}\right]$

| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 2 4}$ | Reserved Coin | Set Reserved Coin Function |  |
| Default | Definition |  |  |
| ON | Setup reserved coin function to ON or OFF. <br> Reserved Coin ON: Changer will not pay out to last coin among operation, <br> specific number of coins will reserve inside tubes, around 4 coins. The <br> reserved coin number depends on different region. <br> Reserved Coin OFF: Changer pays out to last coin in tubes. <br> Descriptions |  |  |
| LCM | Press the Manual button. <br> Use A / t to scroll to EZ code 124. <br> Press F to enter. |  |  |
| Reserved Coin 124 | Changer displays current setting. <br> Press F to change reserved coin setting to ON or OFF. <br> When finished, press Manual button to exit. |  |  |
| "F" to Change | Manual to exit. |  |  |
| ON |  |  |  |



| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 126 Manual Inventory Adjustment | Refill Coin Inventory by inserting coins into tube cassette directly | NTD only |
| Default | Definition |  |
| N/A | Allow user to refill coins by inserting coins into tube cassette directly. The tube refill procedure is select code 126 , check refill amount on display, take out cassette, refill coins into cassette, put cassette back then push Enter to finish refill procedure. Please notice that changer do not count refilled coin amount, user need to put exact coin amount as requirement. The required coin amount may vary according to code 108 setting. |  |
| LCM | Descriptions |  |
| Manual Inventory <br> Adjustment 126 | Press the Manual button. <br> Use A / C to scroll to EZ code 126. Press F to enter. |  |
| $\begin{array}{ll} A=-- & B=-- \\ D=-- & E=-- \\ & F=-- \end{array}$ | LCM displays required refill amount of each tube. |  |
| $\begin{aligned} & \text { Saved? } \\ & D=N O \text {, } F=Y E S \end{aligned}$ | Make sure cassette has enough coins as required. <br> Press F to save. |  |
| Overwrite <br> Finished | The changer display finished message when setting has been overwritten successfully. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 2 7}$ | Residual Credit | Setup residual credit |  |
| Default | Definition |  |  |
|  | When the Coin Changer cannot return the coins completely, leave the surplus <br> credit in VMC or delete it. User allow to setup residual credit, vending sales <br> adjusted by Changer. Please notice that the function requires VMC support, <br> allow the residual credit to stay and further vend can be made. |  |  |
| LCM | Descriptions |  |  |
| Residual Credit | Press the Manual button. <br> Use A / C to scroll to EZ code 127. <br> Press F to enter. |  |  |
| Delete <br> "F" to Change |  |  | Changer displays current setting. <br> Press F to change reserved coin setting to Delete or Not Delete. <br> When finished, press Manual button to exit. |
|  |  |  |  |



| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 3 0}$ | Reject Lever Setting | Set no refund after inserting payment | 6100 M |
| Default | Definition     <br> LCM     <br> Reject Lever <br> Setting <br> ON: set vending machine to refund by pressing reject button <br> OFF: set vending machine to no refund.     <br> ON    Descriptions <br> Press the Manual button. <br> Use A / C to scroll to EZ code 130. <br> Press F to enter. <br> "F" Change     | Changer displays current setting. <br> Press F to change setting. (ON or OFF) <br> When finished, press Manual button to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: | :---: |
| 131 | Acceptance limit For Changer | Set Credit Acceptance Limit | 6100M KRW only |
| Default |  | Definition |  |
| 0 |  | When the total credit of coins and bills exceeds the acceptance limit (over the limitation amount), the Coin Changer \& Bill Accepter will be disabled. And the LCM of Coin Changer will show " Acceptance Limit Reached!" (When this option setting is " 0 ", there is no limit.) |  |
| LCM |  | Descriptions |  |
| Acceptance Limit For Changer 208 |  | Press the Manual button. Use A / C to scroll to EZ code 208. Press $F$ to enter. |  |
|  | ceptance Limit 0.0 <br> ceptance Limit ved | LCM displays current setting. Press B/E to plus/minus number. Press A/C to shift configured digit. <br> When finished, press F to save. |  |
|  |  | Manual to exit. |  |




### 3.5. Executive Setting Function Descriptions

| Code | LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: | :---: |
| 200 | Sell Mode | Set Single Vend or Multi Vend | Executive only |
| LCM |  | Descriptions |  |
| Single Vend |  | Setup condition of vending criteria to single vending mode or multi vending mode. <br> Single Vend: After a transaction is made, vending machine returns changes and closes the transaction. <br> Multi Vend: After a transaction is made, vending machine does not return change and the transaction stays open unless return lever is triggered. |  |
| LCM |  | Descriptions |  |
| Sell Mode 200 |  | Press the Manual button. Use A / C to scroll to EZ code 200. Press F to enter. |  |
| MODE: Single "F" to Change |  | Changer displays current setting. Press F to change setting. (Single or Multi) When finished, press Manual button to exit. |  |
|  |  | Manual to exit. |  |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 201 Price Display |  | Executive only |
| Default | Definition |  |
| Disable | Setup whether to display product price on VMC monitor or not. Disable: not to display product price Enable: display product price |  |
| LCM | Descriptions |  |
| Price Display $201$ | Press the Manual button. Use A/C to scroll to EZ code 201. Press F to enter. |  |
| MODE: Disable "F" to Change | LCM displays current setting. Press F to change setting. (Disable or Enable) When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 202 Product Price | Set Product Price Holding by Changer | Executive only |
| Default | Definition |  |
| N/A | Setup product price. The price is applied only when it is hold by changer. To set price holding mode, please refer to code 203. |  |
| LCM | Descriptions |  |
| Product Price $202$ | Press the Manual button. Use A / C to scroll to EZ code 202. Press $F$ to enter. |  |
| Channel: NO. 01 " F " to Change | Use B/E button to select channel. Press F to configure channel. |  |
| $\begin{aligned} & \text { Set Price } \\ & \$ 01.00 \end{aligned}$ <br> Set Price <br> Finished | LCM shows current price. <br> Press B / E to plus/minus number Press A / C to shift configured digit. When finished, press $\mathbf{F}$ to save. |  |
| Cash cashless <br> $\$ 02.00 \quad \$ 01.00$ <br> Set Price <br> Finished | When code 204 is set to Enable, the $2^{\text {nd }}$ bonus price in the right side can be set. <br> LCM shows current price. <br> Press B / E to plus/minus number. <br> Press A/C to shift configured digit. <br> When finished, press F to save. |  |
|  | Manual to exit. |  |


| Code | LCM Display | Function Description | Accessibility |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 3}$ | Price Holding | Set Price Holding by Changer or VMC | Executive only |
| Default | Definition |  |  |
| VMC | Setup whether the product price is hold by Changer or VMC. |  |  |
| LCM | Descriptions |  |  |
| Price Holding <br> 203 | Press the Manual button. <br> Use A / to scroll to EZ code 203. <br> Press F to enter. |  |  |
| MODE: VMC <br> "F" to Change | LCM displays current setting. <br> Press F to change setting. (VMC or Changer) <br> When finished, press Manual button to exit. |  |  |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 204 2nd Price For Cashless | Set 2nd price for cashless function on or off | Executive only |
| Default | Definition |  |
| Disable | Setup whether the $2^{\text {nd }}$ price for cashless function to on or off. |  |
| LCM | Descriptions |  |
| 2nd Price For Cashless 204 | Press the Manual button. Use A / C to scroll to EZ code 204. Press F to enter. |  |
| Enable "F" to Change | LCM displays current setting. Press F to change setting. (Enable or Disable) When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |


| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 205 Enable Bill Acceptor | Set BA enable with or without e-key | Executive only |
| Default | Definition |  |
| Always | Setup Bill Acceptor enable with or without e-key connection Always: BA always enable, requires no e-key connection. If card present: BA only enable under e-key connection. |  |
| LCM | Descriptions |  |
| Enable Bill <br> Acceptor 205 | Press the Manual button. Use A / C to scroll to EZ code 205. Press $F$ to enter. |  |
| Always "F" to Change | LCM displays current setting. Press F to change setting. (Always or If card present) When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |



| Code LCM Display | Function Description | Accessibility |
| :---: | :---: | :---: |
| 207 Residual Credit | Setup residual credit | Executive only |
| Default | Definition |  |
| Not Delete | When the Coin Changer cannot return the coins completely, leave the surplus credit in VMC or delete it. |  |
| LCM | Descriptions |  |
| Residual Credit 207 | Press the Manual button. Use A/C to scroll to EZ code 207. Press $F$ to enter. |  |
| Delete <br> "F" to Change | LCM displays current setting. Press F to change setting. (Delete or Not Delete) When finished, press Manual button to exit. |  |
|  | Manual to exit. |  |





| Code | LCM Display | Function Description |
| :--- | :--- | :--- |
| $\mathbf{2 1 1}$ | Exact Change Notice | Set exact change notice on display | Executive only | Default | Definition |
| :--- | :--- |
|  | When the Coin Changer may not return the coins completely, choose to <br> display exact change notice on VMC or not. <br> Active: Display depends on reserve coin setting (124). When reserve coin <br> sets to ON, the smallest three denominations amounts under 10 coins, <br> display shows "No Change." When reserve coin sets to OFF, the smallest <br> three denominations amounts under 6 coins, display shows "No Change." <br> Not Active: hide "No Change" message |
| LCM | Descriptions |
| Exact Change <br> Notice | Press the Manual button. <br> Use A / C to scroll to EZ code 211. <br> Press F to enter. |
| Not Active <br> "F" to Change | LCM displays current setting. <br> Press F to change setting. (Active or Not Active) |
|  | When finished, press Manual button to exit. |

### 3.6. DIP Switch Setting



| FUNCTION | SW1 | SW2 | SW3 | SW4 | SW5 | SW6 | SW7 | SW8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High anti-counterfeiting (1st coin value) | ON |  |  |  |  |  |  |  |
| High acceptance (1st coin value) | OFF |  |  |  |  |  |  |  |
| High anti-counterfeiting (2nd coin value) |  | ON |  |  |  |  |  |  |
| High acceptance (2nd coin value) |  | OFF |  |  |  |  |  |  |
| High anti-counterfeiting (3rd coin value) |  |  | ON |  |  |  |  |  |
| High acceptance (3rd coin value) |  |  | OFF |  |  |  |  |  |
| High anti-counterfeiting (4th coin value) |  |  |  | ON |  |  |  |  |
| High acceptance (4th coin value) |  |  |  | OFF |  |  |  |  |
| Reserved (MDB) |  |  |  |  | ON |  |  |  |
| Reserved (Executive) |  |  |  |  | OFF |  |  |  |
| Reserved |  |  |  |  |  | ON |  |  |
| Reserved |  |  |  |  |  | OFF |  |  |
| Calibration Mode |  |  |  |  |  |  | ON |  |
| Preset to OFF |  |  |  |  |  |  | OFF |  |
| Reserved (Turn off the sleep mode) |  |  |  |  |  |  |  | ON |
| Reserved (Turn on the sleep mode) |  |  |  |  |  |  |  | OFF |

Note:

- Acceptance rate setting, SW1 to SW4, is limited to some regions or denominations.

Please contact your local dealer for further information.

- For SW7 calibration mode instruction, please insert coin denominations in sequence displayed on LCM, or refer to installation guide for detailed information.
- Only some previous CC6100E model can apply to DIP SW5 function.
- Only some previous CC6100S model can apply to DIP SW8 function.


## 4. Harness Application

4.1.List of Main Wire Harness:

| Interface | Used Voltage | Description | Harness |
| :---: | :---: | :---: | :---: |
| JPSTD | 24 V DC | Power \& *Data Comm. 55cm | WEL-RCC24-T |
| JPSTD | 24 V DC | Power \& *Data Comm. 75 cm | WEL-RCC50-T |
| JPSTD | 24 V DC | Power \& *Data Comm. 95 cm | WEL-RCC49-T |
| MDB | 20-45V DC | Power \& *Data Comm. 57 cm | WEL-RCC23-T |
| MDB | 20-45V DC | Power \& *Data Comm. 77 cm | WEL-RCC51-T |
| MDB | 20-45V DC | Power \& *Data Comm. 97 cm | WEL-RCC47-T |
|  <br> MDB Peripheral | 24 V AC | Power \& *Data Comm. 57 cm | WEL-RCC53-B |
| Executive | 24 V AC | Power \& *Data Comm. 57cm | WEL-RCC54-B |
| - | - | Download Box Cable (Optional) | WEL-RCC42-T |

Warning!! Do not plug both MDB and Executive connecter to VMC board simultaneously!! It may cause damage of VMC board.

### 4.2. List of Wire Harness for ICT Bill Acceptor :

| Interface | ICT Bill Acceptor | Harness |
| :---: | :--- | :--- |
|  | NV Series | WEL-RCC31-T +WEL-RCC32-T |
|  |  | WEL-RCC48-T |
|  | MDB Bill Acceptor | WEL-RCC48-T +WEL-RCC46-T |
| MDB | NV Series | WEL-RCC67-T +WEL-RCC68-T |
|  | MDB Bill Acceptor | WEL-RCC48-T +WEL-RCC46-T |
|  |  | WEL-RCC67-T |

Please refer to Chapter 3-2 < Set the BA Interface > for setting instruction

### 4.3. Wire Harness Pin Assignment for JPSTD interface

《Main wire harness»

(Figure.12)

(Figure.13)

(Figure.14)

## «JPSTD wire harness for ICT Bill Acceptor»



(Figure.21)

### 4.4. Wire Harness Pin Assignment for MDB interface

《Main wire harness»

(Figure.15)


(Figure.17)
«MDB wire harness for ICT Bill Acceptor»

(Figure.21)

(Figure.23)

4.5. Wire Harness Pin Assignment for Executive \& MDB Interface



Warning!! Do not plug both MDB and Executive connector to VMC board simultaneously!! It may cause damage of VMC board.
4.6. Wire Harness Pin Assignment for Download Box

(Figure.18)
5. I/O Circuit
«JPSTD Interface»

(Figure.25)

《MDB Interface»

(Figure.25)

## 6. Maintenance

To ensure the coin changer operate correctly, following maintenance steps are required. ICT suggests cleaning every six month; however, under heavy usage conditions or locations the maintenance may need to be more frequent.

Warning: Before removing the coin changer, please make sure to turn the power off!



## 7. Troubleshooting

### 7.1. Error Code Messages

| Code | Cause | LED |
| :---: | :---: | :---: |
| E10 | LCM Panel Open | $5 \mathrm{red}+2$ red |
| E11 | Checksum Error | Red Light |
| E12 | Signal from the coin base was not received when the power was turned on. | Red Light |
| E13 | Two seconds after activation, the SYSTEM did not wait for the READY signal from the DEVICE and jumped to the exception. <br> Two seconds after a transaction, the SYSTEM did not wait for the READY signal triggered by the DEVICE. | 1 red |
| E14 | Coil 1 is damaged. | 3 red +1 red |
| E15 | Coil 2 is damaged. | 3 red +2 red |
| E16 | Coil 3 is damaged. | 3 red +3 red |
| E17 | Low level LED is damaged. | $3 \mathrm{red}+5 \mathrm{red}$ |
| E18 | Coin separator sensor problem. | $3 \mathrm{red}+4$ red |
| E19 | The deck is open for over 30 seconds. | 5 red +1 red |
| E20 | Both the first and second group motors cannot be positioned. | 7 red |
| E21 | The first motor group cannot be positioned. The first motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed. | None |
| E22 | The second motor group cannot be positioned. The second motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed. | None |
| E23 | Broke away or incorrectly positioned coin tubes. | 5 red |
| E24 | Coins got stuck at the coin separation area or the coin tube opening twice in a row, causing the HI Level Sensor to fail to detect the coin twice in a row. | 6 red +4 red |
| E25 | A Tube Low Level = empty, HI Level = full at setup. | None |
| E26 | B Tube Low Level = empty, HI Level = full at setup. | None |
| E27 | C Tube Low Level = empty, HI Level = full at setup. | None |
| E28 | D Tube Low Level = empty, HI Level = full at setup. | None |
| E29 | E Tube Low Level = empty, HI Level = full at setup. | None |
| E30 | F Tube Low Level = empty, HI Level = full at setup. | None |
| E31 | Barcode Reader error | None |
| E32 | The three sets of LEDs used to distinguish Coin size have been damaged. | None |
| None | The „Inhibit" signal transmitted by the interface. | 2 red |

### 7.2. Error Handling

## 《LCM Panel Open»

Code: E10
LED Light Display: 5 red 2 red
LCM Display: As shown in figure

> Sorting Module Door Open

Cause: LCM Panel Open

Corrective Measure: Close the LCM panel and verify that the latch is in place. If the problem cannot be solved, notify ICT personnel for support.


## «Checksum Error»

Code: E11
LED Light Display: Red light
LCM Display: As shown in figure below
Check Sum Error
E11

Cause: Check Sum Error.
Corrective Measure: Notify the ICT personnel for support.

## «Payout Mode Error»

Code: E12
LED Light Indicator: Red light
LCM Display: As shown in figure below

| Payout Module Error |
| ---: |
|  |

Cause: Signal from payout module was not received when power was turned on.

Corrective Method: Ensure that the signal wire is connected to the payout module.

## 《Communication Error»



Code: E13
LED Light Display: 1 red
LCM Display: As shown in figure

> No Communication
> with VMC E13

Cause:

1. Two seconds after activation, the SYSTEM did not wait for the READY signal from the DEVICE and jumped to the exception mode.
2. Two seconds after a transaction, the SYSTEM did not wait for the READY signal triggered by the DEVICE.

Corrective Measure:

1. Ensure that the machine interface and the VMC interface are consistent.
2. Ensure that the interface transmission wire is properly connected.


## 《\＃1 Coil Error»

Code：E14
LED Light Display： 3 red＋ 1 red
LCM Display：As shown in figure below

> Coil Error \#1

E14

Cause：Coil 1 is damaged．
Corrective Measure：Notify the ICT personnel

## 《\＃2 Coil Error»

Code：E15
LED Light Display： 3 red +2 red
LCM Display：As shown in figure below

> Coil Error \#2

E15

Cause：Coil 2 is damaged．
Corrective Measure：Notify the ICT personnel

## 《\＃3 Coil ERR»

Code：E16
LED Light Display： 3 red +3 red
LCM Display：As shown in figure below
Coil Error \＃3
E16

Cause：Coil 3 is damaged．
Corrective Measure：Notify the ICT personnel

## «Low Level LED Error»

Code：E17
LED Light Display： 3 red＋ 5 red
LCM Display：As shown in figure below

> Tube Detection Sensor Error

Cause：Low level LED is damaged．Otherwise，optical lens may be covered by dirt or dust．
Corrective Measure：When error is detected，changer retries once a minute for 10 times．It will stop if the problem is not resolved after 10 times retry．Clean the optical lens with soff fabric．If the problem cannot be solved， notify ICT personnel for support．

## «Sort Sensor Error»

Code: E18
LED Light Display: 3 red +4 red
LCM Display: As shown in figure below

```
Sorting Module
Sensor Error E18
```

Cause: Coin separator sensor problem.
Corrective Measure:

1. Make sure that the reflective prism is not dirty or blocked by foreign objects. If it is, remove the foreign object and clean the reflective prism.
2. Changer retries once a minute for 10 times when error is detected. It will stop if the problem is not resolved after 10 times retry.


## «Deck Open Problem»

Code: E19
LED Light Display: 5 red +1 red
LCM Display: As shown in figure below

$$
\begin{aligned}
& \text { Flight } \begin{array}{l}
\text { Deck } \\
\text { Error }
\end{array} \quad \text { E19 }
\end{aligned}
$$

## Cause:

1. The deck is open for over 30 seconds.
2. The reject bar has problem.


Corrective Measure:

1. Close the deck and reactive the power.
2. Retry once a minute for 10 times, if the problem is not resolved then remove the LCM panel to leave this exception and notify ICT personnel for support.


## 《Motor Error : A\&B》

Code: E20
LED Light Display: 7 red
LCM Display: As shown in figure below
Coin Jam
E20

Cause: Both the first and second group motors cannot be positioned.
Corrective Measure: Please see reference instructions for "E21" and "E22" below.

## 《Motor Error : A»

Code: E21
LED Light Display: None
LCM Display: As shown in figure below

Left Coin Jam

```
E21
```

Cause: The first motor group cannot be positioned. The first motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed.

(Figure.37)

Corrective Measure: 1. Confirm whether a foreign object has caused the semicircle disk to get stuck. If yes, remove the object and turn on the power again. Use buttons $\mathbf{A}$ and $\mathbf{B}$ of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to its normal operation.
2. Verify whether the semicircle disk has derailed. If yes, turn off the power and remove the washer, then reinstall the disk back onto the track and reactive the machine. Use buttons $\mathbf{A}$ and $\mathbf{B}$ of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to normal operation.

3. Turn on the power again and use buttons $\mathbf{A}$ and $\mathbf{B}$ of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to normal operation. If nothing happens, then the first motor group has been damaged. Please notify the ICT personnel to handle the problem.
4. Verify whether the openings of the $A$ and $B$ tube has been stuck by a coin. If a tube has been stuck, remove the stuck coin, reassemble the coin tube, and turn on the power again. Use buttons $\mathbf{A}$ and $\mathbf{B}$ of the LCM to test whether tubes $A$ and $B$ can discharge coins correctly. If it does, then the machine has returned to normal operation.


## 《Motor Error : B»

Code: E22
LED Light Display: None
LCM Display: As shown in figure

## Right Coin Jam

E22

Cause: The second motor group cannot be positioned. The second motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed.

(Figure.40)

Corrective Measure: 1. Confirm whether a foreign object has caused an obstruction. If yes, remove the object and turn on the power again and determine if the coin rod can return back to its position. Use buttons $\mathbf{C}, \mathbf{D}, \mathbf{E}$, and $\mathbf{F}$ of the LCM to test and determine whether the coin rod can hit the coin correctly.
If it does, then the machine has returned to normal operation.
2. Turn on the power again to observe whether the disk has repositioned itself. If it does not, then the second motor group is damaged. Please notify the ICT personnel for support.
3. Confirm whether the coin rod is stuck. If it is then manually move the rod back to its position. Turn on the power again and use buttons C, D, E, and F of the LCM to test whether the coin rod can hit the coin correctly.
If it does, then the machine has returned to normal operation.

(Figure.41)
4. Confirm whether C, D, E, and F tube outlets are stuck by coins. If yes, remove the coins and reinstall the tube cassette. Turn on the power again and use buttons C, D, E, and F of the LCM to test whether coins can be discharged correctly. If it does, then the machine has returned to normal operation.


## «Cassette Out»

Code: E23
LED Light Display: 5 red
LCM Display: As shown in figure
Inhibit
Cassette Out E23

Cause: Parts malfunction or coin tubes have been incorrectly positioned.

Corrective Measure: Ensure that the coin tubes are correctly positioned


## «Tube H/L Sensor Error»

Code: E24
LED Light Display: 6 red+ 4 red
LCM Display: As shown in figure

| Coin->Tube <br> Sensor Error | E24 |
| :--- | :--- |

Cause: Coins got stuck at the coin separation area or the coin tube opening twice in a row, causing the HI Level Sensor to fail to detect the coin twice in a row.


Corrective Measure:

1. Open the LCM panel to verify whether coins are stuck in the coin separation area. If yes, then push aside the transparent latch for the coin guiding board, remove the coin guiding board, remove the stuck coins, and then reinstall the coin guiding board. Turn on the power again. Insert each denomination to ensure that it enters the corresponding coin tube. If yes, then the problem has been resolved.

(Figure.45)
2. Ensure that the coin tubes have been positioned correctly.

Restart the power. Insert each denomination to ensure that it enters the corresponding coin tube. If yes, then the problem has been resolved.

(Figure.46)

## «Tube H/L Sensor Error : A»

Code: E25
LED Light Display: None
LCM Display: As shown in figure below
Tube A Sensor Error E25

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube.
Corrective Measure: Changer retries every 2 seconds during the standby mode.
Remove the stuck coin then restart changer to solve the problem.

## «Tube H/L Sensor Error : B»

Code: E26
LED Light Display: None
LCM Display: As shown in figure below

| Tube B Sensor <br> Error | E26 |
| :--- | ---: |

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube. Corrective Measure: Changer retries every 2 seconds during the standby mode. Remove the stuck coin then restart changer to solve the problem.

## «Tube H/L Sensor Error : C»

Code: E27
LED Light Display: None
LCM Display: As shown in figure below
Tube C Sensor
Error E27

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube.
Corrective Measure: Changer retries every 2 seconds during the standby mode.
Remove the stuck coin then restart changer to solve the problem.

## «Tube H/L Sensor Error : D»

Code: E28
LED Light Display: None
LCM Display: As shown in figure below

| Tube D Sensor |  |
| :--- | :--- |
| Error |  |

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube.
Corrective Measure: Changer retries every 2 seconds during the standby mode.
Remove the stuck coin then restart changer to solve the problem.

## «Tube H/L Sensor Error : E»

Code: E29
LED Light Display: None
LCM Display: As shown in figure below
Tube E Sensor Error E29

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube.
Corrective Measure: Changer retries every 2 seconds during the standby mode.
Remove the stuck coin then restart changer to solve the problem.

## «Tube H/L Sensor Error : F»

Code: E30
LED Light Display: None
LCM Display: As shown in figure below
Tube F Sensor
Error E30

Cause: Low Level = empty, Hi Level = full. Coin might be sorted to wrong tube.
Corrective Measure: Changer retries every 2 seconds during the standby mode.
Remove the stuck coin then restart changer to solve the problem.

## 《Barcode Reader Error»

Code: E31
LED Light Display: None
LCM Display: As shown in figure below. The machine will continue to work.

| BarCode Sensor <br> Error | E31 |
| :--- | :--- |

Cause: Barcode Reader error.
Corrective Measure: Ensure that the Barcode Reader is not dirty or blocked by foreign objects. If yes, then clean the Barcode Reader or remove the obstruction.

Caution: The machine would continue to work despite the Barcode Reader error.


## «Coin Size LED Error»

Code: E32
LED Light Display: None
LCM Display: As shown in figure. The machine will continue to work.

| Diameter Sensor |  |
| :--- | :--- |
| Error | E32 |

Cause: The three sets of LEDs used to distinguish Coin size have been damaged.
Corrective Measure: Open the deck. Ensure that the Sensor and LED are not dirty or blocked by foreign objects. If they are, then clean the Sensor and LED or remove the obstruction. If the problem cannot be solved, notify ICT personnel for support.


## 《Inhibit By VMC»

Code: None
LED Light Display: 2 red
LCM Display: As shown in figure below

| Inhibit by <br> VMC |
| :---: |

Cause: The "Inhibit" signal transmitted by the interface.
Corrective Measure: None.

## 8. Firmware Download and Upgrade Instruction

Statement: This document is established and written purely for the convenience of the customers. The document does not clearly specify the legal responsibilities assumed by the International Currency Technologies (ICT) Corp. The ICT Corp.
reserves all rights to the original records of legal writings and intellectual properties, including subsequent modifications of the figures and updates of the texts.

This Document is only Applicable to the Corresponding Coin Changer Products

This document provides detailed downloading and burning steps as follows:

### 8.1. MCU STM32 Firmware Download by FP-004

### 8.1.1. Tools

Please prepare download box and related wire accessories ready

1. Tool Kit Box: FP-004 x 1pc
2. Cable-wires:
\#WEL-RF303 x 1pc
\#WEL-RCC42 x 1 pc

### 8.1.2. Connection

Coin Changer


### 8.1.3. Start Download Process:

1. Please ensure that the RS232 connection from PC to FP-004 works properly; if not, check whether RS-232 program and driver has been activated.
2. Click and execute FP4DT.exe


FP4DT
3. Select Coin Changer, STM8, type of FP004 download box, RS232 COM port, and specify the path for file download (only accept files with .s19 extensions).

4. Select "Download"
5. Download provides two options, direct download to the Coin Changer, or download and burn to the FP-004 control box.


6．Select the download option then the process would execute automatically （The left－bottom corner of the screen shows the communication status）
Download About
Coin Changer $\quad$ Coin Changer（STM32）$\quad$ COM1 $\rightarrow$
D：\}office work\公用秶料夾\随你丢\CoinChanger\CCV6\}程式\}最新覑 Load File

| Ster Procedure | Status |
| :---: | :---: |
| 3 Load File | 100\％ |
| Of Enter Download Mode | 0\％ |
| Erase Proaram memorv | 0\％ |
| Write Proaram memonv | 0\％ |
| \％Verify Proaram memory | 0\％ |
| \％RESET | 0\％ |

COM1 Status Message

Figure． 68

7．Download Completed，all procedures reach 100\％．


### 8.2. MCU STM32 Firmware Download by IrDA Special Function

### 8.2.1. Tools

Please prepare related accessories ready

1. PDA supports IrDA download

### 8.2.2. Connection

Please keep distance between changer and PDA within 5 cm , angle deviation less than 5 degree.


### 8.2.3. Start Download Process:

1. Turn on power and prepare changer in standby status.
2. Start download procedure of PDA to update firmware.

## 9. PC Tool Instruction

To setup Changer through PC Tool, please prepare tools and connection as following chapter instruction:

Chapter 8-1-1. Tools
Chapter 8-1-2. Connection
This document provides detailed PC setup steps as follows:

### 9.1. Cashfloat Setting

### 9.1.1. Set Changer to Initial Setting

1. Open PC Tool. Select "Cashfloat Setting" function item.
2. Select changer Type.
```
6100M ¢6100S C 6100E Select Your Changer Type!!
```

3. Select tube setting from the list then PC tool will display the setting.

4. Click "Write Initial Setting" button to start download process.
5. To confirm whether the changer has been correctly setup, click "Read Setting From CC" to load changer setting and display on PC tool for confirmation.

| - 6100M $\subset 61005 \subset 6100 \mathrm{E}$ |
| :--- |
| Write Initial Setting |
| 2.EUR-M27 can use the following Option to modify your changer !! |

### 9.1.2. Set Changer to Customization Setting

1. Open PC Tool. Select "Cashfloat Setting" function item.
2. Select Changer Type.
3. Select tube setting from the list then PC tool will display the setting.
4. Modify the settings to customization configuration.

The setting items may vary depends on different region.

5. Click "Set Coin Changer" button to start download process.
6. To check whether the changer has been correctly setup, click "Read Setting From CC" to load changer setting and display on PC tool for confirmation.

### 9.1.3. Set Coin Channels Executive only

1. Open PC Tool. Select "Cashfloat Setting" function item.
2. Select Changer Type.

Channel setting function only applies to 6100E type.

3. Select tube setting from the list then PC tool will display the setting. Click "Read Setting From CC" to load current changer channel setting for editing. Channel setting list in the right bottom area for editing.
For price channel position, please see listed sequence as figure below.
Notice! Every block need to be filled price in before set to changer. If channel price is 0 , input 0 to blocks.

4. After filling channel price into list, click "Set Coin Changer" to save setting to changer.

### 9.1.4. Setup File Management

## Import Setting File

1. Click "Import Setting File" to load setup file, a file selection window shows up.
2. Choose setup file in .ini format and click open to load.
3. PC Tool displays setting of the imported file.

User can then click "Set Coin Changer" to download or made setup modification.


## Save Setting File

1. Choose setting options to customized configuration for saving.
2. Click "Save Setting File" to save a setup file, a file saving window shows up.
3. Choose file path and input file name, and then click save to complete saving. Setup file will be saved as an .ini file.


### 9.2. Serial Number Setting

### 9.2.1. Set Serial Number

1. Open PC Tool. Select "Serial Number" function item.
2. To set serial number, Input serial number in blocks. The serial number in blocks will be setting into changer.
Then click "Write" button to set serial number to changer.
"Setting Finish!" message shows up after setting finished. Click "OK" to close the message.

3. To check serial number of the changer, click "Read" button to load.

Serial number will display in blocks.
Before loading further serial number, click "Clear label" button to clear numbers in blocks.

## Machine Number[12]

123456778899
123456
778899


Notice:
Customer Number contains 16 digits and each digit applies to 0-9.
Machine Number contains 12 digits and each digit applies to $0-9$ or $\mathrm{A}-\mathrm{Z}$.

## 10. Read Audit Data

This document provides detailed audit data read out steps as following methods:
Read audit data by ICT MTB
Read audit data by IrDA

### 10.1. Read Audit Data by ICT MTB

### 10.1.1. Tools

Please prepare download box and related wire accessories ready

1. Tool Kit Box: MTB x 1pc
2. Cable-wires:
\#WEL-RSB04 x 1 pc
10.1.2. Connection


### 10.1.3. Start Read Audit Data by MTB

1. Prepare connection above and set changer in standby status for data read out.
2. Turn on MTB power and enter "Changer Operate" mode.
3. Select "Read Audit Data" to execute read out process, the eva audit data will be saved to SD card of MTB.
Then MTB request whether to clear audit data in changer? Choose Yes/No to determine whether to clear audit data in changer.
4. Turn off MTB power before disconnection from MTB to Changer. Remove SD card from MTB to read out .eva file from PC.
*For detail MTB Instruction, please refer to MTB Manual.

### 10.2. Read Audit Data by IrDA

To read audit data by IrDA, please prepare tools and connection as following chapter instruction:
Chapter 8-2-1. Tools
Chapter 8-2-2. Connection

1. Prepare connection above and set changer in standby status for data read out.
2. Use PDA IrDA component to point directly to the IrDA of changer.
3. Start audit data transmission. A file format in .eva will be saved to PDA.

Notice! If audit data has been successfully read out, the audit data in changer would be automatically cleared, but not include serial numbers.

## 11. Module Assembling Procedure

11.1. Upper Module Disassembling:

1. Press down the shell stabilization leaver until the fixed axis is fully exposed.

(Figure.57)
2. Pull and rotate the upper half of the module forward.
3. After the upper half of the module is pulled out, unplug the soft gray cable, and then lift upward at a 35 degree angle until the end.
4. Pull the upper half of the module out of the shell.


### 11.2. Recognition Module Disassembling:

1. Turn the upper half of the module towards the back and ensure that the two fix points of the modules are flipped to the two sides.

(Figure.60)
2. Pull out the recognition module.

3. Unplug the wire connecting to the identification module.

(Figure.62)
4. Pull and remove the recognition module.


### 11.3. Coin Discharge Module Disassembling:

1. Remove the two screws on the sides of the coin discharge module.

(Figure.64)
2. Rotate the coin discharge module downward 90 degrees.

3. Unplug the wire connecting to the coin discharge module.

(Figure. 66)
4. Pull and remove the coin discharge module.

(Figure.67)

## 12. Module Exploded Views



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[^0]:    ${ }^{1}$ In some models interface is selected by DIP Switch or automatically.

