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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

MDB: 10V DC ~ 45V DC (Battery Mode)

JPSTD: 24V DC ±10%

Executive: 24V AC ±10%

Power Consumption Standby mode \leq 3.6W

Coin acceptance \leq 15.6W Coin payout \leq 15.6W

(36W max. when Power is turned on initially)

Battery operation (Power Saving Type)

Sleep mode ≤ 10uA

Standby mode \leq 3.6W(wake-up mode)

Temperature Range $-15^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Storage Temperature $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$ Temperature Change Max. 0.2°C / minute

Relative Humidity Up to 85% (no condensation)

Serial Interface Serial MDB (connector: Minifit 6-pin)

Serial JPSTD

Serial Executive (connector: Molex 15-pin &

9-pin)

*Exe. select interface through DIP Switch

Peripherals MDB Bill Acceptor (for MDB & Executive interface)

MDB cashless key reader (for Executive

interface only)

ICT MTB (Multi Tool Box)

Display

Menu language: English

Acceptable Coin Size Coin diameter 16mm ~ 28mm

Coin Thickness 1.2mm ~ 2.6mm

Acceptance Speed Approx. 1 coin / second

Coin payout Max. 6 coin types from a tube cassette

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

	TUBE					
Coin Diameter mm	Α	В	С	D	Е	F
26.0 - 28.5	٧,*	٧,*	-	-	-	-
24.0 - 26.0	٧,*	٧,*	٧	V	V	V
22.0 - 24.0	٧,*	٧	٧	V	V	V
20.0 - 22.0	V	٧	٧	V	V	V
18.0 - 20.0	V	٧	٧	V	V	V
16.0 - 18.0	V	٧	٧	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)

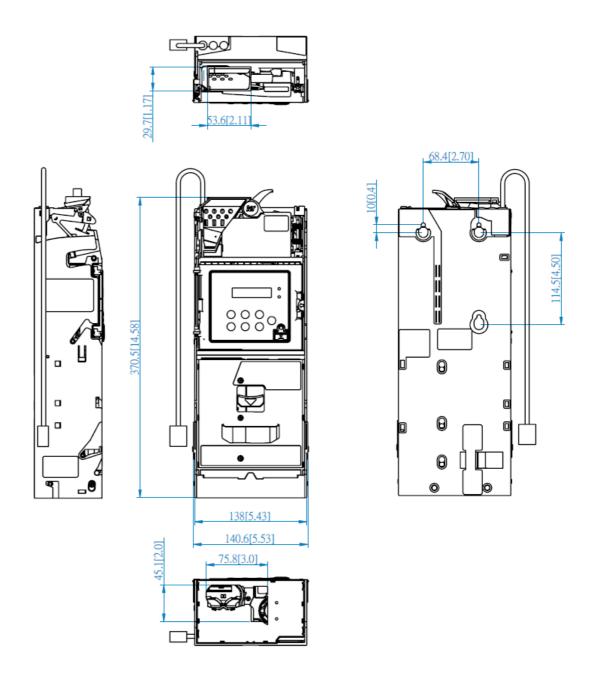
MDB-FTL (only for MDB Interface)

Customer & Product Serial Number Setting

99 coin channels

Colored diagnostic LEDs

1-3 Dimensions

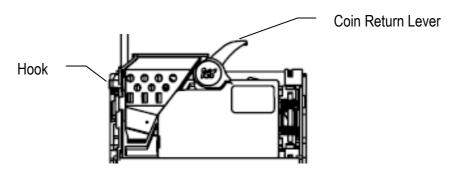


Unit: mm

Mounting position: Mark of conformity: Vertical, max. deviation: $\pm 3^{\circ}$ CE

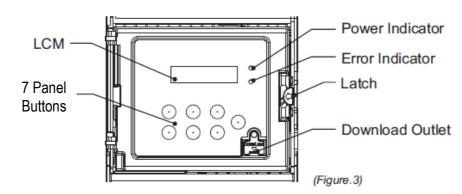
1-4. Module Descriptions

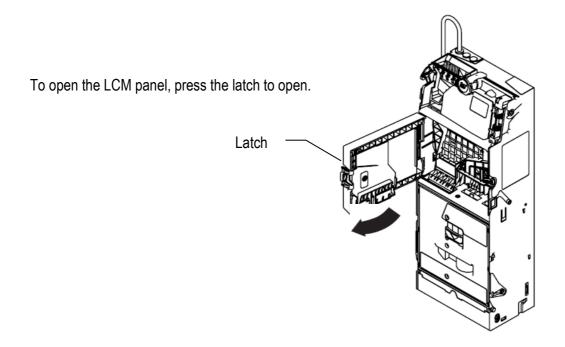
《Recognition》: As shown in figure below



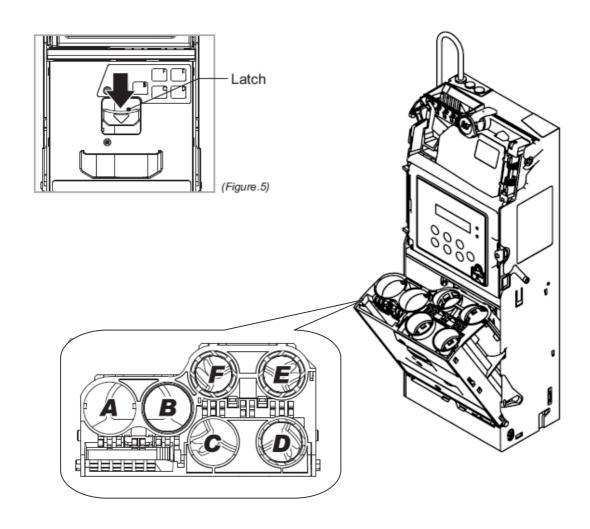
 $\langle\!\langle \text{Coin Return Lever} \rangle\!\rangle$: After a coin is inserted, press the coin return button to return the coin

$\langle\!\langle LCM \ Panel \rangle\!\rangle$: As shown in figure below





 $\langle\!\langle \text{Coin Tubes} \rangle\!\rangle$: Press the latch as shown below to remove the coin cassette



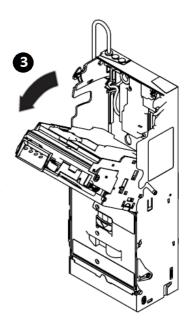
2. Installation

2-1 Device Installation Instructions

- 1. Prior to installation, remove the coin changer from the carton and inspect for damages.
- 2. Turn off the power of the vending machine IMPORTANT!!!

Warning!! Do not plug both MDB and Executive connecter on VMC board in the same time!! It may cause damage of VMC board.

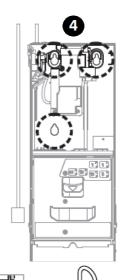
3. Press the green hook at the left side of the coin changer and tilt the upper module.



- 4. Loosen the 3 mounting screws 2 or 3 turns. (do not unscrew these completely)
 Lift the coin changer to mount inside the vending machine.
- 5. Tighten the screws and place the upper module back into the device.

- 6. Press the green coin tube fixed latch to pull out the coin tube cassette at an upwardly slanted angle.
- 7. Fill coins into coin tube cassette and ensure that the coins enter the corresponding tubes and flatly placed. Then install the coin tube cassette into the Coin Changer.

* You can also choose coin refill mode to fill coins without open coin tube cassette. (Refer to Chapter 3-2 <Coin Refill Function>)



(Figure.8)

《Installation Checklist》

the coin return box of the vending machine.

	□ Check that there is a 3 to 5 mm gap between the coin changer return lever and the vending machine coin return mechanism.
	□ Check that when the vending machine coin 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》
	□ Check the amount of coins in each coin tube is above the minimum requirement level. Please refer to sticker on the coin tube cassette for minimum level information. (The coin changer would not work correctly without enough coins in the coin tubes.) After the user has filled the coins, the coin changer will detect the adequate coin quantity within a few seconds.
	□ User should dispense at least 1 coin from each coin tube to ensure that the dispensed coins fall into

3. Operation

3-1. Operational Instructions

3-1-1. EZ code overview

Code	LCM Display	Function Description	
100	Refill Coin	Coin Refill Function by Coin Insertion under Cash Flow Mode	Accessible without password Cash Flow Mode only
101	Total In/Out	Check the Total Coin PayIn and PayOut Value Counter	Accessible without password
102	Reset Records	Clear the Total Coin PayIn and PayOut Value Record	
103	Accept/Reject Coin Switch	Set Accept or Reject to Coin Denominations	
104	Tube Open/Close Switch	Set Open or Close to Coin Tubes	
107	Configure Cash Flow	Set Cash Flow Configuration for Various Coin Denominations	Cash Flow Mode only
108	Activate Cash Flow	Set Cash Flow Type for Various Coin Denominations	Cash Flow Mode only
109	Check Current Cash Float	Check Current Cash Flow of Various Coin Denominations	Cash Flow Mode only
110	Change Mgmt.	Set the Change Return Mode	JPSTD only
111	Display Method	Set the Standby LCM Display Mode	Cash Flow Mode only
112	BA Type Setting	Set the BA Interface	
113	Default Setting	Restore to Default Factory Settings	
115	Clear Tube Count	Clear Counting Memory of All Coin Tube Inventory	Accessible without password Special Function
116	116 Tube Set Coin Tube Configuration Mode		Special Function
117	Error Info	or Info Display Error Message Records	
118	Bill(s) per Transaction	Set the Bill Acceptance Limitation for the BA	ICT BA only
119	CashFlow Mode	Set Coin Tube Inventory Counting Mode	
120	Set ID	Set Customer & Machine Number	Special Function
121	121 Coin->CashBox Setting Set Coin Acceptance to Cash Box Condition		
122	22 Expansion Escrow Setting Set Escrow for NTD 50		Only for NTD
123			
1 1		Set Reserved Coin Function	Special Function
125	125 Door-Switch Setting Set LCM accessibility under door-switch status and password security		
200	200 Sell Mode Set Single Vend or Multi Vend		Executive only
201	Price Display Set Price Display on VMC		Executive only
202	202 Product Price Set Product Price Holding by Changer		Executive only
203	203 Price Holding Set Price Holding by Changer or V		Executive only
204	204 2 nd Price for Cashless Set 2 nd price for cashless function on or off		Executive only
205	D5 Enable Bill Acceptance Set BA enable with or without e-key		

Without password authorization user can only access following operational functions:

- Code 100
- Code 101
- Code 115

Press "D" 3 times to open password input page. With password verification user can access all functions.

3-1-2. «Dispensing Coins To Low Level»



(Figure.10)

Dispensing coins to low level in all coin tubes

* Press the coin return lever together with manual button for 3 seconds to discharge coins to one under minimum coin level of all coin tubes.

(If the minimum coin number is not configuring by the user, the default minimum coin level would be used.)

Dispensing coins to low level in a specific tube

- * Single press of lettered panel buttons will dispense 1 coin from corresponding tube.
- * Press the Coin Return and specific tube button together for 3 seconds, then the selected tube would discharge coins until it gets to one under low level amount.

3-1-3. «Coin Refill Function by Coin Insertion under Cash Flow Mode»

Code: 100

Definition: Enter coin refilling mode to fill up to cash flow level of each coin

tube. **Cash flow level depends on code 108 setting (see 3-2-3)

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 100.

3. Press Enter to enter the coin filling mode.

Begin to insert coins to coin changer.

(The LCM display will show required amount of each denomination in sequence from small to large value, as following figure A to F. The displayed amount decreases when refilling coin. The required denomination amount will disappear once the coins reach cash flow level.)

In example of EU 6 denominations, the following A to F represent required amount of 5cent, 10cent, 20cent, 50cent, $1 \in A$ and $A \in A$ an

Require amount

Number disappears when tube reached cash flow level amount

5. When finished, press Manual button to exit.

Caution!! Please empty the coin tubes before refilling coins, and do not repeatedly enter the refill mode while refilling the coins.

3-1-4. «Check the Total Coin PayIn and PayOut and Value Counter»

Code: 101

Definition: Display current Bookkeeping data. Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 101.

Total In/Out 101

3. Press Enter to the total amount display.

PayIn: \$0 PayOut: \$0

4. Use B/E bottom to scroll through Pay in amount, Pay out amount, and difference. (IN>OUT display "+", OUT>IN display "-")

Difference: \$0

- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-1-5. «Clear the Total Coin PayIn and PayOut Value Record»

Code: 102

Definition: Reset bookkeeping data.

Steps:

- Press Manual button to enter configuration mode.
 Use A/C button to scroll to EZ code 102.

Reset Records 102

3. Press Enter to reset data.

Check Current Are You Sure?

4. Press Enter again to confirm.

*The changer will display message once data has been erased successfully, and go back to main configuration screen.

> Data has been erased

5. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2. Operational Settings

3-2-1. «Set Accept or Reject to Coin Denominations»

Code: 103

Definition: On/off switch for different coin value.

Steps:

- 1. Press Manual button to enter configuration mode.
- 2 Use A/C button to scroll to FZ code 103

Accept/Reject Coin Switch 103

3. Press Enter to enter coin value select mode.

EUR \$0.05 : Accept Enter to Change

- 4. Use B/E button to scroll through coin values.
- 5. Press Enter to change the coin value setting. (On to Off / Off to On)
- 6. When finished, press Manual button to exit.
- 7. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

3-2-2. «Set Open or Close to Coin Tubes»

Code: 104

Definition: On/off switch for Tube A, B, C, D, E, and F.

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 104.

Tube Open/Close Switch 104

3. Press Enter to enter tube select mode.

TUBE A ON Enter to Change

- 4. Use B/E button to scroll through tubes.
- 5. Press Enter to change tube setting. (On to Off / Off to On)
- 6. When finished, press Manual button to exit.
- 7. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-3. «Set Cash Flow Configuration for Various Coin Denominations»

Code: 107

Definition: Configure cash flow level quantity of each coin value. Coin Changer can save up to 3 types of cash flow setting.

₩When coins reach defined cash flow level amount, the

overflow coins will enter changer's cash box.

Factory Default: maximum level of each tube

Available Configurable Amount: A coin value's maximum level depends on the maximum level of tube multiple tube number.

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 107.

Configure Cash Flow 107

3. Press Enter to type selection mode. Type A, B or C.

Туре А

- 4. Use B/E button to scroll through cash flow types.
- 5. Press Enter to adjust selected cash flow type.

EUR \$ 0.05 Level TO CB 70

- 6. Use B/E button to scroll through the coin values.
- 7. Press Enter to adjust quantity.

Change Set Q'TY 55

- 8. Use B/E button to plus or minus 1 to adjust quantity.
 Use A/C button to plus or minus 10 to adjust quantity.
 Press Enter to confirm setting, then display will back to coin value selection mode to continue other value amount setting.
- *The page below would appear after each save. If this page does not appear, that means the settings were not saved, and please reconfirm and press the "Enter" button to save the settings.

Saved		

9. Press Manual button to save coin type configuration of all coin values. Changer will inquire whether to apply the coin type configuration or not?

IS Save Settnig? D=NO , F=YES

- Press "F=YES" to apply immediately, or "D=NO" button to save type configuration only.
 After selecting yes or no, display will back to coin type selection mode to continue other type setting.
- 11. When finished, press Manual button to exit.
- 12. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-4. «Set Cash Flow Type for Various Coin Denominations »

Code: 108

Definition: Configure Type of cash flow for various coin denominations to be activated.

- Steps:

 1. Press Manual button to enter configuration mode.

 2. Use A/C button to scroll to EZ code 108.

Activate Cash Flow 108

- 3. Press Enter to enter type select mode.
- 4. Use B/E button to scroll through types. (Type A, B or C)

TYPE A

5. Press Enter button to save type selection. The display will go back to the configuration mode.

> Overwrite Finish

6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-5. «Check Current Cash Flow of Various Coin Denominations»

Code: 109

Definition: Check current cash flow setting of various coin denominations.

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 109.

Check Current Cash Float 109

3. Press Enter to enter information acquiring mode.

\$0.05 Cash Flow 070

- 4. Use B/E button to scroll through each coin value's cash flow configuration.
- 5. When finished, press Manual button to exit.
 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-6. «Set the Change Return Mode»

Code: 110

Definition: Return the original coin value / Return from the largest coin value.

Note: This function only works with the JPSTD interface

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 110.

Change Mgmt. 110

3. Press Enter to coin management setting mode.

Large Coins Enter to Change

- 4. Press Enter to change its current setting. (Large Coins/Org. Coin Value)
- 5. When finished, press Manual button to exit.6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-7. «Set the Standby LCM Display Mode»

Code: 111

Definition: Change coin changer's LCM display in standby status.

Steps:
1. Press Manual button to enter configuration mode.
2. Use A/C button to scroll to EZ code 111.

Display Method 111

3. Press Enter to display method configuration mode.

Q'TY of Tube Enter to Change

- 4. Press Enter again to change display method.
 (Q'TY of Tube/Total Coin Value)
 5. When finished, press Manual button to exit.
 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-8. «Set the BA Interface» **Special Function**

Code: 112

Definition: Select type of BA connected.
(Only work on ICT Bill Acceptor connect to Coin Changer)
Note: This is a special function. The Coin Changer must lap joint with the ICT Bill Acceptor for this function to work. Steps:

1. Press Manual button to enter configuration mode.
2. Use A/C button to scroll to EZ code 112.

BA Type Setting 112

3. Press Enter to select BA Type.

BA: JPSTD Enter to Change

- 4. Press Enter again to change BA type setting. (JPSTD/JPSTD with escrow/MDB/MDB with escrow)
- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-9. «Restore to Default Factory Settings»

Code: 113

Definition: Restore factory default setting. Example: cash flow...etc. Cash flow setting will be reset to low level of each denomination. Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 113.

Default Setting 113

3. Press Enter to restore factory setting mode.

Default Setting Are You Sure?

- 4. Press Enter to confirm restored to factory default.
- 5. When finished, press Manual button to exit.
 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-10. «Clear Counting Memory of All Coin Tube Inventory» Special Function

Code: 115

Definition: Clear tube inventory counter's memory.

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 115.

Clear Tube Count 115

3. Press Enter to reset the memory database.

Clear Tube Count Are You Sure?

4. The changer will display message once data has been erased successfully, and go back to main configuration screen.

Clear Tube Count Clear Finish

5. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

Caution!! Please empty the coin tubes before clear memory. Leave coins inside tube cassette may cause operational problem to changer.

3-2-11. «Coin Tube Configuration Mode» Special Function

Code: 116

Definition: Configure the tube coin assignment without change the firmware Steps:

- 1. Press Manual button to enter configuration mode. 2. Use A/C button to scroll to EZ code 116.

Tube Set 116

3. Press Enter to configure different tube assignment.

Tube: Mode 01

- 4. Use B/E button to scroll through different selections. (Please ask your dealer or sales for the tube assignment availability.)
- 5. Press Enter to confirm tube coin assignment.

Setting Finish

- 6. When finished, press Manual button to exit.7. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-12. «Display Error Message Records»

Code: 117

Definition: Display coin changer's last one error issue occurred during operation. Coin Changer keeps last record of error message even after the error has been solved.

- Press Manual button to enter configuration mode.
 Use A/C button to scroll to EZ code 117.

Error Info 117

3. Press Enter to display error message if any. Error message including 'Sort_Error', 'TubeSensor_Error' or 'Motor_Error'



- 4. When finished, press Manual button to exit.5. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-13. «Set the Bill Acceptance Limitation for the BA» Special Function

Code: 118

Definition: Configure limited number of bills accepted per transaction. (Only works on ICT Bill

Acceptor connect directly to the Coin Changer)

Note: This is a special function. The Coin Changer must be equipped with the ICT Bill

Acceptor for this function to work.
Factory Default: 1

Available Configure Range: 1 to 9

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 118.

Bill(s) per Transaction 118

3. Press Enter to number configuration mode.

Bill Counts 1 PCS

4. Use B/E button to change limitation number.

The page below would appear after each save. If this page does not appear, that means the settings were not saved, and please retry the "Enter" button to save the settings.

Setting Finish

- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-14. «Set Coin Tube Inventory Counting Mode»

Code: 119

Definition: Select counting method to coin tube inventory.

<u>Cashflow Mode:</u> Coin Changer system keeps counting coin number among tubes. Even after reboot or power reset, coin inventory data remains in memory.

<u>Sensor Mode:</u> After reboot or power reset, coin changer detects coin inventory in tubes through low level sensor and high level sensor. Changer displays "N", "L" or "H" under the following situation:

N – Tube empty

L - Coins reach low level amount

H – Coins reach high level amount

Some operational functions are not accessible under sensor mode, including 100, 107, 108, 109 and 111.

Default Mode: Cashflow, default amount is the maximum level of each tube. Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 119.

3. Press Enter to inventory counting method configuration mode.

CashFlow Enter to Change

4. Press Enter again to change inventory counting method.

Setting Finish

- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-15. «Set Customer & Machine Number» Special Function

Code: 120

Definition: Configure Customer & Machine Number of Coin Changer

Available Configure Range:

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 A – Z.

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 120.

Set ID 120

3. Press Enter to ID configuration mode.

Set ID Machine Number

Set ID Customer Number

4. Use B/E button to scroll through Customer Number or Machine Number. Press Enter to set the ID.

Machine Number 123456789123

Customer Number 1234567891230000

5. Under Machine Number setting mode, press B/E to plus/minus number, press A/C to shift configured digit. When finished, press Enter to save.

Under Customer Number setting mode, press B/E to plus/minus number or alphabetic, press A/C to shift configured digit. When finished, press Enter to save.

Customer Number Finish

- 6. When finished, press Manual button to exit.
- 7. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-16. «Set Coin Acceptance to Cash Box Condition»

Code: 121

Definition: Setup condition of coin acceptance to cash box.

<u>Same Coin Value:</u> After a coin accepted, check this accepted denomination total. When it can be returned by same denomination value among the changer, the coin goes to cash box, otherwise it is rejected.

<u>Total Coin Value:</u> After a coin accepted, check accepted value total. When it can be returned by total value among the changer, the coin goes to cash box, otherwise it is rejected.

Default Mode: W/Equal Value

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 121.

Coin->CashBox Setting 121

3. Press Enter to coin acceptance configuration mode.

Same Coin Value Enter to Change

- 4. Press Enter again to change coin acceptance condition.
- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-17. «Set Escrow for NTD 50» Special Function

Code: 122

Definition: Setup condition of 50NTD into escrow or cash box.

Escrow ON: 50NTD coin goes into cash box when changer can return from cassette; otherwise 50NTD coin is returned.

Escrow OFF: 1st and 2nd 50NTD coins go into escrow, 3rd one is returned. This function only apply to NTD Type Changer.

Default Mode: OFF

Steps:

1. Press Manual button to enter configuration mode.

2. Use A/C button to scroll to EZ code 122.

Expansion Escrow Setting 122

3. Press Enter to escrow configuration mode.

Escrow OFF Enter to Change

- 4. Press Enter again to change escrow condition.
- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-18. «Detect Tube Inventory»

Code: 123

Definition: Detect tube inventory and overwrite tube count data.

Default Mode: N/A

- Press Manual button to enter configuration mode.
 Use A/C button to scroll to EZ code 123.

Coin Inventory Adjustment 123

3. Press Enter to read the coin inventory.

Read TubeCount? D=NO F=YES

4. The changer will display message once tube count has been overwritten successfully, and go back to main configuration screen.

> **Overwrite** Finish

5. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-19. «Set Reserved Coin Function» Special Function

Code: 124

Definition: Setup reserved coin function to ON or OFF.

Reserved Coin ON: Changer will not pay out to last coin among operation, specific number of coins will reserve inside tubes, around 4 coins. The reserved coin number depends on different region.
Reserved Coin OFF: Changer pays out to last coin in tubes.

This function only applies to specific type of Changer.

Default: ON

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 124.

Reserved Coin Setting 124

3. Press Enter to set reserved coin function.

OFF Enter to Change

- 4. Press Enter again to change reserved function. (ON/OFF)
- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-20. « Set LCM accessibility under door-switch status and password security »

Code: 125

Definition: Setup LCM accessibility under door-switch status and setup password security.

Door-ON: LCM inaccessible under door closing Door-OFF: LCM accessible under door closing PW-ON: Require password to access all LCM function PW-OFF: Require no password to access all LCM function

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 125.

Door-Switch Setting 125

3. Press Enter to setup. Then press B/E button to select desired setting.

Door-OFF PW-ON

4. Press Enter to finish setting, screen back to previous page.

Setting Finish

- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-21. «Set Single Vend or Multi Vend» Executive only

Code: 200

Definition: Setup condition of vending criteria to single vending mode or multi vending mode. Single Vend: After a transaction is made, vending machine returns changes and closes the transaction.

Multi Vend: After a transaction is made, vending machine does not return change and the transaction stays open unless return lever is triggered.

Default Mode: Single Vend

Steps:

- 1. Press Manual button to enter configuration mode. 2. Use A/C button to scroll to EZ code 200.

Sell Mode 200

3. Press Enter to configure sell mode.

MODE: Single Enter to Change

- 4. Press Enter again to change sell mode condition. (Single/Multi)
- 5. When finished, press Manual button to exit.
- 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-22. «Set Price Display on VMC» Executive only

Code: 201

Definition: Setup whether to display product price on VMC monitor or not.

Default Mode: Disable

Steps:

Press Manual button to enter configuration mode.
 Use A/C button to scroll to EZ code 201.

Price Display Mode 201

3. Press Enter to configure price display mode.

Disable MODE: Enter to Change

- 4. Press Enter again to change display mode condition. (Disable/Enable)
 5. When finished, press Manual button to exit.
 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-23. «Set Product Price Holding by Changer» Executive only

Code: 202

Definition: Setup product price. The price is applied only when it is hold by changer. To set price holding mode, please refer to code 203.

Default Mode: VMC

Steps:

- 1. Press Manual button to enter configuration mode.
- 2. Use A/C button to scroll to EZ code 202.

Product Price Setting 202

3. Press Enter to price setting mode.

Channel: NO.1 Enter to Change

4. Press Enter to set the channel price.
Use A/C button to select through price digit, use B/E button to add or minus the number.

Set Price \$00.00

When EZ code 204 function is enable, user is able to set 2nd bonus price. Use A/C button to select through price digit, use B/E button to add or minus the number.

Cash cashless \$00.00 \$00.00

5. Press Manual button to confirm the price and exit to channel selection.

The page below would appear after each save. If this page does not appear, that means the settings were not saved, and please reconfirm and press the "Enter" button to save the settings.

Set Price Finish

- 6. When finished, press Manual button to exit.
- 7. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-24. «Set Price Holding by Changer or VMC» Executive only

Code: 203

Definition: Setup whether the product price is hold by Changer or VMC.

Default Mode: VMC

Steps:

- Press Manual button to enter configuration mode.
 Use A/C button to scroll to EZ code 203.

Price Holding Mode 203

3. Press Enter to configure price holding mode.

MODE: VMC Enter to Change

- 4. Press Enter again to change price holding mode condition. (VMC/Changer)
 5. When finished, press Manual button to exit.
 6. Press the "A" or "C" button to scroll through other function settings, and press the "Manual" button to return to standby mode.

3-2-25. « Set 2nd price for cashless function on or off » Executive only

Code: 204

Definition: Setup whether the 2nd price for cashless function to on or off.

Default Mode: ÖFF

Steps:

1. Press Manual button to enter configuration mode. 2. Press A/C button and scroll to EZ code 204.

2nd Price For Cashless 204

3. Press Enter to setup 2nd price for cashless.

Enable Enter to Change

- 4. Press Enter again to change configuration of 2nd price for cashless. (Enable/Disable)
 5. Press Manual button to confirm and exit.
 6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

3-2-26. « Set BA enable with or without e-key »

Code: 205

Definition: 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.

Default Mode: Always

Steps:

- Press Manual button to enter configuration mode.
 Press A/C button and scroll to EZ code 205

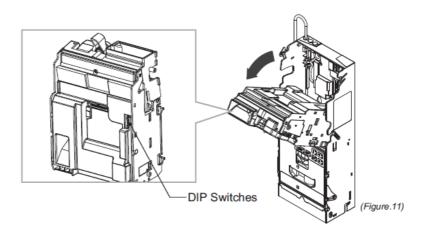
Enable Bill Acceptance 205

3. Press Enter to setup BA enable condition.

Always Enter to Change

- 4. Press Enter again to change BA enable condition.5. Press Manual button to confirm and exit.
- 6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

3-3 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				
MDB Interface					ON			
Executive Interface					OFF			
						ON		
Preset to OFF						OFF		
							ON	
Preset to OFF							OFF	
Turn off the sleep mode								ON
Turn on the sleep mode								OFF

Note: Only Power Saving-MDB product can apply to DIP SW8 function Note: Only Executive product can apply to DIP SW5 function

4. Harness Application

4-1. Wire Harness:

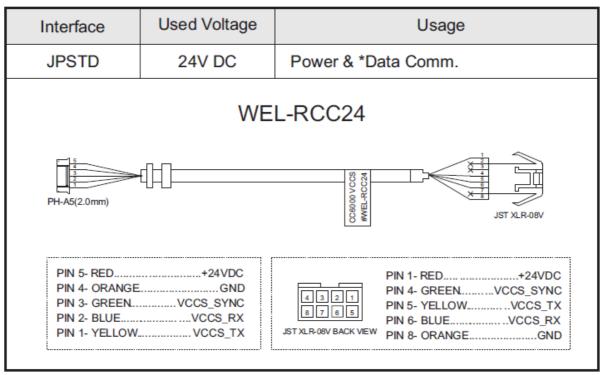
Interface	Used Vo	ltage	Description	Harness	Page
JPSTD	24V	DC	Power & *Data Comm. 55cm	WEL-RCC24-T	
JPSTD	24V	DC	Power & *Data Comm. 75cm	WEL-RCC50-T	
JPSTD	24V	DC	Power & *Data Comm. 95cm	WEL-RCC49-T	
MDB	20 - 45V	DC	Power & *Data Comm. 57cm	WEL-RCC23-T	
MDB	20 - 45V	DC	Power & *Data Comm. 77cm	WEL-RCC51-T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

Warning!! Do not plug both MDB and Executive connecter on VMC board in the same time!! It may cause damage of VMC board.

4-2. Wire Harness for ICT Bill Acceptor Connection:

Interface	ICT Bill Acceptor	Harness	Page
	NIV Control	WEL-RCC31-T +WEL-RCC32-T	
JPSTD NV Series MDB Bill Accept	INV Series	WEL-RCC48-T	
	MDB Bill Acceptor	WEL-RCC48-T +WEL-RCC46-T	
	NV Series	WEL-RCC67-T +WEL-RCC68-T	
MDB		WEL-RCC48-T +WEL-RCC46-T	
	MDB Bill Acceptor	WEL-RCC67-T	

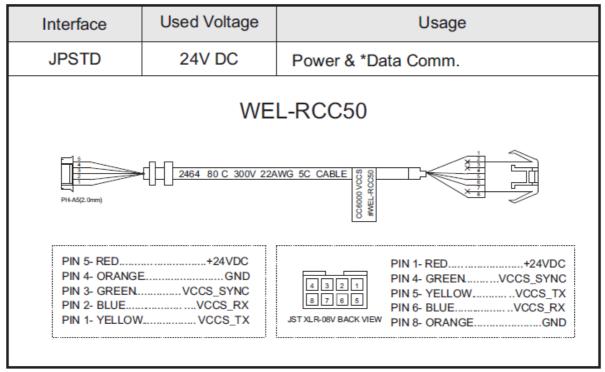
Please refer to Chapter 3-2 < Set the BA Interface > for setting instruction



(Figure.12)

Interface	Used Voltage	Usage				
JPSTD	24V DC	Power & *Data Comm.				
	WEL-RCC49					
PH-A5(2.0mm)		SS				
PIN 4- ORANGE PIN 3- GREEN PIN 2- BLUE	+24VDC VCCS_SYNC VCCS_RX VCCS_TX	PIN 1- RED+24VDC PIN 4- GREENVCCS_SYNC PIN 5- YELLOWVCCS_TX PIN 6- BLUEVCCS_RX PIN 8- ORANGEGND				

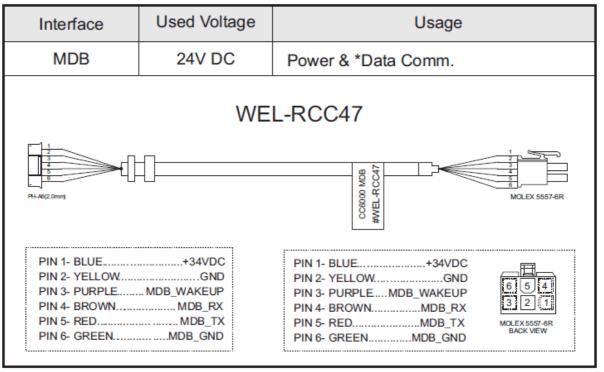
(Figure.13)



(Figure.14)

Interface	Used Voltage	Usage					
MDB	24V DC	Power & *Data Comm.					
F-11	WEL-RCC23						
2 3 4 5 6 8 PH-A6(2.0mm)]-[]	8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					
PIN 2- YELLOW. PIN 3- PURPLE PIN 4- BROWN. PIN 5- RED	+34VDC MDD MDB_WAKEUP MDB_RX MDB_TX MDB_GND	PIN 1- BLUE+34VDC PIN 2- YELLOWGND PIN 3- PURPLEMDB_WAKEUP PIN 4- BROWNMDB_RX PIN 5- REDMDB_TX PIN 6- GREENMDB_GND					

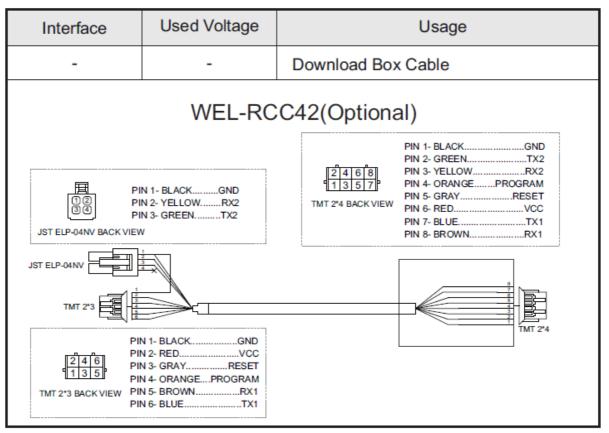
(Figure.15)



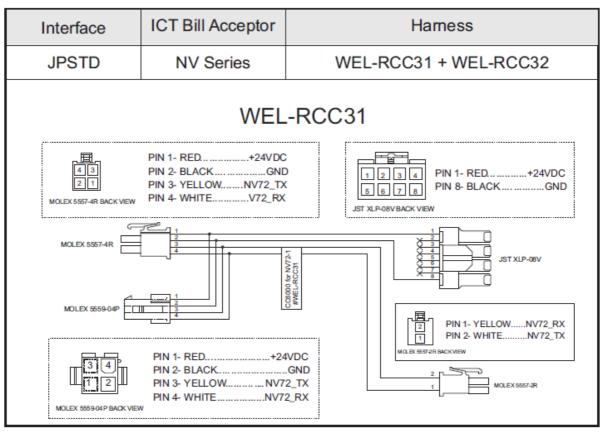
(Figure.16)

Interface	Used Voltage		Usage			
MDB	24V DC	Power & *Da	ata Comm.			
	WEL-RCC51					
PH-A6(2 0mm)	1 3 4 5 6 PH-A6(2.0mm)					
PIN 2- YELLOW PIN 3- PURPLE PIN 4- BROWN. PIN 5- RED		6 5 4 3 2 1 MOLEX5557-6R BACK VIEW	PIN 1- BLUE+34VDC PIN 2- YELLOWGND PIN 3- PURPLEMDB_WAKEUP PIN 4- BROWNMDB_RX PIN 5- REDMDB_TX PIN 6- GREENMDB_GND			

(Figure.17)



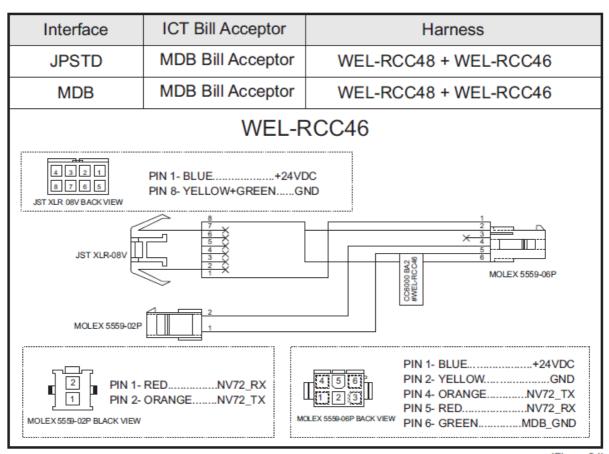
(Figure.18)



(Figure.19)

Interface	ICT Bill Acceptor	Harness			
JPSTD	NV Series	WEL-RCC31 + WEL-RCC32			
PIN 1- RED PIN 2- BLACK PIN 3- YELLOW PIN 4- WHITE	WEL+24VDCGNDNV72_TXNV72_RX	PIN 1- RED+24VDC PIN 2- BLACKGND PIN 3- YELLOWNV72_TX PIN 4- WHITEV72_RX V			
	[3]4	PIN 1- RED+24VDC MOLEX 555904P PIN 2- BLACKGND PIN 3- YELLOWNV72_TX PIN 4- WHITENV72_RX			

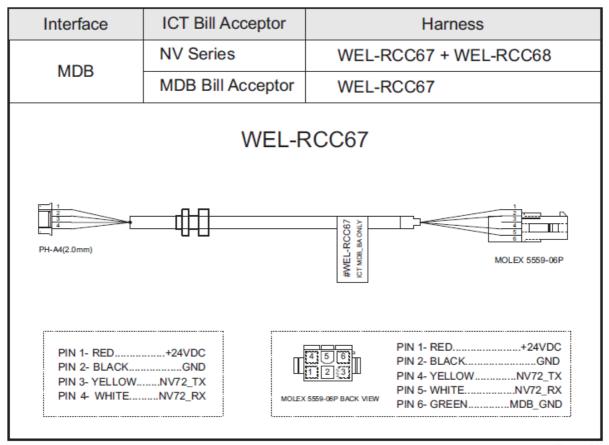
(Figure.20)



(Figure.21)

Interface	ICT Bill Acceptor	Harness		
JPSTD	NV Series	WEL-RCC48		
JPSTD	MDB Bill Acceptor	WEL-RCC48 + WEL-RCC46		
MDB	MDB Bill Acceptor	WEL-RCC48 + WEL-RCC46		
WEL-RCC48 1				
PIN 3- YELLOW	NV72_TX	PIN 1- YELLOWNV72_RX PIN 2- WHITENV72_TX MOLEX 5957-2R BACKVIEW		

(Figure.22)



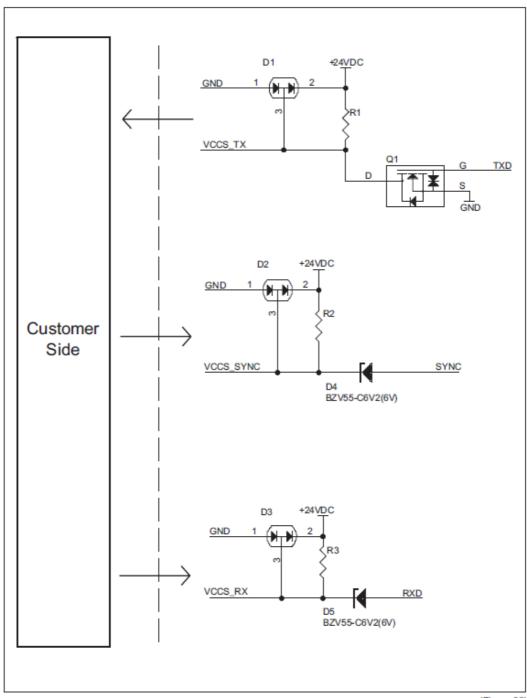
(Figure.23)

Interface	ICT Bill Acceptor	Harness				
MDB	NV Series	WEL-RCC67 + WEL-RCC68				
	WEL-RCC68					
4 3 2 1 8 7 8 5 JST XLR 08V BACK VIEW	PIN 1- BLUE+24VD PIN 8- YELLOW+GREENGN					
	3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1 2 3 4 4 5 5 5 5 5 7 - 6 R MOLEX 5 5 5 7 - 6 R				
	2 1 MOLEX 5559 02P					
	REDNV72_RX ORANGENV72_TX	PIN 1- BLUE+24VDC 6 5 4 PIN 2- YELLOWGND 3 2 1 PIN 4- ORANGENV72_TX PIN 5- REDNV72_RX EX5557-6RBACK VIEW PIN 6- GREENMDB_GND				

(Figure.24)

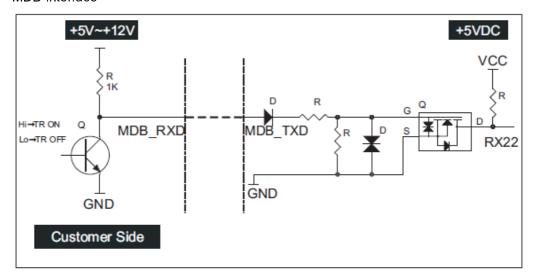
5. I/O Circuit

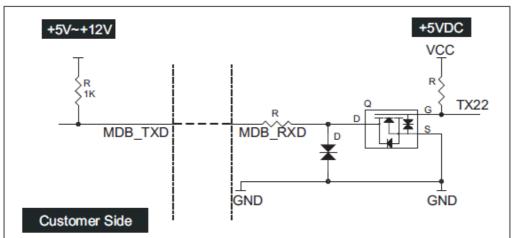
JPSTD Interface



(Figure.25)

MDB Interface



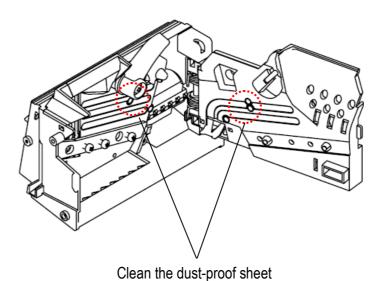


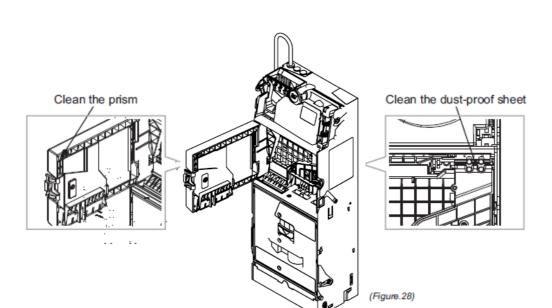
(Figure.26)

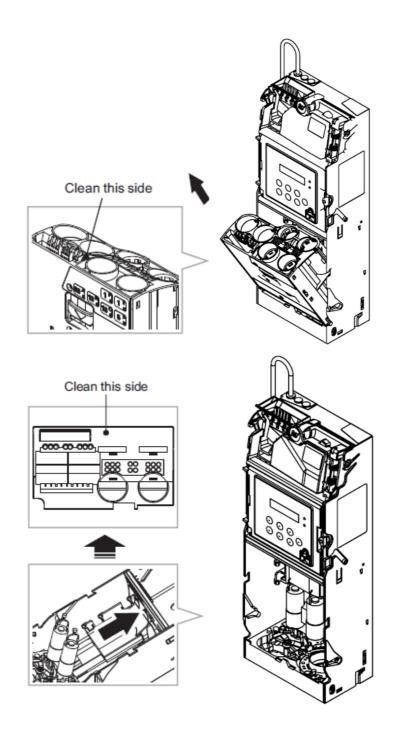
6. Maintenance

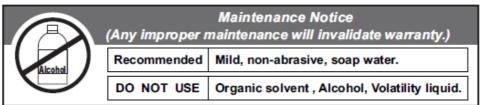
To ensure the coin changer operate correctly, following maintenance steps are required. ICT suggests cleaning every six month; however, under heavy usage conditions or locations the maintenance may need to be more frequent.

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









7. Troubleshooting

7-1. Error Code Messages

«LCM Panel Open»

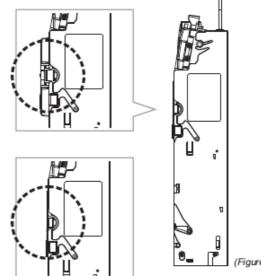
Code: E10

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

> Sorting Module Door Open E10

Cause: LCM Panel Open

Corrective Measure: Close the LCM panel and verify that the latch is in place.



(Figure.31)

«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

«Payout Mode Error»

Code: E12

LED Light Indicator: Red light

LCM Display: As shown in figure below

Payout Mode Err

E12

Cause: Signal from the coin base was not received when the power was turned on.

Corrective Method: Ensure that the signal wire is connected to the coin base.



(Figure.32)

«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.



(Figure.33)

«#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 E17

Cause: Low level LED is damaged.

Corrective Measure: 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.

«Sort Sensor Error»

Code: E18

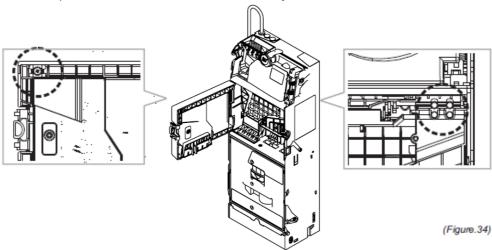
LED Light Display: 3 red + 4 red LCM Display: As shown in figure below

> 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»

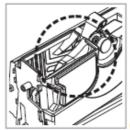
Code: E19

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

> Coin Validator Door Error E19

Cause:

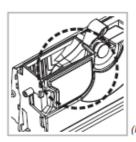
The deck is open for over 30 seconds.



(Figure.35)

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.



(Figure.36)

«Motor Error: A&B»

Code: E20

LED Light Display: 7 red

LCM Display: As shown in figure below

All Motor Error

E20

Cause: Both the first and second group motors cannot be positioned.

Corrective Measure: Please reference instructions for "E19" and "E20" below.

«Motor Error: A»

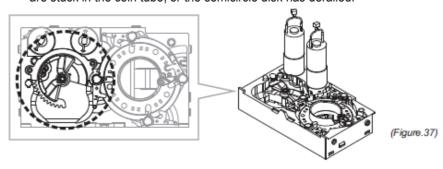
Code: E21

LED Light Display: None

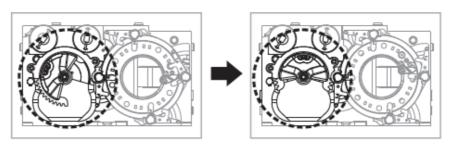
LCM Display: As shown in figure below

Left Motor Error 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.



- Corrective Measure: 1. Confirm whether a foreign object has caused the semicircle disk to get stuck. If there is, remove the object and turn on the power again. Use buttons "A" and "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.
 - 2. Verify whether the semicircle disk has derailed. If it has, then move the disk back onto the track and reactive the machine. Use buttons "A" and "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.



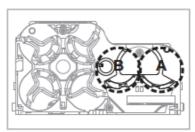
(Figure.38)

3. Turn on the power again and use buttons "A" and "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 "A" and "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.



(Figure.39)

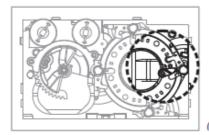
«Motor Error: B»

Code: E22

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

Right Motor Error 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.



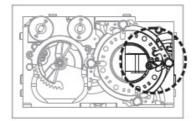
(Figure.40)

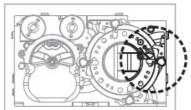
Corrective Measure: 1. Confirm whether a foreign object has caused an obstruction. If there is, remove the object and turn on the power again and determine if the coin rod can return back to its position. Use buttons "C," "D," "E," and "F" of the LCM to test and determine whether the coin rod can hit 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 to handle the situation.
- 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.

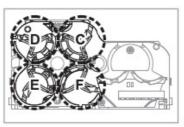




(Figure.41)

4. Confirm whether "C," "D," "E," and "F" tube openings are stuck by a coins

If they are, remove and reinsert the coin and reassemble the coin tubes. 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.



(Figure.42)

«Cassette Out»

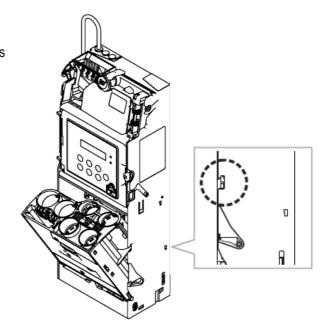
Code: E23

LED Light Display: 5 red LCM Display: As shown in figure

Cassette Out E23

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

Corrective Measure: Ensure that the coin tubes are correctly positioned



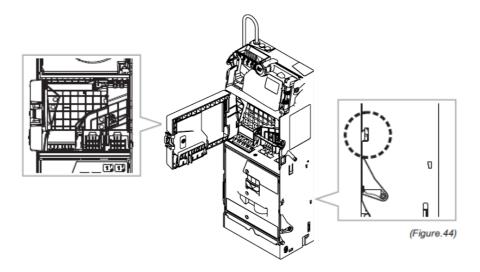
«Tube H/L Sensor Error»

Code: E24

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

Coin->Tube Sensor Error E23

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.



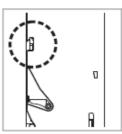
Corrective Measure:

1. Open the LCM panel to verify whether coins are stuck in the coin separation area. If there are 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 coins of various denominations to ensure that they enter the corresponding coin tube. If this is the case then the problem has been resolved.



(Figure.45)

2. Ensure that the coin tubes have been positioned correctly. Turn on the power again. Insert coins of various denominations to ensure that they enter the corresponding coin tube. If this is the case 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 at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sensor Error: B»

Code: E26

LED Light Display: None

LCM Display: As shown in figure below

Tube B Sensor Error E26

Cause: "B" Tube Low Level = empty, Hi Level = full at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«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: "C" Tube Low Level = empty, Hi Level = full at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sensor Error: D»

Code: E28

LED Light Display: None

LCM Display: As shown in figure below

Tube D Sensor Error E28

Cause: "D" Tube Low Level = empty, Hi Level = full at setup. Corrective Measure: Retry once every 2 seconds during the standby mode.

«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: "E" Tube Low Level = empty, Hi Level = full at setup. Corrective Measure: Retry once every 2 seconds during the standby mode.

«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: "F" Tube Low Level = empty, Hi Level = full at setup.
Corrective Measure: Retry once every 2 seconds during the standby mode.

«Barcode Reader Error»

Code: E31

LED Light Display: None

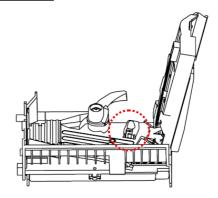
LCM Display: As shown in figure below. The machine will continue to work.

BarCode Sensor Error E31

Cause: Barcode Reader error.

Corrective Measure: Ensure that the Barcode Reader is not dirty or blocked by foreign objects. If it is, 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

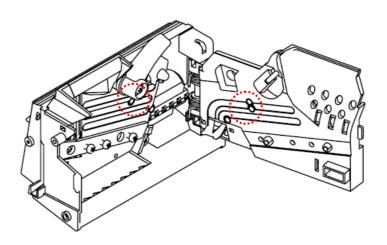
LED Light Display: None

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.



«Inhibit By VMC»

Code: None

LED Light Display: 2 red

LCM Display: As shown in figure below

Inhibit By 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:

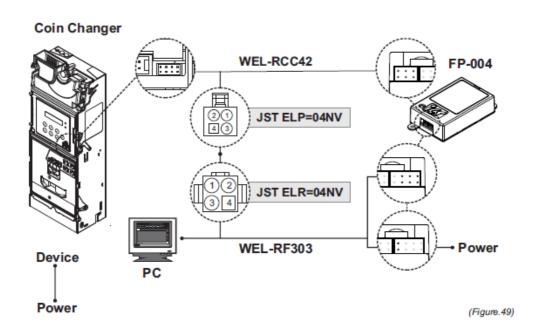
8-1. MCU STM32 Firmware Download by FP-004

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 1pc

8-1-2. Connection



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



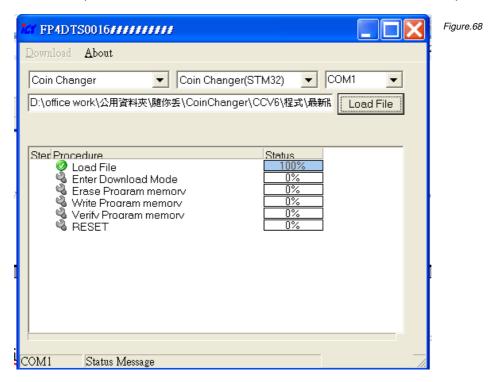
3. Select Coin Changer, STM8, type of FP004 download box, RS232 COM port, and specify the path for file download (only accept files with .s19 extensions).



- 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)



7. Download Completed, all procedures reach 100%.

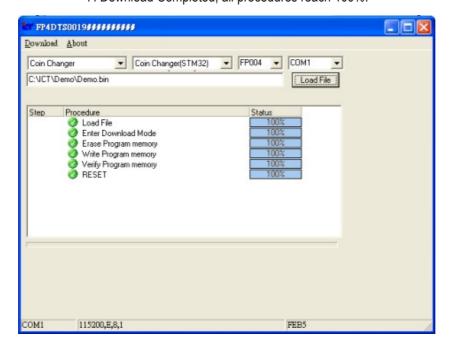


Figure.69

8-2. MCU STM32 Firmware Download by IrDA Special Function

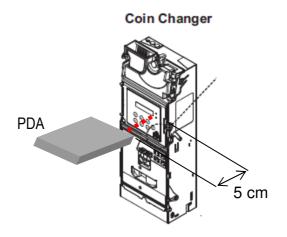
8-2-1. Tools

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. Cashflow Setting

- 9-1-1. Set Changer to Initial Setting
 - 1. Open PC Tool. Select "Cashflow Setting" function item.
 - 2. Select changer Type.



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



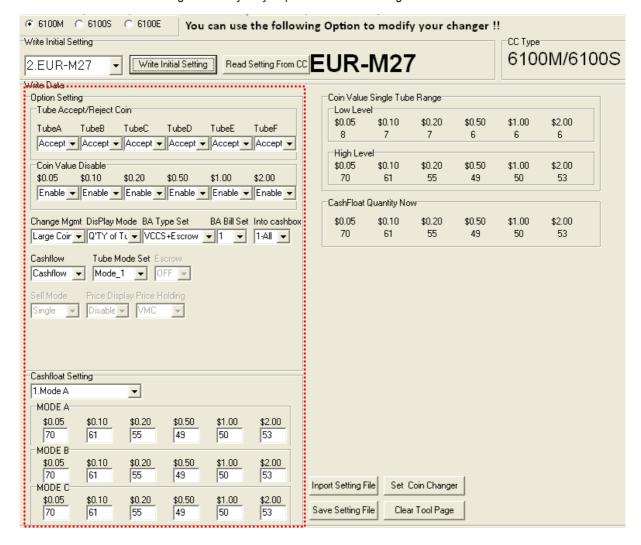
- 4. Click "Write Initial Setting" button to start download process.
- 5. To confirm whether the changer has been correctly setup, click "Read Setting From CC" to load changer setting and display on PC tool for confirmation.



9-1-2. Set Changer to Customization Setting

- 1. Open PC Tool. Select "Cashflow 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

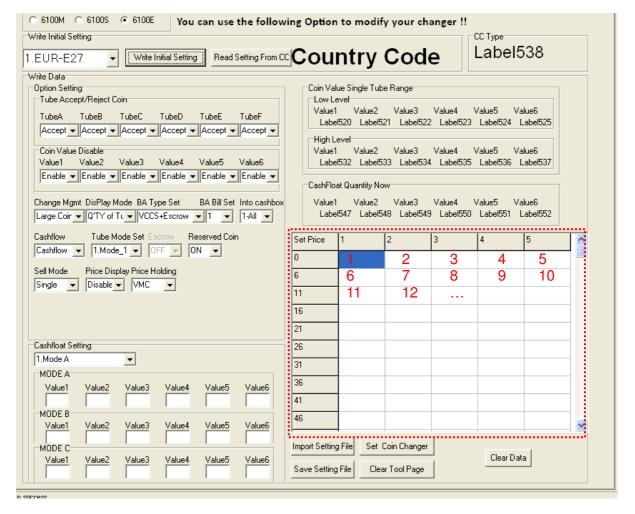
- 1. Open PC Tool. Select "Cashflow Setting" function item.
- 2. Select Changer Type.

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.



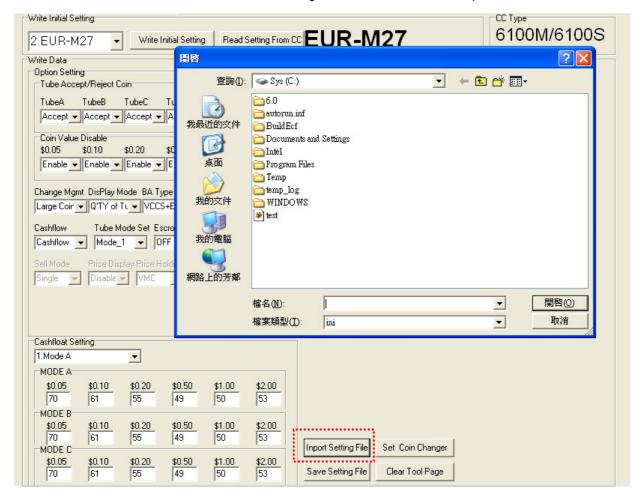
4. After filling channel price into list, click "Set Coin Changer" to save setting to changer.

9-1-4. Setup File Management

Import Setting File

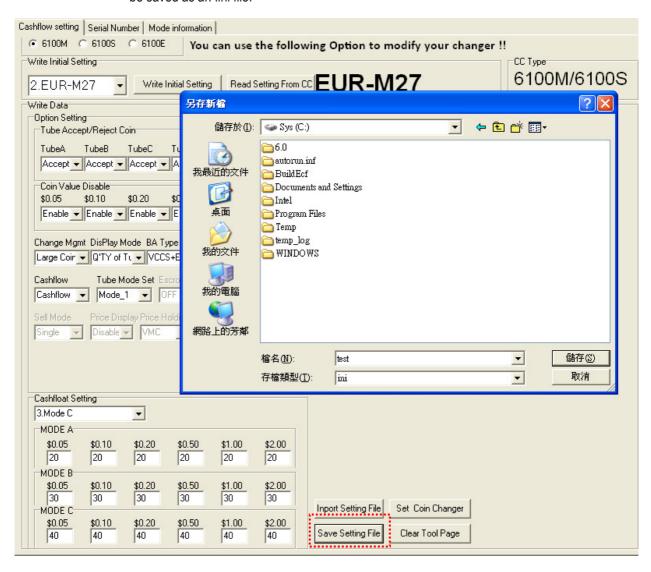
- 1. Click "Import Setting File" to load setup file, a file selection window shows up.
- 2. Choose setup file in .ini format and click open to load.
- 3. PC Tool displays setting of the imported file.

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.



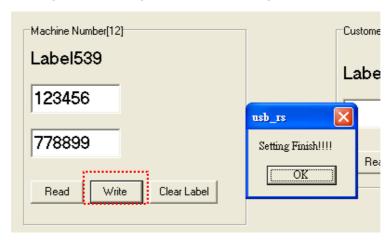
9-2. Serial Number Setting

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.

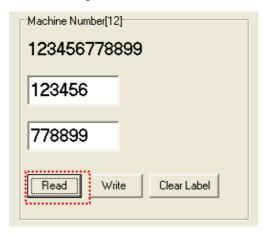
Then click "Write" button to set serial number to changer.

"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.



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 A – 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

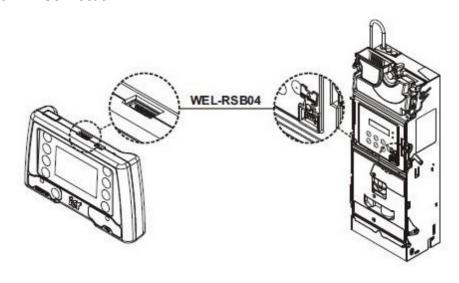
10-1-1. Tools

Please prepare download box and related wire accessories ready

1. Tool Kit Box: MTB x 1pc

2. Cable-wires: #WEL-RSB04 x 1pc

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

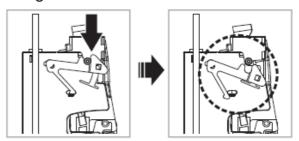
- 1. Prepare connection above and set changer in standby status for data read out.
- 2. Use PDA IrDA component to point directly to the IrDA of changer.
- 3. Start audit data transmission. A file format in .eva will be saved to PDA.

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

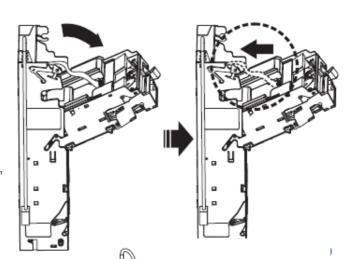
11-1. Upper Module Disassembling:

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

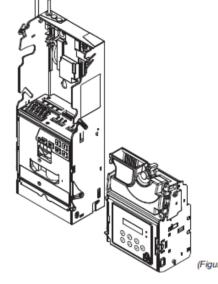


(Figure.57)

- 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:

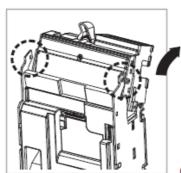
1. Turn the upper half of the module towards the back and ensure that the points of the modules are flipped to the sides.



two fix two

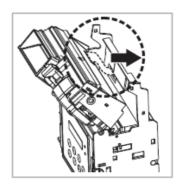
(Figure.60)

2. Pull out the recognition module.



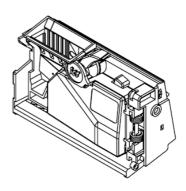
(Figure.61)

3. Unplug the wire connecting to the identification module.



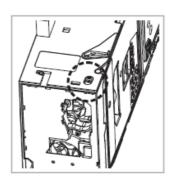
(Figure.62)

4. Pull and remove the recognition module.



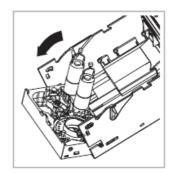
11-3. Coin Discharge Module Disassembling:

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



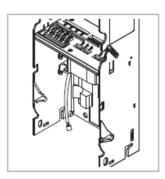
(Figure.64)

2. Rotate the coin discharge module downward 90 degrees.



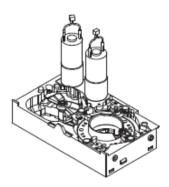
(Figure.65)

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



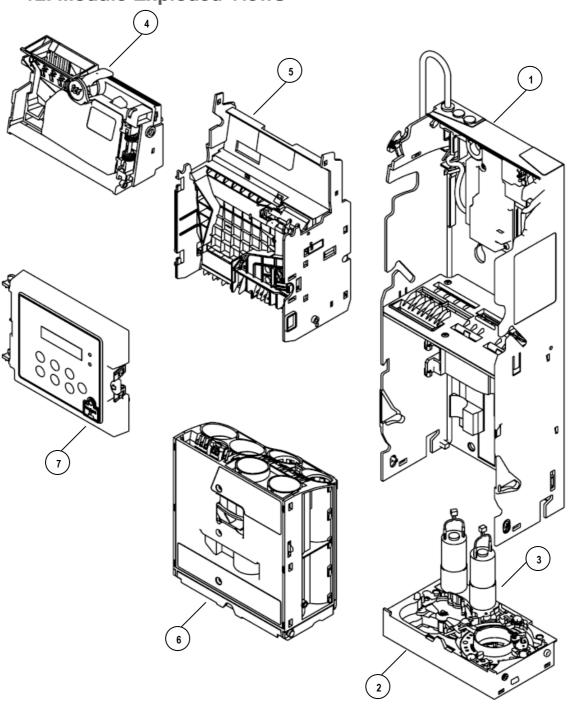
(Figure.66)

4. Pull and remove the coin discharge module.



(Figure.67)

12. Module Exploded Views



Note	Order	Part Number	Appellation	Quantity
	1	3RCC-CAS01001	Coin Change Main Machine Module	1
	2	3RCC-POK03004	Coin Changer-Coin Discharge Module	1
	3	3RCC-MOT02001	Changer Coin Discharge Motor Module	1
	4	3RCC-IDE01000	Recognition Module (2.5mm)	1
	5	3RCC-SOR01003	Coin Separation Module (ESCROW-A)	1
	6	3RCC-TUB06003	Coin Tube Module (NTD Version-2)	1
	7	3RCC-FAC01002	LCM Display Panel Module	1



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