

KCM-D

Coin Changer

(Version of EURO coins)

OPERATION AND SERVICE MANUAL

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CHAPTER 1: GENERAL INFORMATION

Introduction

KCM-D coin changer is one of cash validate series products.

It **intergrades** both coin validating and coin changing, not only being able to deposit coins in different coin paths after identifying coins, but also being able to precisely change according to requirement.

This manual contains information on installing, **operating** and maintaining KCM-D coin changer. This manual is intended for owners, route operators and shop level technicians as a primary source of information. Taking time to read this manual and becoming familiar with this information will help you obtain the best performance from your coin changer.

KCM-D can accept and validate up to 12 different coins or tokens ranging in diameter from 15.5 to 32.5 mm and 1.07 to 3.10 mm in thickness.

For the EURO, KCM-D is factory tuned to accept EURO coins 2 EUR, 1 EUR, 50 Cents, 20 Cents, 10 Cents and 5 Cents. Among them, 2 EUR and 20 Cents are routed to **Cashbox** while the others (1 EUR, 50 Cents, 10 Cents, and 5 Cents) are routed to their tubes respectively.

Features

The KCM-D coin changer has a modular design for easy service.

- Individual tubes snap in and out for easy customization.
- Coin tubes are clearly marked with coin denomination in bold white numbers.
- Programmable acceptor allows for easy reconfiguration of coin tubes in the field.
- Hinged front cover simplifies tube removal and serviceability.
- Acceptor “Park Position” allows easy access to the coin tubes.
- Pays change from self-loading high capacity change tubes.
- Two motors provide fast accurate payout.
- All models equipped with the MDB protocol.
- Lightweight, rugged plastic construction.
- State-of-the-art electronic logic system is designed for reliability and performance.

After Unpacking

After unpacking the unit, inspect it for any possible shipping damage. We recommend that you keep the original carton and packing materials to reuse if you need to transport or ship your changer in the future.

If the coin changer is being stored or used as a spare, always keep it in its shipping carton when not in use. This will keep it clean and offer the best protection for the unit.

Specifications

Power supply	24V DC
Communication Interface.....	MDB (Multi-Drop Bus)
Operating Temperature.....	-15 to 65 Degrees Celsius
Relative Humidity.....	20% to 98% Noncondensing
Operating Attitude.....	Vertical ± 3 Degrees
Physical Dimensions	Height: 379mm Width: 138mm Depth: 76mm
Shipping Weight	Approximately 3 Kg

CHAPTER 2: INSTALLATION

Installing The Changer (see the figures below)

1. Remove power from vendor.
2. Remove the acceptor from the changer by pressing down on the acceptor latch, releasing the acceptor.(see figure 2.1) .Rotate the top of the acceptor forward, away from the changer. (see figure 2.2). Unplug the ribbon cable from changer. Free the lower acceptor studs from the changer housing. Place the acceptor in a clear area.
3. With the acceptor removed, set the mounting holes in the back of the changer housing over the mounting screws in the vendor. Tighten snugly (see figure 2.3).
4. Re-install the acceptor by inserting the lower acceptor studs into the changer housing guides. Plug the ribbon cable into the changer. (see figure 2.2)
5. Plug changer into vendor socket.
6. Press top of the acceptor into the changer housing until the acceptor latch locks.
7. Load the tubes with coins. (See “Hand Loading” and “Loading Through the acceptor”).
8. Check to make sure the front cover, tube shield and acceptor are properly installed.
9. Apply power to the vendor.
10. Test the changer with a variety of coins to ensure proper operation.

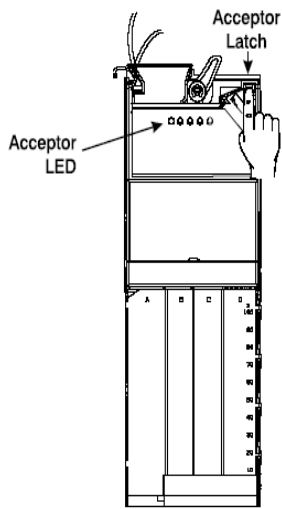


figure 2-1

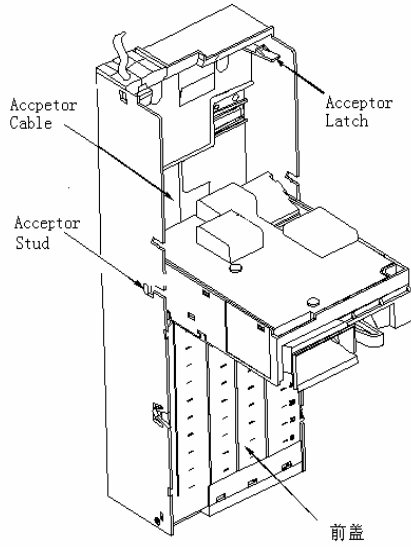


figure2-2

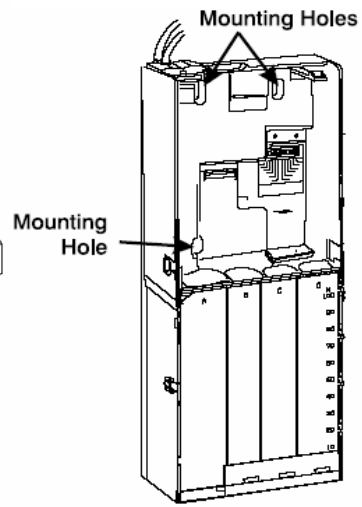


figure 2-3

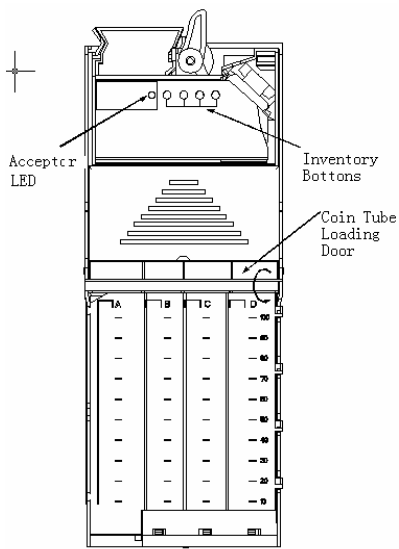


figure 2-4

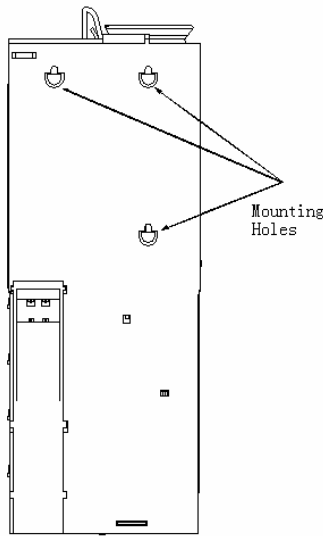


figure 2-5

CHAPTER 3: OPERATION

Filling the Coin Tubes

HAND LOADING (see figure 3-1)

To hand load the coin tubes, tilt the coin tube loading door open, load the four tubes with appropriate coins. Make sure all coins lay flat and each tube is filled at least to

the 20% mark. Payout at least two coins from each tube to verify tubes are loaded correctly.

The recommended loading number of different denominational value of coin into the tubes as follow:

1 EUR, 18-20 coins; 50 Cents: 20-22 coins

20 Cents: 25-30coins; 5 Cents: 25-30 coins

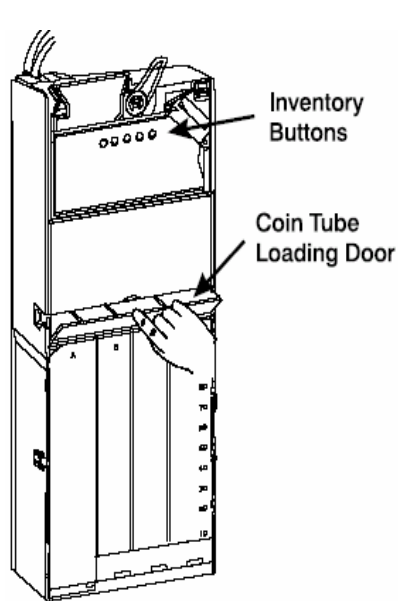


figure 3-1

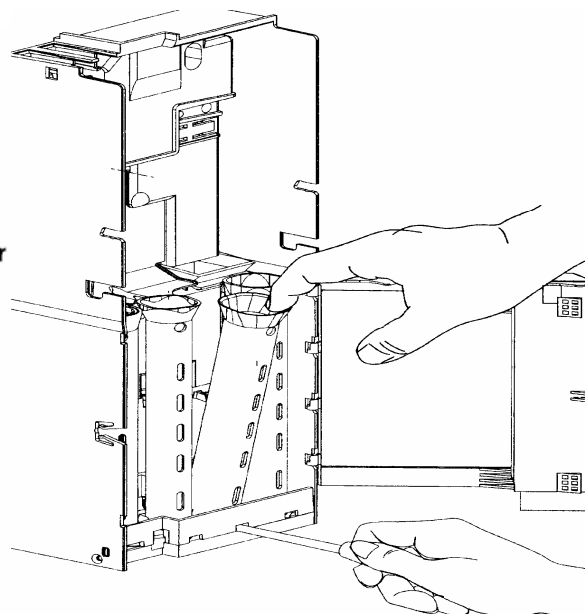


figure 3-2

LOADING THROUGH THE ACCEPTOR

If you need to count the coins, you can load coins through the acceptor.

Changing the Coin Tubes (see figure 3-2)

To change the coin tubes, remove the acceptor and tube shield from the changer housing.

Next, open the front cover by gently pulling outward on the left side, swinging it open to the right. Remove the four tubes one at a time by pulling upward.

Replace the tube and shim assemblies by inserting the tube's dovetails into the guides in the housing and push down.

Coin tubes should be arranged in line with the different denomination value of coins

CHAPTER 4: MAINTENANCE

Routine Maintenance

Routine maintenance will improve performance and extend the life of your KCM-D changer and reduce the need for more involved repairs. Frequency of maintenance

will depend on environment and numbers of transactions. General, We suggest that you should clean one times per six months, and one times per three months in special environment.

The coin changer should be kept in its original shipping carton when not in use. This will keep the changer clean and offer the best protection for the unit.

Cleaning

The majority of your KCM-D changer is manufactured from a high-quality plastic, which should only be cleaned with a warm water and mild detergent solution.

CAUTION:

Never submerge changer in water.

Do NOT use petroleum solvents, steel wool, scouring pads, or metal brushes for cleaning.

Do NOT spray any part of the changer with any type of lubricant.

Since all coins share a common coin ramp, heavy usage or a dirty environment can result in dirt build-up in the acceptor. To clean the coin ramp, lift the acceptor gate upward and diagonally to the right. Hold the gate to prevent it from snapping back. Wipe the exposed coin ramp and inner surfaces with a damp cloth.

Clearing Coin Jams

Should a coin jam occur in the cash box chute area, use the following steps to help dislodge the coins:

1. Remove the changer from vendor.
2. From the backside of the changer housing, remove the tape seal from the cashbox chute. Lift the bottom of the chute up and slide the cashbox chute out.
3. Remove any lodged coins.
4. Replace the cashbox chute by pressing in and up to snap into place.

CHAPTER 5: TROUBLESHOOTING

TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	PROCEDURE	REMEDY
No coin acceptance	No power Acceptor	Make sure changer is plugged into vendor. Check acceptor LED. If LED is on, replace acceptor. If still no coin acceptance, If still no coin acceptance, If acceptor LED is off, check to see that acceptor cable and changer power harness are properly connected to changer's main board If still no coin acceptance, If still no coin acceptance,	Plug changer into vendor. Replace acceptor. Replace changer's main board Replace changer's main power harness. Plug acceptor cable and/or changer power harness into changer main board. Replace changer's acceptor main board. Replace changer's main power harness.
No coin acceptance Or Rejects Percentage Of Good Coins	Coin Return Lever Acceptor is dirty or foreign matter in coin accept path	Make sure changer is mounted correctly and coin return lever in proper position Check to see that acceptor coin path is clean and free of matter If still rejects good coins, If still rejects good coins,	Reposition changer and/or vendor coin return lever. Clean acceptor and remove any foreign matter. Replace acceptor. Replace changer's main board

Acceptor Coins But Give No/Or Erratic Credit	Acceptor	Replace acceptor with good acceptor and test to see if changer functions properly. If still no/erratic credit, If still no/erratic credit,	Replace defective acceptor. Replace change's main board. Replace changer's main power harness.
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TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	PROCEDURE	REMEDY
Accepted Coins Always Go To Cashbox	Tube Sensor Board Acceptor	Check the sensor board for loose components. Make sure tube sensor board is properly secured to main board. Check cable from sensor board for damage or improper connection. If coin still goes to cashbox, replace acceptor with good acceptor and test to see if changer functions properly. If coin still goes to cashbox,	Replace tube sensor board. Replace acceptor. Replace changer's main board.
Acceptor coins always Go To coin tubes	Coin tube gate is in open position Tube Sensor Board	Remove acceptor back cover and check solenoid for free operation. Replace tube sensor board with good board and test to see if changer functions properly. If coins still go to tubes,	Replace acceptor. Replace tube sensor board. Replace changer's main board.

No Payout	Payout Motor	<p>Make sure motor wires are properly connected to changer's power board.</p> <p>If still no payout, replace motor with good motor and test to see if changer operates properly.</p> <p>Make sure coin is routed to that tube.</p>	<p>Plug motor wires into power board.</p> <p>Replace defective payout motor.</p>
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