

Chapter 5

Trouble Shooting / Maintenance

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5-1. Error Codes

Number of Red flashes of the LED lamp indicates the Error of TAIKO unit.

LED lamp is located in the middle of the faceplate.

5-1-1. Error Codes

# of Flashes	Diagnostic Description
2	ROM error
3	Banknote remains inside ejection slot
4	Banknote remains inside transport path
5	EEPROM read/write error
6	Motor error
8	Entrance solenoid error
9	Exit solenoid error
12	Fraud detected

5-2. Trouble Shooting

When an error message appears or trouble occurs and the TAIKO unit does not work properly, recover the TAIKO unit following the instruction below.

5-2-1. General Troubles

Symptom/Error Message	Possible Causes	Recovery Action
Acceptor is not working (Acceptor does not accept any bill)	Power is not supplied to the acceptor.	Verify the specified voltage and ground are supplied to appropriate pins of the interface connector.
	Connection is wrong.	Verify if all harnesses and connectors are connected properly. Verify if the connector pin has been any bend, missing, broken. Verify if the specified voltage is supplied to the appropriate pin. See=> Chapter 2 Specifications
	Software is not downloaded.	Download the appropriate software to the TAIKO unit. See=> 4-1.Download
	CPU/Sensor Board is Corrupted.	Perform Acceptance Test. See => 4-2. Test Mode (Diagnostics) If the test result is NG, replace the CPU/Sensor Board. See=> Chapter 6 Replacement procedure After CPU/Sensor board is replaced, perform the adjustment. See=> 4-2. Adjustment

Symptom/Error Message	Possible Causes	Recovery Action
JAM bill occurs often.	Feed or Pinch roller is spoiled with dirt or broken.	Clean the feed or Pinch roller. See=> 6-4. Cleaning If any corruption is found, replace it. See=> 6-2. Replacement of Sensor Board
	Feed or Pinch roller spring is missing or loose.	Verify the condition of the Feed or Pinch roller spring and replace it as required.
	There is any foreign objects is on the transport path.	Remove the foreign objects from the transport path and clean. See=> 5-4. Cleaning
	Faceplate does not match with the bill width.	Change the faceplate guide depending on the bill width. See=> 3-3. Replace of Faceplate Guide
	The bill width is 83mm or larger or 62mm or less. (Out of TAIKO Specifications)	Use the only acceptable bills. See=> Chapter 2 Specifications
Acceptor is not working. (Acceptor does not accept any bills.)	Entrance Sensor is not working or there is any foreign object at the entrance.	Remove the foreign object and clean the entrance sensor. See=> 5-4. Cleaning Perform Aging. See=> 5-2-6. Aging details If any sensor error is found, replace the CPU/Sensor board. See=> Chapter 6 Replacement Procedure
Acceptance rate is low.	Rollers, belts and lenses is soiled with dirt.	Clean the rollers, belts and lenses. See=> 5-4. Cleaning
	Sensor needs to be adjusted.	Adjust the TAIKO unit. See=> 5-4. Cleaning
	After disassembled, the TAIKO has not been adjusted.	Adjust the TAIKO unit. See=> 5-4. Cleaning
	The software revision is old.	Download the latest software program. See=> 4-1. Download
	The bill that software program is not supported is inserted.	Verify if the denomination, issued year is appropriate in the software information sheet.

Symptom/Error Message	Possible Causes	Recovery Action
All bills are returned.	Software does not match with the currency.	Download the appropriate software program to the TAIKO unit. See=> 4-1. Download
	DIP Switch setting is wrong.	Set the accepting setting properly. See=> 2-7-3. Denomination Setting
	The command from Host is set to inhibit.	Set the command to accept.
	CPU/Sensor failure is occurred.	Replace CPU/Sensor Board. See=> Chapter 6 Replacement Procedure.
	Sensor needs to be cleaned and adjusted.	Clean all sensors. See=> Cleaning Perform adjustment See=>4-2. Adjustment
Motor rotates a few times and stop.	CPU board failure	Replace the CPU board. See=> 6-1. Replacement of CPU board
	DIP Switch setting is wrong.	Set the DIP Switch No.1 ON and supply the power to the TAIKO unit.
Cannot enter the Test Mode.	DIP Switch is broken.	Perform the DIP Switch TEST. See=> 5-3-3. DIP Switch Test Details If the test result is NG, replace the CPU board. See=> 6-1. Replace of CPU board
	CPU board failure	Replace the CPU board. See=>6-1. Replacement of CPU board

5-2-2. Adjustment Troubles

Symptom/Error Message	Possible Causes	Recovery Action
Adjustment Error	Reference paper is wrong.	Use the reference paper (KS-070) for TAIKO.
	CPU/Sensor board failure.	Replace the CPU/Sensor board. See=> Chapter 6 Replacement Procedure

5-2-3. Communication Troubles

Symptom/Error Message	Possible Causes	Recovery Action
Cannot communicate with Host	DIP switch setting is wrong.	Set all DIP Switches OFF and supply the power to the TAIKO unit.
	Connector is unplugged or is not connected properly.	Connect all connector properly.
	Connector pin is broken.	Verify if the connector pin is any bend, broken or missing. Replace the CPU board as required.
	CPU board failure	Replace the CPU board. See=> 6-1. Replacement of CPU board
	Interface is wrong.	Verify if the interface is appropriate with Host. If wrong, set the interface properly. See=> 2-7. DIP Switch



- When you cannot solve the problem even if you follow the instruction above, please contact JCM. See => 5-6. Support

5-3. Test Mode (Diagnostics)

TAIKO has the diagnostics function. TAIKO can be specified the part of the error using the diagnostic funktion.

5-3-1. DIP Switch Setting List

Test Items	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
DIP Switch Test	ON							
Transport Motor Forward Rotation Test	ON	OFF						
Transport Motor Reverse Rotation Test	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
Sensor Test	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
Solenoid Test	ON	ON	ON	ON	OFF	OFF	OFF	OFF
Accepting Test	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
Entrance Flapper Test	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
Exit Flapper Test	ON	ON	OFF	ON	ON	OFF	OFF	OFF

5-3-2. DIP Switch Test Procedure

Test the DIP switches.

1. Set all DIP switches ON and then supply the power to the TAIKO uit.
2. Set the switch No.1 OFF to start the test. Set the switch Nos.3, 5 and 7 OFF and verify if the LED lamp lights Green.
3. Then set the switch Nos.2, 4, 6 and 8 OFF and verify the LED lamp lights Blue.



- If TAIKO's red LED lights, the DIP Switch has a problem.

5-3-3. Transport Motor Forward Rotation Test Procedure

Test the condition of the Transport Motor forward rotation.

1. Set the switch No.1 ON and supply the power to the TAIKO unit.
2. Set the switch No.1 OFF to start the test. The transport motor rotates forward. 3. If the Blue LED lamp blinks despite the number, the test is completed. No error is found.



- If TAIKO's red LED lamp lights, the Transport Motor has a problem.

5-3-4. Transport Motor Reverse Rotation Test Procedure

Test the condition of the Transport Motor reverse rotation.

1. Set the switch No.1 and 2 ON and supply the power to the TAIKO unit.
2. Set the switch No.1 OFF to start the test. Ther transport motor rotates reverse.
3. If the Blue LED lamp blinks despite the number, the test is completed. No error is found.



- **If TAIKO's red LED lamp lights, the Transport Motor has a problem.**

5-3-5. Aging Procedure

1. Set the switch Nos.1, 2 and 4 ON and supply the power to the TAIKO unit. Set the switch No. 1 OFF to start the test.
2. TAIKO unit repeats the following operation.
LED lamp lights => Motor rotates foward => Motor rotates reverse
3. If an sensor error is found while aging, the TAIKO stop the operation. You can speci-
fied the error of the sensor with the number of the LED lamp blinks.

# of Flashes	Sensor Position
1	Enterance Sensor Right
2	Enterance Sensor Left
3	Upper Transit Sensor
4	Lower Transit Sensor
5	Enterance Solenoid Sensor
6	Exit Solenoid Sensor
7	VEND Lever Sensor
8	Encoder Sensor
1	Penetration (Upper to Lower) Right IR
2	Penetration (Upper to Lower) Left IR
3	Penetration (Upper to Lower) Right RED
4	Penetration (Upper to Lower) Left RED
5	Penetration (Upper to Lower) Right NIR
6	Penetration (Upper to Lower) Left NIR
7	Penetration (Upper to Lower) Right BLUE
8	Penetration (Upper to Lower) Left BLUE
1	Penetration (Lower to Upper) Right IR
2	Penetration (Lower to Upper) Left IR
3	Penetration (Lower to Upper) Right RED
4	Penetration (Lower to Upper) Left RED
5	Penetration (Lower to Upper) Right NIR
6	Penetration (Lower to Upper) Left NIR
7	Penetration (Lower to Upper) Right BLUE
8	Penetration (Lower to Upper) Left BLUE

5-3-6. Solenoid Test Procedure

Test the condition of the solenoids.

1. Set the switch Nos.1, 2, 3 and 4 ON and turn ON the power to the TAIKO unit.
2. Set the switch No.1 OFF to start the test. Then the TAIKO unit repeats the following operation.

Entrance Flapper On/Off => Exit Flapper On/OFF

3. If the Blue LED lamp lights, no error is found.



- If TAIKO's red LED lights, the Solenoid has a problem.

5-3-7. Accepting Test Procedure

Test the condition of the acceptance of the bills.

1. Set the switch No.1 and 5 ON and supply the power ON.
2. Set the switch No.1 OFF to start the test. Then insert the bill to the TAIKO unit.
3. If the bill is returned, the LED flashes depending on the reason for the returning.

# of Flashes	Diagnostic Description
2	ROM Error
3	JAM inside Acceptor
4	Bill remains inside transport path
5	Adjustment Error
6	Motor Error
8	Entrance Solenoid Error
9	Exit Solenoid Error
12	Sensor operation at the abnormal timing
1	Reject by slant insertion
4	X-rate Error
5	Bill Transportation Error
7	Pattern Error
8	Photo Level Error
9	Reject by Inhibit Setting
13	Bill Length Error
14	Ir/Red Error
15	Reject by counterfeiting currency

5-3-8. Entrance Flapper Test Procedure

Test the entrance flapper.

1. Set the switch Nos.1, 4 and 5 ON and turn the power to the TAIKO unit.
2. Set the switch No.1 OFF to start the test. Then the entrance flapper repeats open/close operation.
3. If the Blue LED lamp lights, no error is found.



- If TAIKO's red LED lamp lights, the Entrance Flapper has a problem.

5-3-9. Exit Flapper Test Procedure

Test the exit flapper.

1. Set the switch Nos.1, 2, 4 and 5 ON and turn ON the power to the TAIKO unit.
2. Set the switch No.1 OFF to start the test. Then the exit flapper repeats open/close operation.
3. If the Blue LED lamp lights, no error is found.



- If TAIKO's red LED lamp lights, the Exit Flapper has a problem.

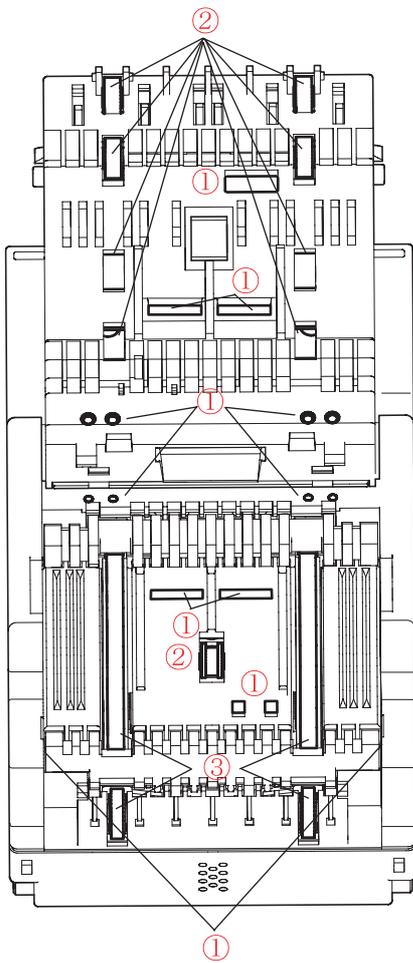
5-4. Cleaning

If the paper dust or foreign object spotted in the acceptor parts, the acceptance rate may go down. Clean the acceptor parts once a month. Wipe out on the sensor with lint-free cloth or cotton bud. Remove the paper dust or foreign object completely on the rollers.

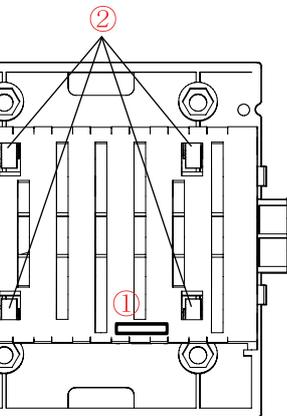
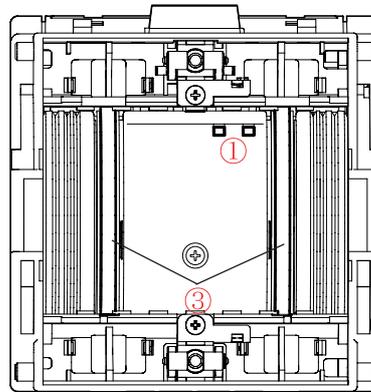


- **DO NOT use the organic solvent such as thinner or benzin, when wiping the TAIKO unit.**

■ Sensor/Roller Location



Open Upper Lid



Open Lower Lid

- ① Sensor
- ② Pinch Roller
- ③ Feed Roller

5-5. Maintenance Tool List

When maintenance or adjust TAIKO unit, the following parts need to be purchased.

Items	EDP#	Part#	Description
Power Supply Unit	116125	VM-30	This unit is to supply the power to TAIKO unit.
TAIKO Harness A	127527	3280-05-54	This harness is to connect with TAIKO unit and Power Supply Unit.
TAIKO Harness B	116488	3280-03-11	This harness is to connect with PC and TAIKO unit when downloading or connecting with palm.
Clone Harness	124528	3280-05-52	This harness is to connect with a master TAIKO and a slave TAIKO when cloning.
Reference Paper	119581	KS-070	This is a reference paper to adjust TAIKO unit.

5-6. Product Support

If you happen to experience any problems or errors with your TAIKO unit, or have any inquiries regarding your unit, consult with your nearest JCM contact as shown below. Please be sure to make a note of the problem points and symptoms, or the content of your inquiry, prior to making contact.

■ Japan

Japan Cash Machine Co. Ltd. (Headquarters)

3-15, Nishiwaki 2-Chome, Hirano-ku, Osaka 547-0035

Japan

Phone: +81-66-703-8406

Fax: +81-66-704-7843

URL: www.jcm-hq.co.jp

■ Americas, Oceania

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