

# LAC-17 MAINTENANCE MODE

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# LAC-17 MAINTENANCE MODE

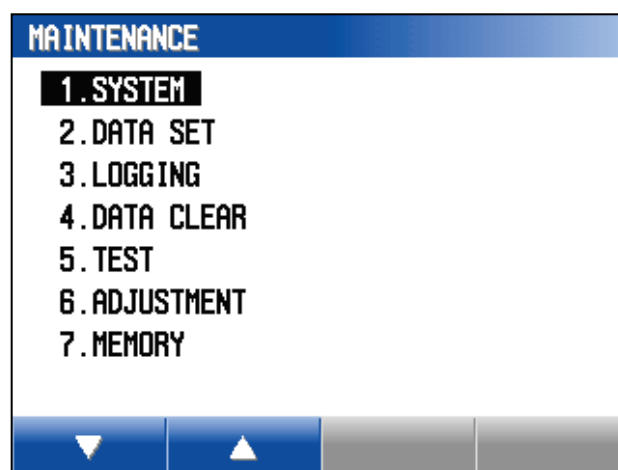
## I. How to enter Maintenance Mode

- (1) Enter SETTING Screen.
- (2) While pressing START/STOP key,  
press F2 key one time,  
press F3 key one time,  
press F4 key 5 times.
- (3) Press C key to go to SETTING Screen.



## II. How to select menu

- (1) Press F1 / F2 key or Jog-dial to select the menu.  
  
Selected menu is inverted.  
  
Press C key to back to previous Screen.
- (2) Press START/ STOP key to execute.



Menu	Contents
1. SYSTEM	Indication of FW version, Specification Data and Update
2. DATA SET	Internal Setting for memory switch.
3. LOGGING	Indication of logging data.
4. DATA CLEAR	Clearing of the memory data.
5. TEST	Testing of the sensors and drives.
6. ADJUSTMENT	Performing various adjustments.
7. MEMORY	Indication of memory data and download

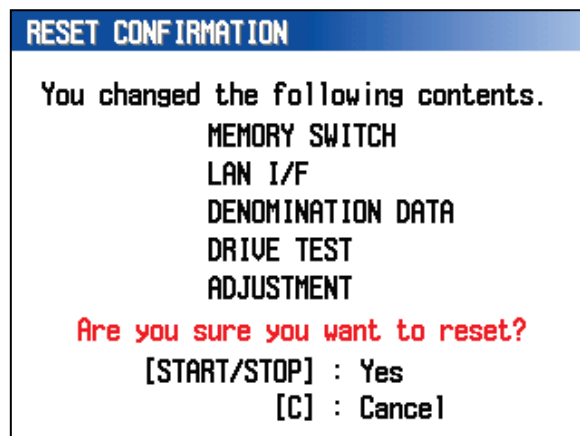
## LAC-17 MAINTENANCE MODE

### III. Reset

When any setting is done such as memory switch, I/F setting, currency data, any adjustment or test, the display may indicate RESET CONFIRMATION screen before go back to operation mode.

- (1) Press START/ STOP key to reset the machine.
- (2) Press C key to go back to MAINTENANCE Screen.

In case the display go back to Operation mode after termination of item, it automatically performs RESET CONFIRMATION without indicating the right screen.

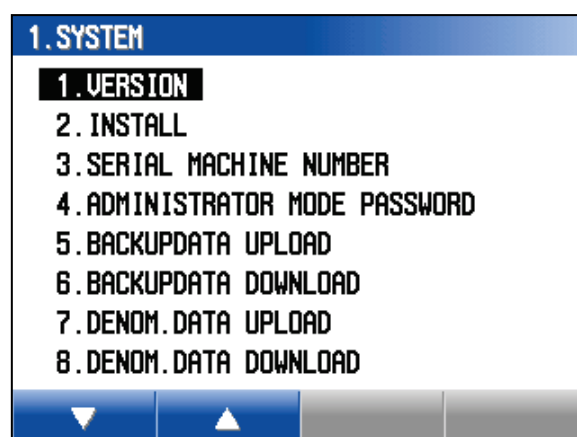


#### 1. SYSTEM

- (1) Select SYSTEM form MAINTENANCE menu.
- (2) Press START/STOP key and the display indicates the menu.

Press C key to go back to MAINTENANCE Screen.

Selected menu is inverted.



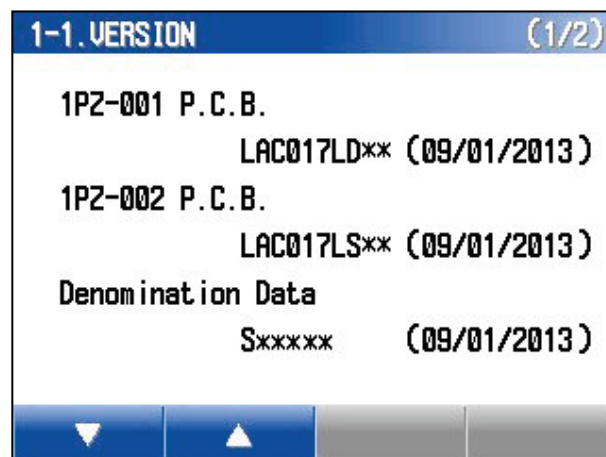
Menu	Contents
1.VERSION	Indication of FW version, date of update.
2.INSTALL	Updating of FW or Specification Data
3.SERIAL MACHINE NUMBER	Setting of Machine Serial Number.
4.ADMINISTRATOR MODE PASSWORD	Setting of Administrator Password.
5.BACKUPDATA UPLOAD	Uploading Back up data to CF card.
6.BACKUPDATA DOWNLOAD	Downloading Back up data from CF Card.
7.DENOM.DATA UPLOAD	Uploading Currency Data to CF card.
8.DENOM.DATA DOWNLOAD	Downloading Currency Data from CF Card.

# LAC-17 MAINTENANCE MODE

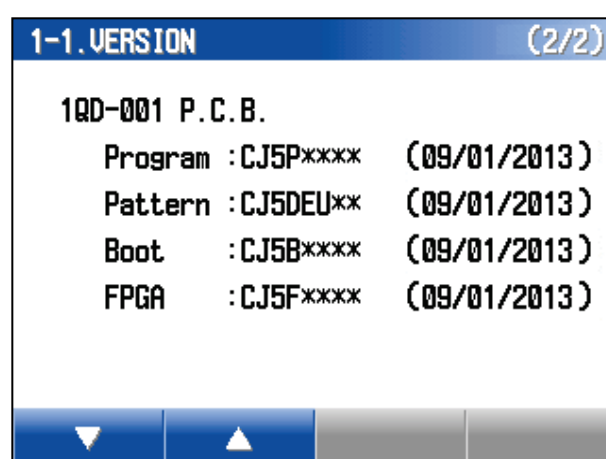
## 1-1. VERSION

(1) Select VERSION from SYSTEM Screen and press START / STOP key.

(2) Press F1 or F2 to scroll the screen.



(3) Press C key to go back to SYSTEM Screen.



### Description of Version

Board	Firmware Name	Version (Issue Date)
1PZ-001 PCB	Display Firmware	LAC017LDxx(MM.DD.YYYY)
1PZ-002 PCB	Main Firmware	LAC017LSxx(MM.DD.YYYY)
-	Denomination Data	Axxxxx (MM.DD.YYYY)
1QD-001 PCB	Validator Firmware	CJ5Pxxxx (MM.DD.YYYY)
	Currency Pattern	CJ5Dxxxx (MM.DD.YYYY)
	Boot Program	CJ5Bxxxx (MM.DD.YYYY)
	Validator FPGA	CJ5Fxxxx (MM.DD.YYYY)

xx: indicates correspond version .

Note) In case Denomination Data is not downloaded, it indicates "NO Data".

Note) In case Validator Firmware is damaged, it indicates "Unknown".

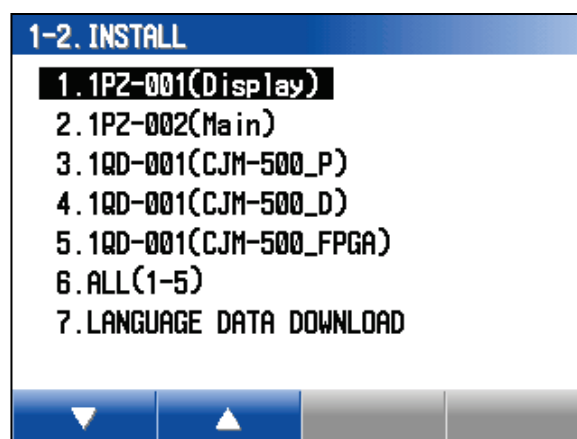
# LAC-17 MAINTENANCE MODE

## 1-2. INSTALL

- (1) Select INSTALL from SYSTEM and press START / STOP key.

The display indicates INSTAL menu.

Note) Above screen is for LAC-17ID.  
In case LAC-17, it does not indicates 3 to 5 1QD-001.



Menu	Contents
1.1PZ-001(Display)	It updates Display Firmware.
2.1PZ-002(Main)	It updates Main Firmware.
3.1QD-001(CJM-500_P)	It updates Validator firmware.
4.1QD-001(CJM-500_D)	It updates Currency Pattern.
5.1QD-001(CJM-500_FPGA)	It updates Validator FPGA.
6. ALL (1-5)	It update selected firmware in a lump.
7.LANGUAGE DATA DOWNLOAD	It download Language data.

## FIRMWARE INSTALL

- (1) Put CF Card to CF Card slot .

The Firmware file is saved in LAC folder in CF Card.

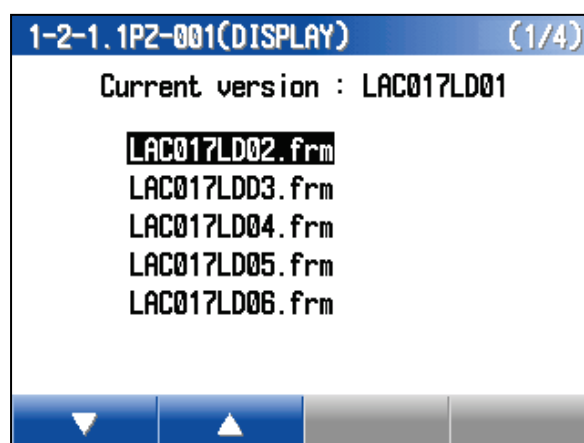
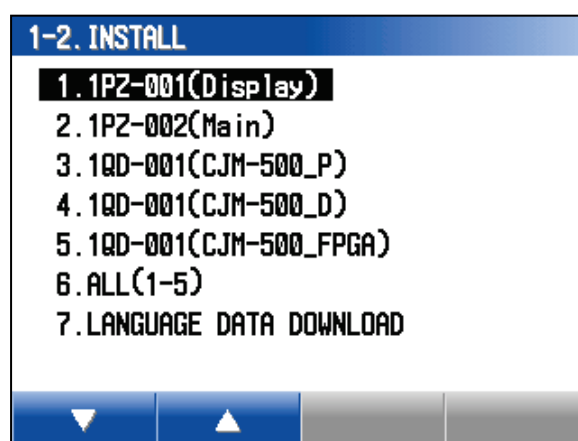
The CF Card slot is the left side of operation panel.

- (2) Select type of firmware to be install and press START / STOP key.

1 to 5 for LAC-17ID  
1 to 2 for LAC-17

- (3) Select version of firmware and press START / STOP key.

Press C key to go back to previous screen.



## LAC-17 MAINTENANCE MODE

- (4) Press START / STOP key again to start installation.

Press C key to go back to previous screen.

### 1-2-1.1PZ-001(DISPLAY)

Current version : LAC017LD01  
Install version : LAC017LD02

< LAC017LD02.frm >

[START/STOP] : Install  
[C] : Cancel

- (5) During installation, the display indicates screen on the right.

### 1-2-1.1PZ-001(DISPLAY)

Writing program...  
Please wait...



65 %

Do not turn off power.

- (6) When update completes normally, the display indicates "Install completed!".

- (7) Press START / STOP key or C key to go back to operation screen.

It automatically perform RESET.  
RESET screen does not indicate.

### 1-2-1.1PZ-001(DISPLAY)

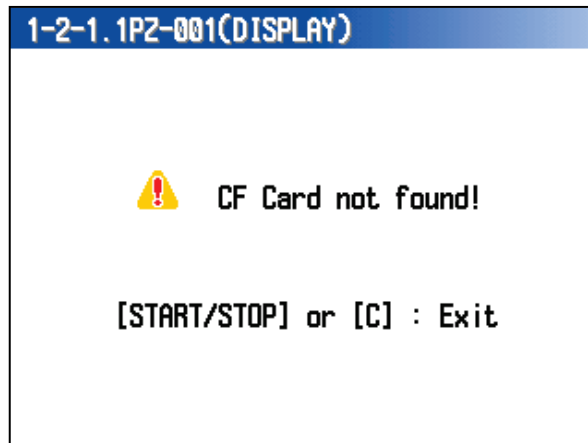
Current version : LAC017LD02

Install completed!

[START/STOP] or [C] : Reset

# LAC-17 MAINTENANCE MODE

In case right error message appears, set CF Card to the card slot.

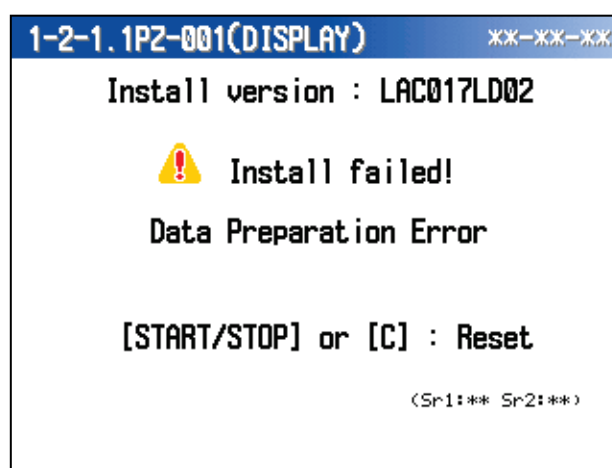


List of Message for CF Card Access Error

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File not found!	There is not file which is able to install.
Too many files!	The files are too much.
Access error!	Other abnormality.

In case firmware update fails, the display indicates "Install failed!".

Press START / STOP key or C key to go back to operation screen.



List of Message for Install Error

Message	Contents
Data Preparation Error	While preparation of transmission
Data Transmission Error	While transmission
Writing Error	While writting
Unknown	Other than above



# LAC-17 MAINTENANCE MODE

## ALL (1-X)

- (1) Select INSTALL from SYSTEM menu and press START / STOP key.

- (2) Put CF Card to CF Card slot

The Firmware file is saved in LAC folder in CF Card.

The CF Card slot is the left side of operation panel.

- (3) Select ALL (1-5) from INSTAL menu and press Start /Stop key.

ALL (1-5) is for LAC-17ID.

ALL (1-2) for LAC-17.

Press C key to go back to INSTALL menu..

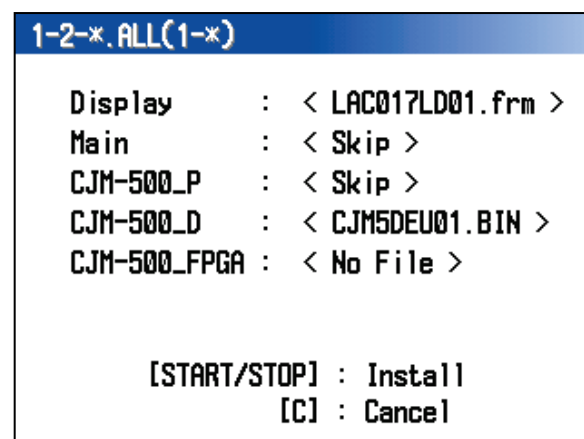
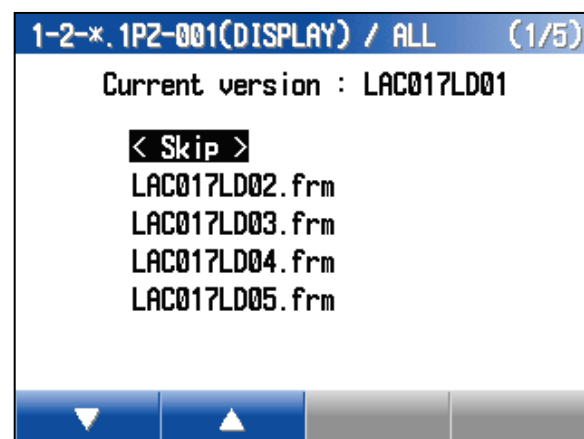
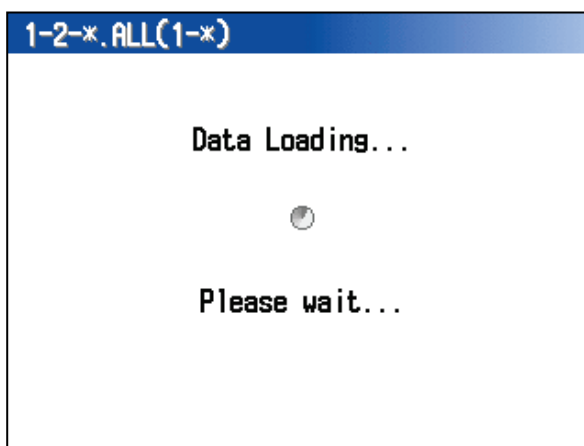
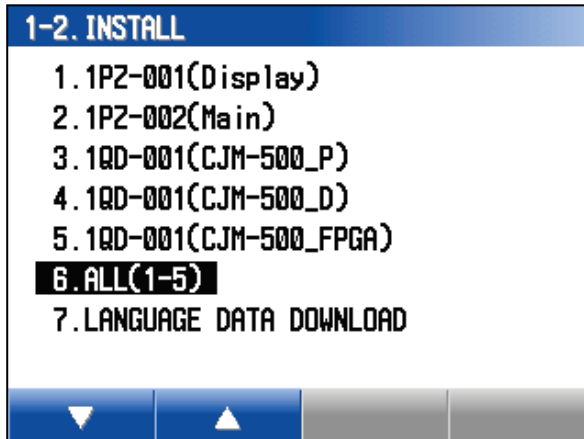
- (4) Select firmware and press START /STOP key.

If <Skip> is selected, it does not update the firmware.

- (5) Select next firmware and press START / STOP key.

Select Display, Mechanism, CJM-500\_P, CJM-500\_D, CJM-500\_FPGA firmwre in order.

- (6) After setting all firmwares, press START /STOP key to install the firmwares.



# LAC-17 MAINTENANCE MODE

(6) When firmwares are installed normally, the display indicates "Install completed!"

(7) Press START / STOP key to go back to operation mode.

## 1-2-\*.ALL(1-\*)

Display : < LAC017LD01.frm >  
Main : < Skip >  
CJM-500\_P : < Skip >  
CJM-500\_D : < CJM5DEU01.BIN >  
CJM-500\_FPGA : < No File >

Install completed!

[START/STOP] or [C] : Reset

In case right error message appears, set CF Card to the card slot.

## 1-2-\*.ALL(1-\*)



CF Card not found!

[START/STOP] or [C] : Exit

List of Message for CF Card Access Error

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File not found!	There is not file which is able to install.
Too many files!	The files are too much.
Access error!	Other abnormality.

In case update firmware fails, the display indicates "Install failed!".

Press START / STOP key or C key to go back to operation screen.

## 1-2-\*.1P2-001(DISPLAY) / ALL \*\*-\*-\*

Install version : LAC017LD02



Install failed!

Data Preparation Error

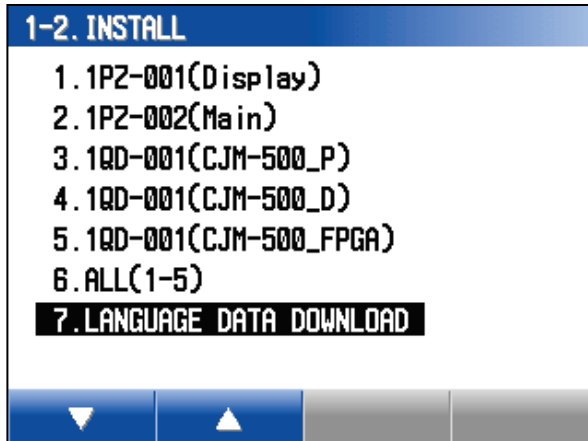
[START/STOP] or [C] : Reset

(Sr1:\*\*\* Sr2:\*\*\*)

# LAC-17 MAINTENANCE MODE

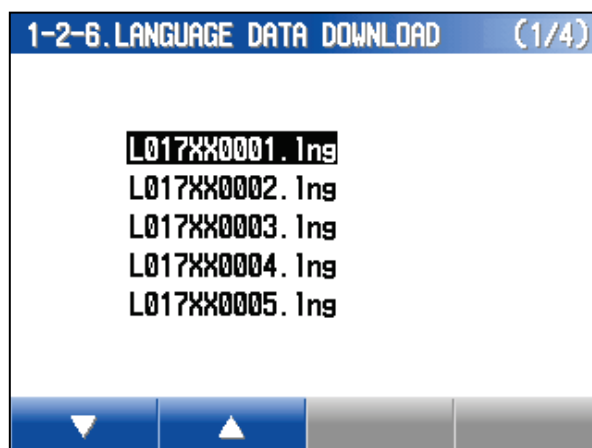
## Language Data Download

- (1) Select LANGUAGE DATA DOWNLOAD from INSTAL menu.



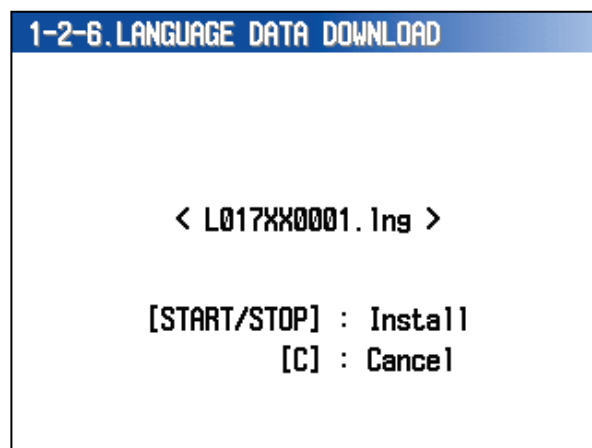
- (2) Select LANGUAGE DATA file and press START / STOP key .

Press C key to go back to previous screen.



- (3) Press START / STOP key to start install.

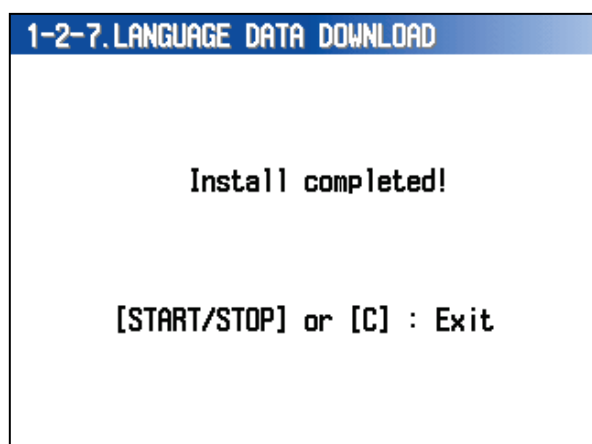
Press C key to go back to previous screen.



- (4) When update completes normally, the display indicates "Install completed!"

Press START / STOP key to go back operation mode.

It automatically perform RESET.  
RESET screen does not indicates.



# LAC-17 MAINTENANCE MODE

In case right error message appears, set CF Card to the card slot.

Press START / STOP or C key to go back previous Screen.

## 1-2-6. LANGUAGE DATA DOWNLOAD



**CF Card not found!**

**[START/STOP] or [C] : Exit**

List of Message for CF Card Access Error

Message	Contents	
CF Card not found!	No card The card is removed. Status is chaged abnormally.	EVA_NOMEDIA EVA_CHGMEDIA EVA_STCHG
Too many files!	The files are too much.	E_ETYOVF
Access error!	Other abnormality.	Other than above

In case, update langage data failes, the display indicates "Install failed!".

Press START / STOP C key to go back to operation mode.

## 1-2-7. LANGUAGE DATA DOWNLOAD



**Install failed!**

**Data Preparation Error**

**[START/STOP] or [C] : Exit**

(State:\*\*\*\*)

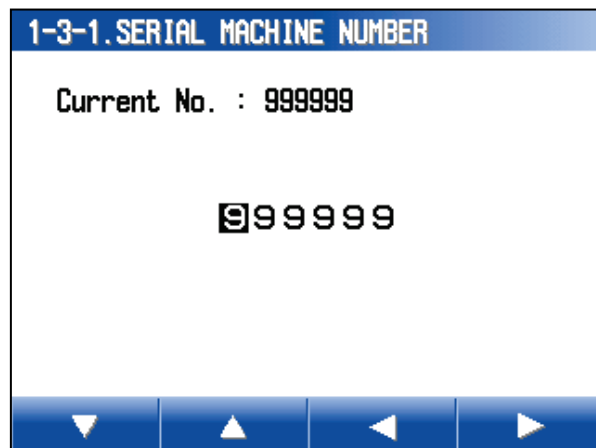
List of Message for status

Message	Contents
Data Preparation Error	While preparation of transmission
Data Transmission Error	While transmission
Writing Error	While writting
Writing Error	Other than above

## LAC-17 MAINTENANCE MODE

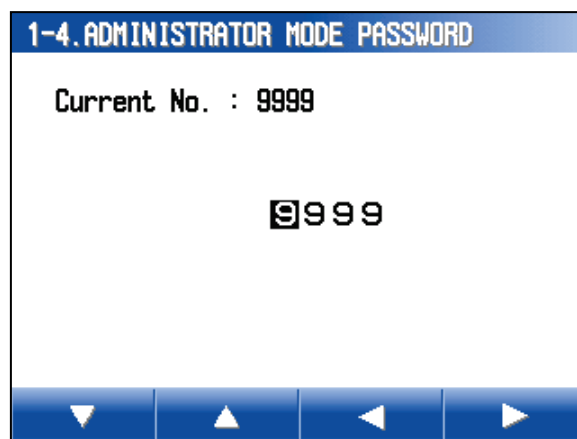
### 1-3. SERIAL NUMBER SETTING

- (1) Select SERIAL MACHINE NUMBER from SYSTEM menu and press START / STOP key.
- (2) Select the number by F1 / F2 key or Jog Dial. Move the digit by F3 / F4 key. Set 6 digits of machine serial number.
- (3) After setting machine number, press START / STOP key to save the number.
- (4) Press C key to go back to SYSTEM Screen.



### 1-4. ADMINISTRATOR MODE PASSWORD

- (1) Select ADMINSTRATOR MODE PASSWORD from SYSTEM manu and press START / STOP key.
- (2) Select the number by F1 / F2 key or Jog Dial. Move the digit by F3 / F4 key. Set 4 digits of machine serial number.
- (3) After setting administrator mode password number, press START / STOP key to save the number.
- (4) Press C key to go back to SYSTEM Screen.



# LAC-17 MAINTENANCE MODE

## 1-5. BACKUPDATA UPLOAD

BACKUPDATA UPLOARD makes clone of data.  
When Backup data download, completely restore all data.

When Display CPU PCB 1PZ-001 and/or Main PCB 1PZ-002 is replaced, save the setting data by BACKUPDATA UPLOARD in advance. Then after the boards replacement, the setting data will be back to the new boards by 1-6 BACKUPDATA DOWNLOAD.  
Contents of setting data is following.

- Memory SW Setting
- Logging Data
- Denomination Date
- Various internal setting (Contrast, Beep Sound etc.)
- Passwords Data
- External I/F Setting

### Note:

If install several units in one place, you can make clone which same setting of LAC-17 if download original data to other LAC-17.

But, please set Serial Number again by "1-3-1. Serial Machine Number" due to serial number overwrited.

(1) Select BACKUPDATA UPLOARD from System Menu and press START / STOP.

(2) Set CF Card to CF Card Slot.

(3) Press START / STOP to save the backupdata to CF Card.

Backup data is saved the folder named LAC.  
File Size:8,192Byte

If there is no folder named LAC, it create the folder automatically.

Press C key to go back to System Menu.

(4) When backupdata completes, the display indicates "Backupdata saved."

START / STOP key or C key to go back System Menu.

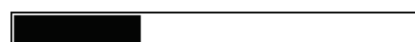
### 1-5. BACKUPDATA UPLOAD

Please set the CF Card  
before saving.

[START/STOP] : Save  
[C] : Cancel

### 1-5. BACKUPDATA UPLOAD

Saving data to the CF Card.  
Please wait...



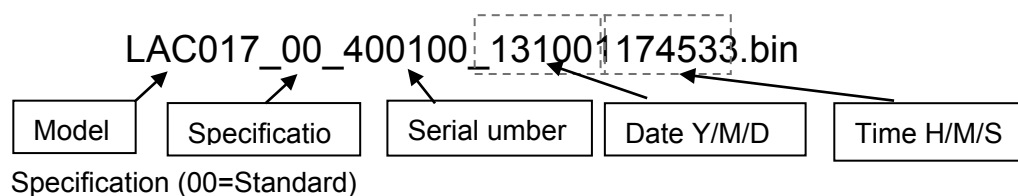
25 %

### 1-5. BACKUPDATA UPLOAD

Backup data saved.

[START/STOP] or [C] : Exit

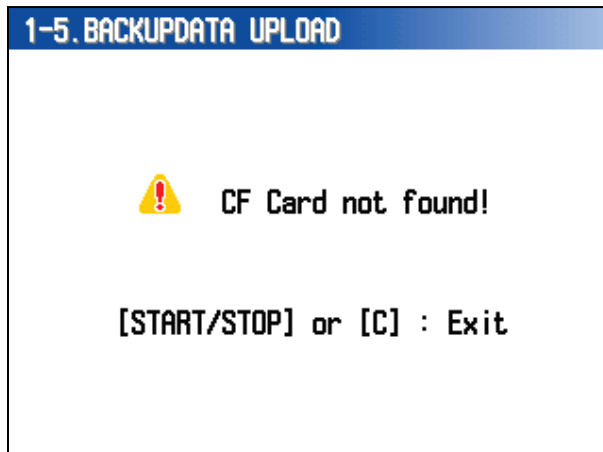
Composition of Backupdata file named :



# LAC-17 MAINTENANCE MODE

In case right error message appears, set CF Card to the card slot.

Press START / STOP or C key to go back System Menu.



List of Message for CF Card Access Error.

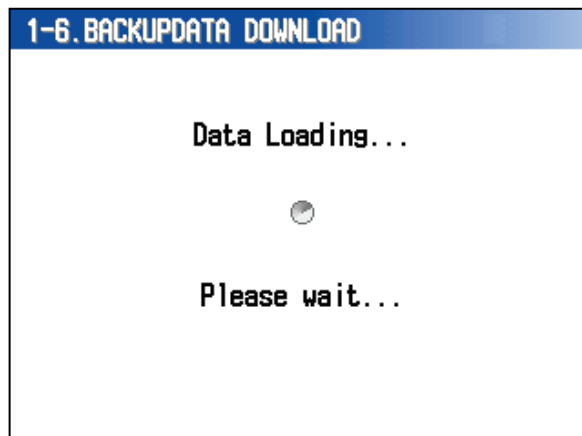
Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File exists!	Same file name is exist.
CF Card full!	CF Card is full. Insufficient memory.
Access error!	Other abnormality.

# LAC-17 MAINTENANCE MODE

## 1-6. BACKUPDATA DOWNLOAD

Saved Backupdata by BACKUPDATA UPLOAD is downloaded to other machine.

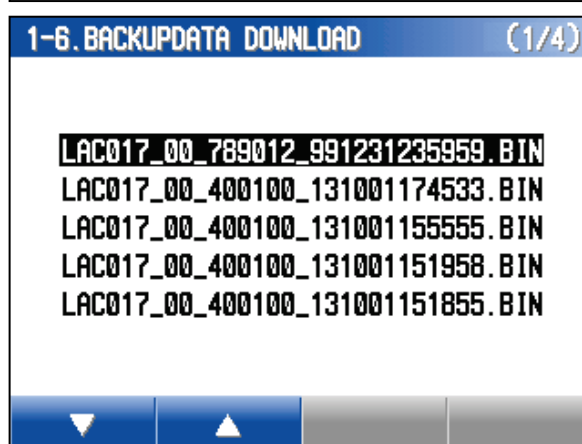
- (1) Select BACKUPDATA DOWNLOAD from SYSTEM menu and press START / STOP key.



- (2) Select a Backupdata and press START / STOP key.

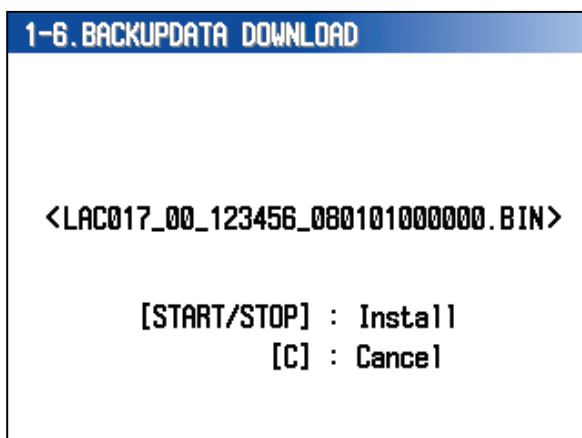
Press C key to go back to System menu.

Selected file is inverted.



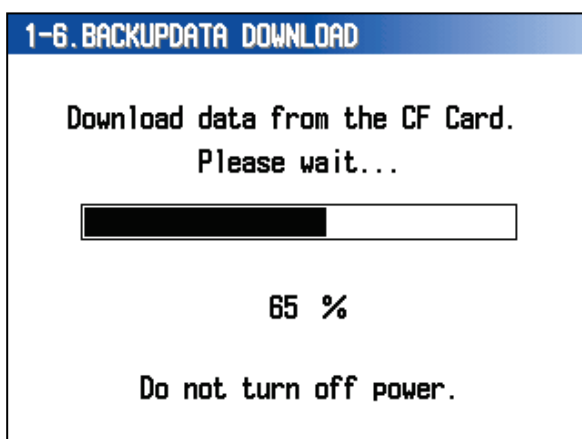
- (3) Make sure the file name and press START / STOP key to start download.

Press C key to go back to SYSTEM menu.



- (4) When download completes normally, the display indicates "Install completed!".

Press START / STOP key or C key to go back to operation mode.





# LAC-17 MAINTENANCE MODE

In case error, display indicates error message.

Press START / STOP key or C key to go back System Menu.

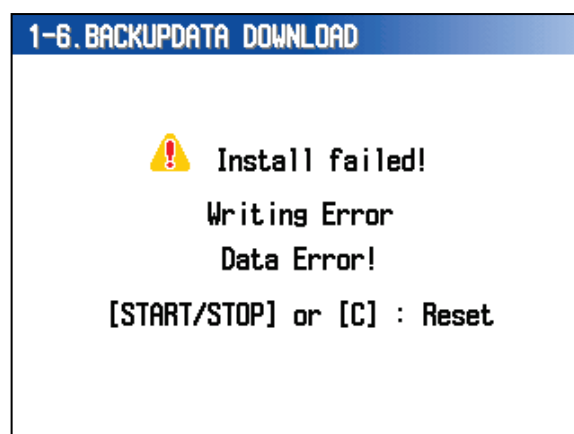


List of Message for CF Card Access Error

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File not found!	There is not file which is able to install.
Too many files!	The files are too much.
Access error!	Other abnormality.

In case, the download fails, the display indicates "Install failed!".

Press START / STOP key or C key to go back to operation mode.



List of Message for status

Message	Contents
Writing Error	While writting

List of Message for error

Message	Contents
Data error!	Backupdata is abnormal.

# LAC-17 MAINTENANCE MODE

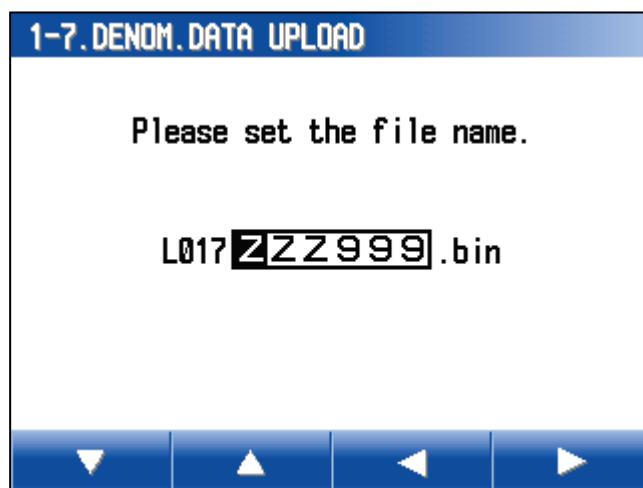
## 1-7. DENOM.DATA UPLOAD

(1) Select DENOM.DATA UPLOAD from SYSTEM menu and press START / STOP key.

(2) Input Denomination Data file name 0 to 9 , A to Z by pressing F1 /F2 key or Jog Dial and move the digit by F3 /F4 key.

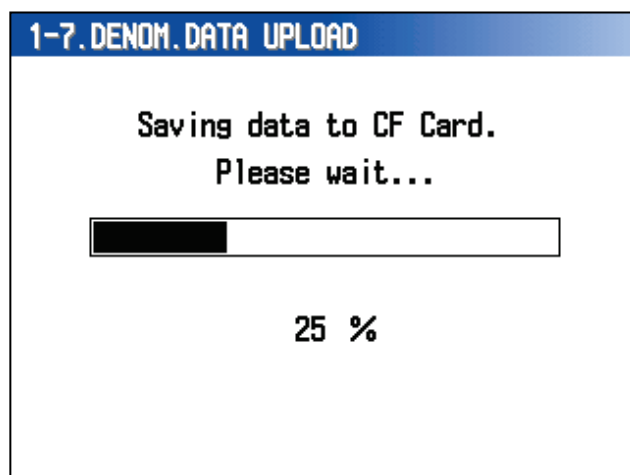
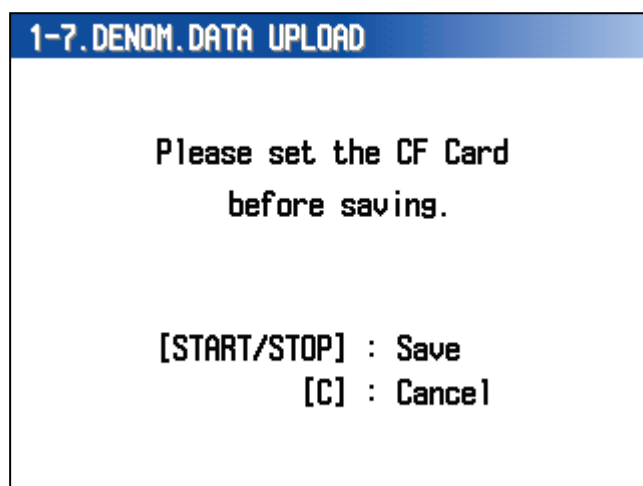
(3) Press START / STOP key after input file name.

Press C key to go back to SYSTEM memu.



(4) Set CF Card to Card Slot and press START / STOP key to start uploading DENOM. DATA file

Press C key to go back to SYSTEM menu.



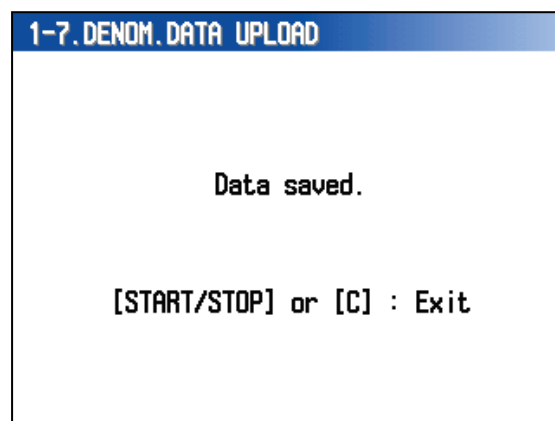
## LAC-17 MAINTENANCE MODE

- (4) When upload is completed, the display indicates "Data saved."

Backup data is saved the folder named LAC.

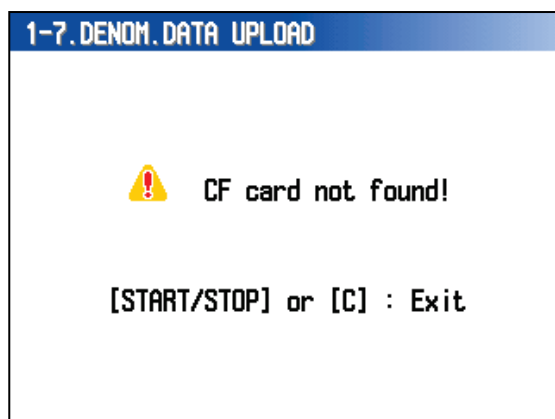
If there is no folder named LAC, it create the folder automatically.

Press START / STOP key or C key to go back to SYSTEM menu.



In case right error message appears, set CF Card to the card slot.

Press START / STOP or C key to go back System Menu.



List of Message for CF Card Access Error.

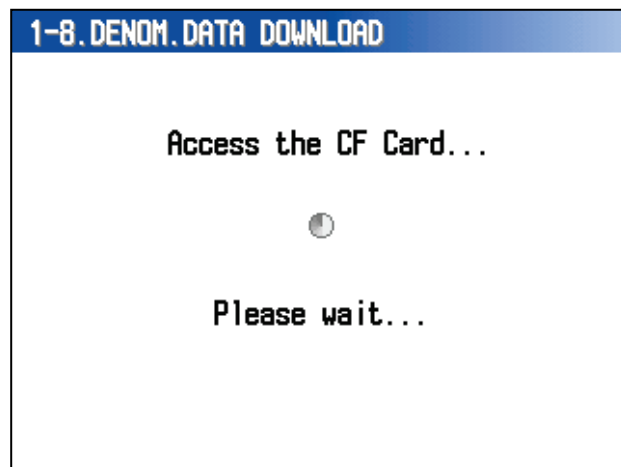
Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File exists!	Same file name is exist.
CF Card full!	CF Card is full. Insufficient memory.
Access error!	Other abnormality.

# LAC-17 MAINTENANCE MODE

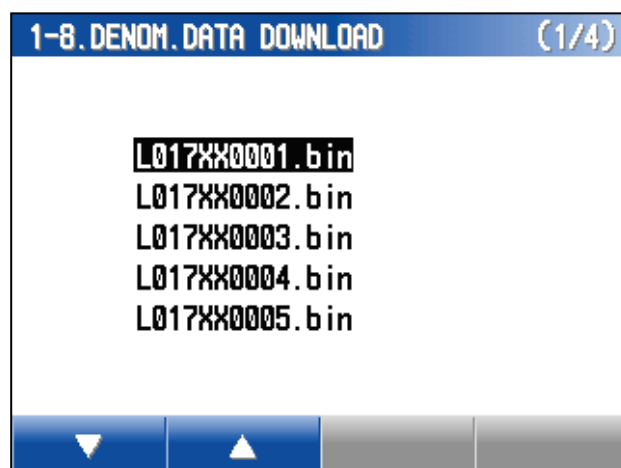
## 1-8. DENOM.DATA DOWNLOAD

Saved DENOM. DATA by DENOM. DATA UPLOAD is downloaded to other machine.

- (1) Put CF Card to Card Slot.
- (2) Select DENOM.DATA DOWNLOAD from System Menu and press START / STOP key.



- (3) Select DENOM. DATA file and Press START / STOP key.



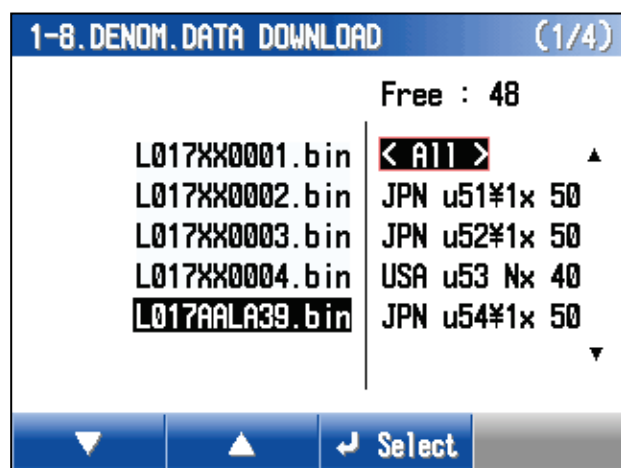
In case Local Teaching Mode (Option) is available, the display indicates as the right screen.

Select USER DENOM. DATA and press F3 key.

You can select <ALL> or individually each USER DENOM. DATA.

After selecting USER DENOM. DATA and press START / STOP key.

Press C key to go back previous screen.



**LAC-17 MAINTENANCE MODE**

- (4) Press START / STOP key to start download DENOM. DATA

Press C key to go back to previous screen.

**1-8. DENOM. DATA DOWNLOAD**

<L017XX0001.bin>

[START/STOP] : Install

[C] : Cancel

**1-8. DENOM. DATA DOWNLOAD**

Download data from the CF Card.

Please wait...



1 %

Do not turn off power.

- (5) When download completes normally, the display indicates "Install completed".

**1-8. DENOM. DATA DOWNLOAD**

Install completed!

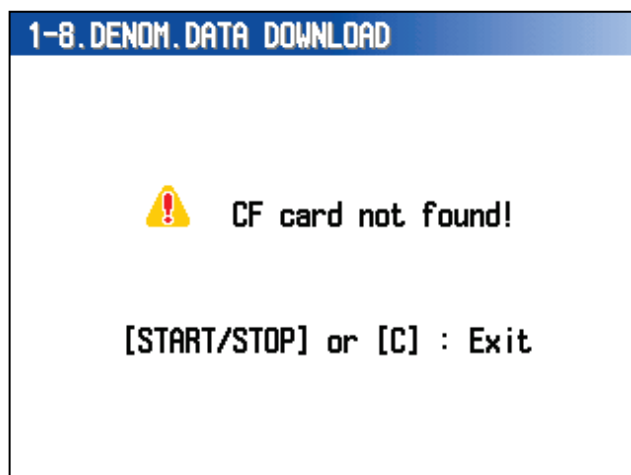
- (6) Press START / STOP key or C key.

[START/STOP] or [C] : Reset

# LAC-17 MAINTENANCE MODE

If it fails CF Card access, the display indicates error message.

- (7) Press START / STOP key or C key to go back to System Menu.

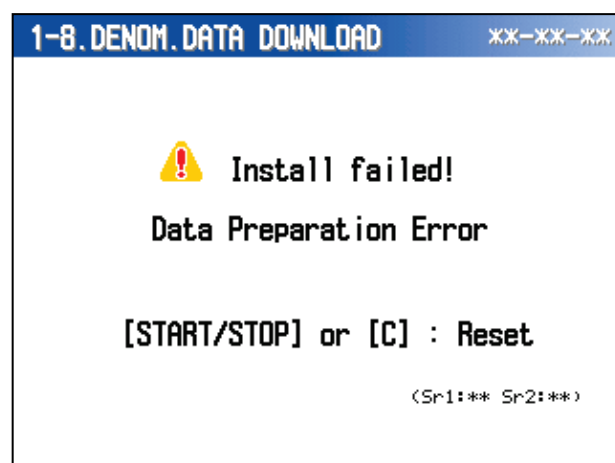


List of Message for CF Card Access Error.

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
Too many files!	The files are too much.
Access error!	

In case, the download fails, the display indicates "Install failed!".

Press START / STOP key or C key.



List of Message for status

Message	Contents
Data Preparation Error	While preparation of transmission
Data Transmission Error	While transmission
Writing Error	While witting
Unknown	Other than above

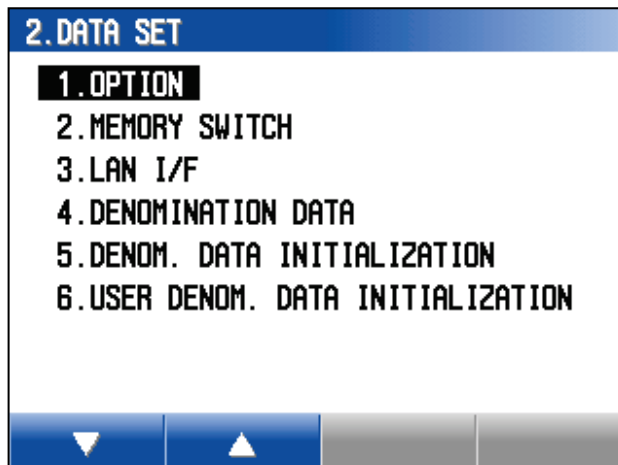
# LAC-17 MAINTENANCE MODE

## 2. DATA SET

- (1) Select DATA SET from MAINTENANCE menu.
- (2) Select a item in DATA SET Menu by F1 / F2 key or Jog Dial.
- (3) Press START / STOP key to execute.

Press C key to go back to previous screen.

LAN I/F does not indicates when memory switch 14 bit 0 is OFF.

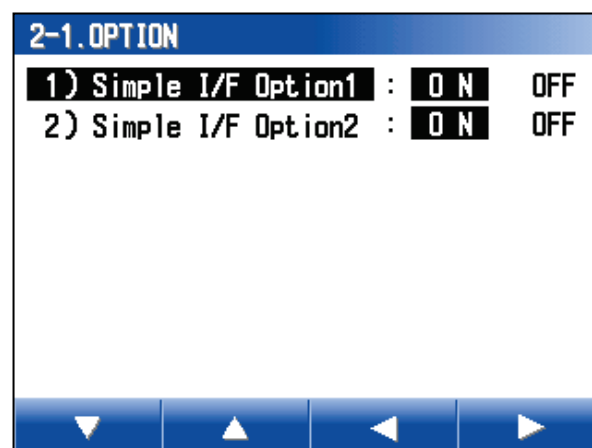


Menu	Contents
1.OPTION	Option Setting
2.MEMORY SWITCH	Memory Switch Setting
3.LAN I/F	LAN I/F Setting
4.DENOMINATION DATA	DENOM. DATA Setting
5.DENOM. DATA INITIALIZATION	DENOM. DATA initialization accord Security Chip data.
6.USER DENOM. DATA INITIALIZATION	USER DENOM. DATA clear. Only for Local Teaching Mode (Option)

### 2-1. OPTION

- (1) Select OPTION from DATA SET menu and press START /STOP key
- (2) Select a item by F1 / F2 or Jog Dial.
- (3) Set ON or OFF by F3 / F4 key.
- (4) Press START / STOP key to save the setting.

Press C key to go back to previous screen.



Menu	Contents
1) Simple I/F Option1	Setting to disable START / STOP key .
2) Simple I/F Option2	Setting to disable Roll Chute Gate open automatically.

# LAC-17 MAINTENANCE MODE

## 2-2. MEMORY SWITCH

- (1) Select MEMORY SWITCH from DATA SET menu.
- (2) Select a SW.
- (3) Move the cursor by F3 / F4 key..
- (4) Set each bit by F1 / F2 key or Jog Dial.

2-2.MEMORY SWITCH		(1/3)							
		Bit	7	6	5	4	3	2	1 0
1)	SW 1:	6FH	0	1	1	0	1	1	1 1
2)	SW 2:	58H	0	1	0	1	1	0	0 0
3)	SW 3:	2FH	0	0	1	0	1	1	1 1
4)	SW 4:	60H	0	1	1	0	0	0	0 0
5)	SW 5:	50H	0	1	0	1	0	0	0 0
6)	SW 6:	10H	0	0	0	1	0	0	0 0

Move the Cursor to the left.  
Then you can select next SW for setting.

2-2.MEMORY SWITCH		(2/3)							
		Bit	7	6	5	4	3	2	1 0
7)	SW 7:	60H	0	1	1	0	0	0	0 0
8)	SW 8:	11H	0	0	0	1	0	0	0 1
9)	SW 9:	20H	0	0	1	0	0	0	0 0
10)	SW 10:	6DH	0	1	1	0	1	1	0 1
11)	SW 11:	6CH	0	1	1	0	1	1	0 0
12)	SW 12:	10H	0	0	0	1	0	0	0 0

- (6) Press START / STOP to save the setting.

Press C key to go back to previous screen.

2-2.MEMORY SWITCH		(3/3)							
		Bit	7	6	5	4	3	2	1 0
13)	SW 13:	3FH	0	0	1	1	1	1	1 1
14)	SW 14:	20H	0	0	1	0	0	0	0 0
15)	SW 15:	7CH	0	1	1	1	1	1	0 0
16)	SW 16:	3FH	0	0	1	1	1	1	1 1



## LAC-17 MAINTENANCE MODE

### 2-3. LAN I/F

(1) Select 2-3. LAN I/F from DATA SET menu.

(2) Select TCP/IPP or UOP by F3 / F4 key.

(3) Change the value by F1/ F2 key or Jog Dial.

If UDP is selected, it is possible to set:

- 6) Remort IP
- 7) Remort Port
- 8) Device Ch.

2-3. LAN I/F

1) Protocol	: TCP	UDP
2) IP	: 192 . 168 . 0 . 1	
3) Subnet Mask	: 255 . 255 . 255 . 0	
4) Def. Gateway	: 0 . 0 . 0 . 0	
5) Port	: 10,001	
6) Remote IP	: 192 . 168 . 0 . 254	
7) Remote Port	: 10,002	
8) Device Ch.	: 250	

Navigation buttons: Down, Up, Left, Right

(4) Press START / STOP key to save the setting.

Press C key to go back to previous screen.

Menu	Content												
1) Protocol	<ul style="list-style-type: none"> <li>Setting Communication Protocol(TCP, UDP)</li> <li>Default:TCP</li> </ul>												
2) IP	<ul style="list-style-type: none"> <li>Setting exclusive number in the network.</li> <li>Default:192.168.0.1</li> </ul>												
3) Subnet Mask	<ul style="list-style-type: none"> <li>Mask setting for host about IP Address</li> <li>Default:255.255.255.0</li> </ul>												
4) Def.Gateway	<ul style="list-style-type: none"> <li>Setting IP address of the router for outside LAN network. (Setting IP address of the router for LAN side.)</li> <li>When the operation is only in LAN side, set "0, 0, 0, 0"</li> <li>Default:0.0.0.0</li> </ul>												
5)Port Note ) The setting is valid when Memory Switch 12 bit 4 is set ON.	<ul style="list-style-type: none"> <li>When MSW 12 bit 4 is OFF, 10.001 fixed.</li> <li>When MSW12 bit 4 is ON, the setting is valid.</li> <li>※It is prohibited to assign following port number.</li> <li>&lt;Prohibited Port Number&gt;</li> </ul> <table border="1"> <tr> <th>Port Number</th><th>Contents</th></tr> <tr> <td>1 – 1023</td><td>Reserved(well known ports)</td></tr> <tr> <td>9999</td><td>Reserved(Unpublished)</td></tr> <tr> <td>14000 - 14009</td><td>Reserved for Redirector</td></tr> <tr> <td>30704</td><td>Reserved(77F0h)</td></tr> <tr> <td>30718</td><td>Reserved(77FEh)</td></tr> </table> <ul style="list-style-type: none"> <li>Acceptable range:00,000~65,535</li> <li>Default:10,001(10,001-10,002 are recommended.)</li> </ul>	Port Number	Contents	1 – 1023	Reserved(well known ports)	9999	Reserved(Unpublished)	14000 - 14009	Reserved for Redirector	30704	Reserved(77F0h)	30718	Reserved(77FEh)
Port Number	Contents												
1 – 1023	Reserved(well known ports)												
9999	Reserved(Unpublished)												
14000 - 14009	Reserved for Redirector												
30704	Reserved(77F0h)												
30718	Reserved(77FEh)												
6) Remote IP	<ul style="list-style-type: none"> <li>Setting Remote IP Address for UDP.</li> <li>Default:192.168.0.255</li> </ul>												
7) Remote Port	<ul style="list-style-type: none"> <li>Setting Remote Port number for UDP.</li> <li>Default:10,002</li> </ul>												
8) Device Ch.	<ul style="list-style-type: none"> <li>Setting exclusive Device Ch for UDP.</li> <li>Default:0 (Acceptable range: 0 -255.)</li> </ul>												

## LAC-17 MAINTENANCE MODE

### 2-4. DENOMINATION DATA (Option: Local Teaching Function)

- (1) Select DENOMINATION DATA from DATA SET menu.

Total 64 denomination can be added to the denomination data.

The added denomination indicates <USER> in the menu.

When the existed denomination data is customized, the denomination indicates <\*> in the menu.

- (2) Select Denomination which you want customize the data by F1 / F2 key or Jog Dial.

When you create new denomination, select <New Data> .

- (3) Press START / STOP key.

Press C key to go back previous screen.

- (4) Select a item which you want to change in the menu.

- (5) Change the value by F3 / F4 key.

- (6) Press START / STOP key to save the data.

Press C key to go back to previous screen.

If the value is not acceptable, it indicates red color and it does not save the data.

For the setting of 1) Currency and 2) Name, the character changes as following order;

\* + , - . / 0 1 2 3 4 5 6 7 8 9 : < = > ? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [ \ ] ^ \_ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ s ! " # \$ % & ' ( )

**2-4. DENOMINATION DATA (1/8)**

**< New Data >**

1. EUR	0.01x 50	
2. EUR	0.02x 50	
3. EUR	0.05x 50	
4. EUR	0.1x 40	<*>
5. EUR	0.2x 40	
6. EUR	0.5x 40	
7. abc	ABC00x 35	<USER>

**2-4. DENOMINATION DATA**

No. \*\*

1) Currency	: ***
2) Name	: *****
3) Diameter	: 38.00mm
4) Thickness	: 3.50mm
5) Wrap pcs	: 50pcs
6) Paper Width	: 150mm
7) Coin Shape	: FFH
8) Code	: 0000AB0A

Item	Description	Acceptable Value
1. Currency	Currency Name	Input Currency (Ex. EUR, USD)
2. Name:	Denomination Name	Input denomination name
3. Diameter	Coin diameter	
4. Thickness	Coin thickness	1.00 to 3.50mm
5. Wrap pcs	Number of coins per roll	1 to 50 pcs. Input data 1 roll of height + 23mm
6. Paper Width	Roll Paper Width	0 to 150mm
7. Coin Shape	Coin Shape Type	No need set data
8. Code	Internal code for LAC-17ID	Normally no need set data
9. Wrapping Method		
10. Paper Feed Tim		

- (7) When new denomination is created by LAC17ID, perform Sampling Adjustment for new denomination. Refer to ID Sensor Adjustment in online manual.  
Without this adjustment, LAC-17ID rejects all new denomination.

## LAC-17 MAINTENANCE MODE

### 2-5. DENOM. DATA INITIALIZATION

(1) Select DENOM. DATA INITIALIZATION form DATA SET menu.

(2) Press START / STOP key.

Press C key to go back to previous screen.

(3) Press START / STOP key to clear the DENOM. DATA.

#### 2-5. DENOM. DATA INITIALIZATION

Are you sure to  
initialize the data?

[START/STOP] : Clear  
[C] : Cancel

#### 2-5. DENOM. DATA INITIALIZATION

**START/STOP**

Press the key

### 2-6. USER DENOM. DATA INITIALIZATION

(1) Select USER DENOM. DATA INITIALIZATION form DATA SET menu.

(2) Press START / STOP key.

Press C key to go back to previous screen.

(3) Press START / STOP key to clear the USER DENOM. DATA INITIALIZATION.

#### 2-6. USER DENOM. DATA INITIALIZATION

Are you sure to  
initialize the data?

[START/STOP] : Clear  
[C] : Cancel

#### 2-6. USER DENOM. DATA INITIALIZATION

**START/STOP**

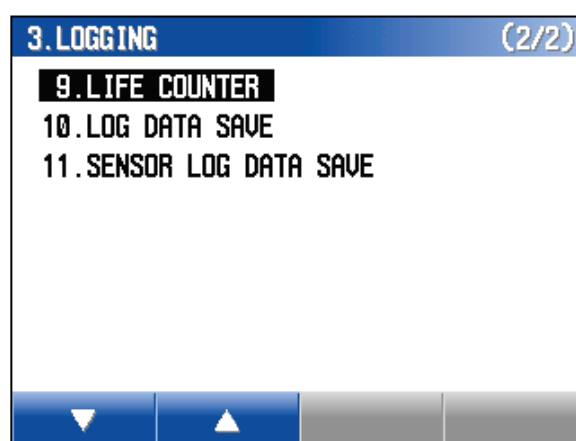
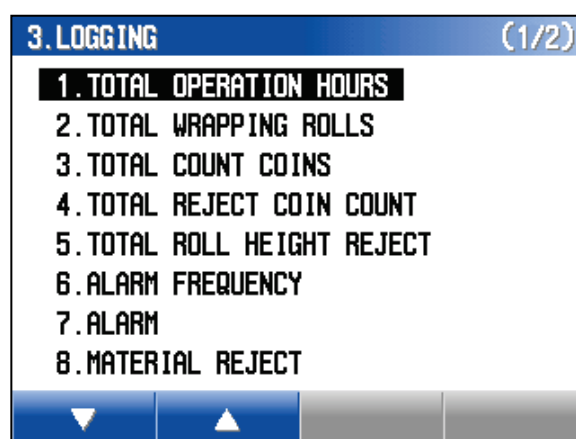
Press the key

# LAC-17 MAINTENANCE MODE

## 3. LOGGING

- (1) Select LOGGING from MAINTENANCE menu by F1 / F2 key or Jog Dial.
- (2) Select a item in LOGGING menu by F1 / F2 key or Jog Dial.
- (3) Press START / STOP key to excecute the item.

Press C key to go back to MAINTENANCE Screen.



Menu	Description
1. TOTAL OPERATION HOURS	Total operation hours
2. TOTAL WRAPPING ROLLS	Total Wrapping Roll for each denomination.
3. TOTAL COUNT COINS	Total Count for each denomination.
4. TOTAL REJECT COIN COUNT	Total material detection reject for each denomination
5. TOTAL ROLL HEIGHT REJECT	Total coin roll height reject for each denomination
6. ALARM FREQUENCY	Number of error occurrences for each alarm code.
7. ALARM	The latest 100 alarm code
8. MATERIAL REJECT	Cause of Material Detection Reject
9. LIFE COUNTER	Life counter Log
10.LOG DATA SAVE	Uploading Log Data to CF Card
11.SENSOR LOG DATA SAVE	Uploading Sensor Log to CF Card

Note) Date Format (MM/DD/YYYY) for each item is correspond to date format setting.

# LAC-17 MAINTENANCE MODE

## 3-1. TOTAL OPERATION HOURS

- (1) Select TOTAL OPERATION HOURS from LOGGING menu.
- (2) Press START / STOP key to indicate the operation hours
- (3) Press C key to go back to previous screen.

3-1. TOTAL OPERATION HOURS	
(Clear : 12/31/2099)	
Operation	: 999,999 H 59 min
Wrapping	: 999,999 H 59 min
Counting	: 999,999 H 59 min
Total Wrap	: 4,294,967,295 rolls
Total Count	: 4,294,967,295 pcs

Menu	Contents
Operation	Total power on hours
Wrapping	Total wrapping operation hours
Counting	Total counting operation hours
Total Wrap	Total coin roll
Total Count	Total coin count

## 3-2. TOTAL WRAPPING ROLLS

- (1) Select TOTAL WRAPPING ROLLS from LOGGING menu.
- (2) Press START / STOP key.  
  
It indicates total of wrapping roll for each denomination.
- (3) Press C key to go back to previous screen.

3-2. TOTAL WRAPPING ROLLS		( 1/** )
(Clear : 12/31/2099)		
<b>[Total]</b>	:	4,294,967,295 rolls
JPN o¥500x 50	:	4,294,967,295 rolls
JPN o¥500x 20	:	4,294,967,295 rolls
JPN n¥500x 50	:	4,294,967,295 rolls
JPN n¥500x 20	:	4,294,967,295 rolls
JPN ¥100x 50	:	4,294,967,295 rolls

## 3-3. TOTAL COUNT COINS

- (1) Select TOTAL COUNT COINS from LOGGING menu.
- (2) Press START / STOP key.  
  
It indicates total count for each denomination.
- (3) Press C key to go back to previous screen.

3-3. TOTAL COUNT COINS		( 1/** )
(Clear : 12/31/2099)		
<b>[Total]</b>	:	4,294,967,295 pcs
JPN o¥500x 50	:	4,294,967,295 pcs
JPN o¥500x 20	:	4,294,967,295 pcs
JPN n¥500x 50	:	4,294,967,295 pcs
JPN n¥500x 20	:	4,294,967,295 pcs
JPN ¥100x 50	:	4,294,967,295 pcs

## LAC-17 MAINTENANCE MODE

### 3-4. TOTAL REJECT COIN COUNT

(1) Select TOTAL REJECT COIN COUNT from LOGGING menu.

(2) Press START / STOP key.

It indicates number of rejected coin by material detection for each denomination.

(3) Press C key to go back to previous screen.

3-4. TOTAL REJECT COIN COUNT ( 1/xx )	
(Clear : 12/31/2099)	
<b>[Total]</b>	: 4,294,967,295 times
JPN o¥500x 50	: 4,294,967,295 times
JPN o¥500x 20	: 4,294,967,295 times
JPN n¥500x 50	: 4,294,967,295 times
JPN n¥500x 20	: 4,294,967,295 times
JPN ¥100x 50	: 4,294,967,295 times

### 3-5. TOTAL ROLL HEIGHT REJECT

(1) Select TOTAL ROLL HEIGHT REJECT from LOGGING menu.

(2) Press START / STOP key.

It indicates number of roll height reject for each denomination.

(3) Press C key to go back to previous screen.

3-5. TOTAL ROLL HEIGHT REJECT ( 1/xx )	
(Clear : 12/31/2099)	
<b>[Total]</b>	: 4,294,967,295 times
JPN o¥500x 50	: 4,294,967,295 times
JPN o¥500x 20	: 4,294,967,295 times
JPN n¥500x 50	: 4,294,967,295 times
JPN n¥500x 20	: 4,294,967,295 times
JPN ¥100x 50	: 4,294,967,295 times

### 3-6. ALARM FREQUENCY

(1) Select ALARM FREQUENCY from LOGGING menu.

(2) Press START / STOP key.

It indicates number of error occurrences for each alarm code.

(3) Press C key to go back to previous screen.

3-6. ALARM FREQUENCY ( 1/xx )	
(Clear : 12/31/2099)	
1) 01-00-00	65,535 times
2) 02-00-00	65,535 times
3) 06-00-00	65,535 times
4) 07-00-00	65,535 times
5) 10-30-11	65,535 times
6) 11-30-21	65,535 times

# LAC-17 MAINTENANCE MODE

## 3-7. ALARM

- (1) Select ALARM from LOGGING menu.
- (2) Press START / STOP key.  
It indicates the latest 100 alarm code.
- (3) Press C key to go back to previous screen.

3-7. ALARM		( 1/xx )
(Clear : 12/31/2099)		
1)	01-00-00 / Count / EUR	0.02x 50
2)	02-00-00 / Wrap / EUR	0.02x 50
3)	06-00-00 / Count / EUR	0.02x 50
4)	07-00-00 / Wrap / EUR	0.02x 50
5)	10-30-11 / Wrap / EUR	0.02x 50
6)	11-30-21 / Wrap / EUR	0.02x 50
<div>▼ ▲</div>		

## 3-8. MATERIALREJECT

- (1) Select MATERIAL REJECT from LOGGING menu.
- (2) Press START / STOP key.  
It indicates the cause of Material Detection Reject.
- (3) Press C key to go back to previous screen.

3-8. MATERIAL REJECT		( 1/50 )
(Clear : 12/31/2099)		
1)	12/31/2099 23:59	
	Count / JPN o¥500x 50	
	Over / D	
2)	12/31/2099 23:59	
	Wrap / JPN o¥500x 50	
	Over / P	
<div>▼ ▲</div>		

Error Code	Contents
OVER	Overrun
M	Matching Error
D	Distance Error
P	Position Error
I1	Inner 1 Error
I2	Inner 2 Error
R	Ring Error
C	Core Error
B	Blank Error

# LAC-17 MAINTENANCE MODE

## 3-9. LIFE COUNTER

- (1) Select LIFE COUNTER from LOGGING menu.
- (2) Press START / STOP key.  
It indicates number of action, time for each actuator.
- (3) Select a actuator by F1 / F2 or Jog Dial.
- (4) Press C key to go back to previous screen.

The Symbol of actuator is indicates such as M1, M2....  
Number or time of operation indicats below.

3-9. LIFE COUNTER
( 1/24 )

(Clear : 12/31/2099)

M1    ) Set Date [12/31/2099]

Normal    : 4, 294, 967, 295 sec

Reverse    : 4, 294, 967, 295 sec

▼

▲

3-9. LIFE COUNTER
( 2/24 )

(Clear : 12/31/2099)

M2    ) Set Date [12/31/2099]

Normal    : 4, 294, 967, 295 sec

Reverse    : 4, 294, 967, 295 sec

▼

▲

Symbol	Description	Symbol	Description
M1	Aux Coin Table Motor	M14	Cartridge Motor
M2	Coin Table Motor	SOL1	Count Stop Solenoid
M3	Coin Feed Motor	SOL2	Reject Stop Solenoid
M4	Track Width Motor	SOL3	Shutter Solenoid
M5	Stack Width Motor	SOL4	Arm Stop Solenoid
M6	Thickness Block Motor	SOL5	Clear Gate Solenoid
M7	Stack Dram Motor	CLB1	Track Width Brake
M8	Mode Change Motor	CLB2	Stack Width Brake
M9	Main Cam Motor	RC1	Roll Counter
M10	Paper Feed Motor	FAN1	Upper Fan Motor
M11	Wrap Motor	FAN2	Bottom Fan Motor
M12	Roller Opening Motor		
M13	Roll Gate Motor		



# LAC-17 MAINTENANCE MODE

## 3-10. LOG DATA SAVE

- (1) Select LOG DATA SAVE from LOGGING menu and press START / STOP key.

The display indicates the illustration on the right.

- (2) Put CF Card to the Card Slot of Display Board.
- (3) Press START / STOP key to save the Log Data.

Press C key to go back to previous screen.

- (4) The display indicates the illustration on the right during the saving.

LOG DATA file is saved the folder named LAC.  
File Size: 1,269,504 Bytes.

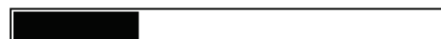
### 3-10.LOG DATA SAVE

Please set the CF card  
before saving.

[START/STOP] : Save  
[C] : Cancel

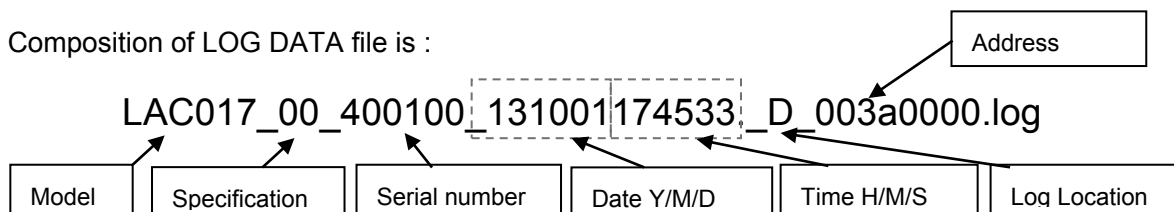
### 3-10.LOG DATA SAVE

Saving data to CF Card.  
Please wait...



25 %

Composition of LOG DATA file is :



Specification (00=Standard)

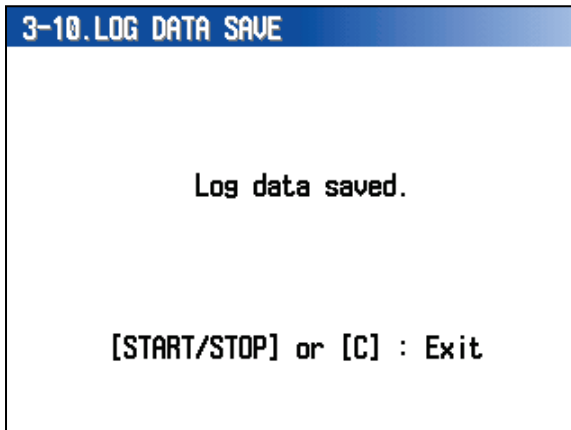
Log Location (D=Display Board, S=Mechanism Board, J= Validator Board)

Address (Start address for the log data )

## LAC-17 MAINTENANCE MODE

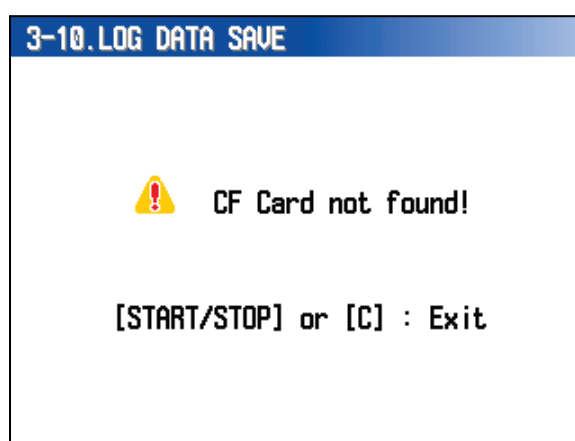
- (5) When data saving is completed normally, the display indicates "Log data saved."

Press START / STOP key or C key to go back LOGGING menu.



If the data saving fails, the display indicates error message.

Press START / STOP key or C key to go back LOGGING menu.



List of Message for CF Card Access Error.

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File exists!	Same file name is exist.
CF Card full!	CF Card is full. Insufficient memory.
Access error!	Other abnormality.

## LAC-17 MAINTENANCE MODE

### 3-11. SENSOR LOG DATA SAVE

- (1) Select SENSOR LOG DATA SAVE from LOGGING menu.

Note) When SENSOR LOG is saved during error condition, do not clear the error before saving the data.

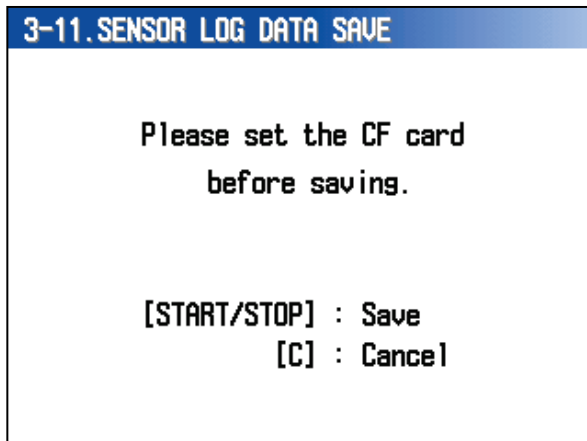
- (2) Press START / STOP key.

The display indicates as illustration on the right.

- (3) Put CF Card to the card slot of Display Board.

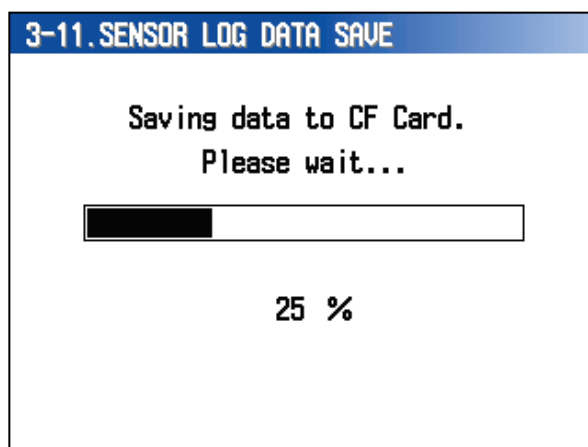
- (4) Press START / STOP key to save the data.

Press C key to go back to LOGGING menu.

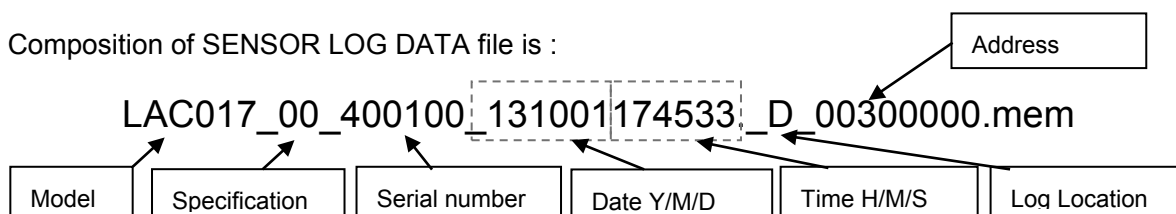


- (5) The display indicates the illustration on the right during the saving.

LOG DATA file is saved the folder named LAC. File Size: 1,091,328 Bytes.



Composition of SENSOR LOG DATA file is :



Specification (00=Standard)

Log Location (D=Display Board, S=Mechanism Board, J= Validator Board)

Address (Start address for the log data )

## LAC-17 MAINTENANCE MODE

- (6) When data saving is completed normally, the display indicates "Sensor Log data saved."

Press START / STOP key or C key to go back LOGGING menu.


### 3-11.SENSOR LOG DATA SAVE

Sensor Log data saved.  
( File Date :12/31/2099 23:59:59 )  
[START/STOP] or [C] : Exit

If the data saving is failed, the display indicates error message.

Press START / STOP key or C key to go back LOGGING menu.

### 3-11.SENSOR LOG DATA SAVE

 CF Card not found!  
[START/STOP] or [C] : Exit

List of Message for CF Card Access Error.

Message	Contents
CF Card not found!	No card The card is removed. Status is chaged abnormally.
File exists!	Same file name is exist.
CF Card is full.	CF Card is full.□Insufficient memory.
Access error!	Other abnormality.

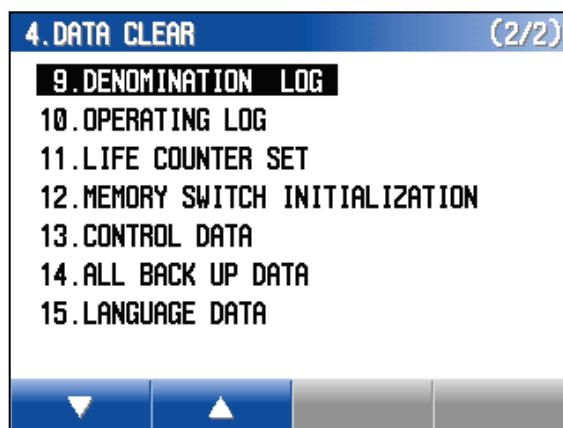
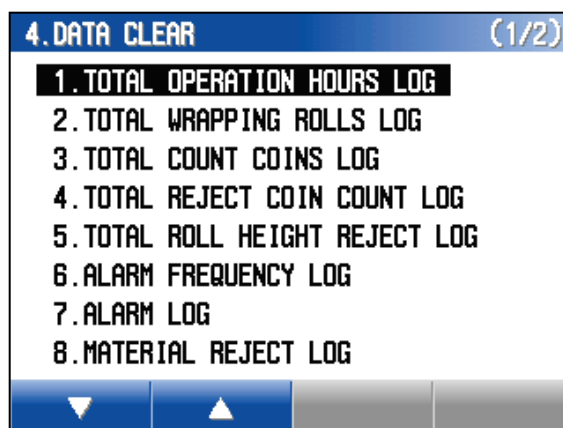
# LAC-17 MAINTENANCE MODE

## 4. DATA CLER

(1) Select DATA CLEAR from MAINTENANCE menu.

(2) Select a item from DATA CLEAR menu by pressing F1 / F2 key or Jog Dial.

Press C key to go back to previous screen.



Menu	Description
1. TOTAL OPERATION HOURS LOG	Total operation hours log clear
2. TOTAL WRAPPING ROLLS LOG	Total wrapping rolls each demon. log clear
3. TOTAL COUNT COINS LOG	Total count for each denom. log clear
4. TOTAL REJECT COIN COUNT LOG	Total material detection reject for each denom. log clear
5. TOTAL ROLL HEIGHT REJECT LOG	Total coin roll height reject for each denom. log clear
6. ALARM FREQUENCY LOG	Number of error occurrences for each alarm log clear
7. ALARM LOG	The latest 100 alarm code log clear
8. MATERIAL REJECT LOG	Cause of Material Detection Reject log clear
9. DENOMINATION LOG	Denomination log clear
10. OPERATION LOG	Operation log clear
11. LIFE COUNTER SET	Life counter log setting
12. MEMORY SWITCH INITIALIZATION	Memory switch default setting
13. CONTROL DATA	Control Data clear
14. ALL BACK UP DATA	All back up data clear
15. LANGUAGE DATA	Language data clear

## LAC-17 MAINTENANCE MODE

### 4-1. TOTAL OPERATION HOURS LOG

(1) Select TOTAL OPERATION HOURS LOG from DATA CLEAR menu.

(2) Press START / STOP key.

The display indicates the illustration on the right.

(3) Press START / STOP key

Press C key to go back previous screen.

#### 4-1. TOTAL OPERATION HOURS LOG

Do you want to clear the data?

[START/STOP] : Clear  
[C] : Cancel

(4) Press START / STOP key again to clear the selected data.

Press C key to cancel and go back to DATA CLEAR menu.

#### 4-1. TOTAL OPERATION HOURS LOG

**Start/Stop**

Press the key

Clear the data in same mannner for following items.

Menu
1. TOTAL OPERATION HOURS LOG
2. TOTAL WRAPPING ROLLS LOG
3. TOTAL COUNT COINS LOG
4. TOTAL REJECT COIN COUNT LOG
5. TOTAL ROLL HEIGHT REJECT LOG
6. ALARM FREQUENCY LOG
7. ALARM LOG
8. MATERIAL REJECT LOG
10. OPERATION LOG

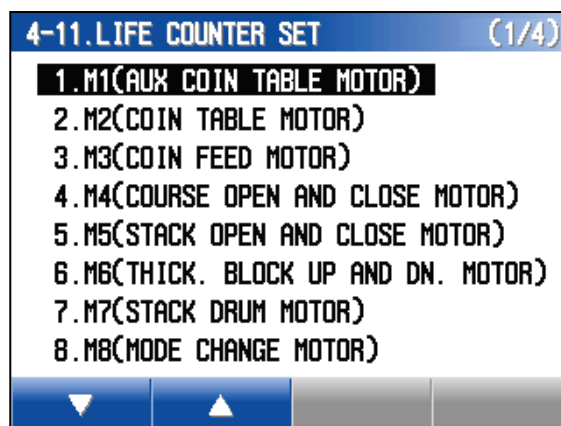
## LAC-17 MAINTENANCE MODE

### 4-11. LIFE COUNTER SET

When a part are replace to second hand part for repair, the operation times or opration hours for the second hand part can be set to LIFE COUNTER.

- (1) Select LIFE COUNTER SET form DATA CLEAR menu.
- (2) Select the actuator by F1 / F2 or Jog Dial and press START / STOP key.

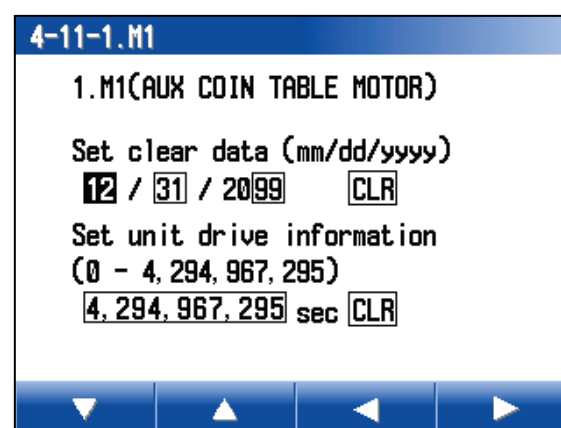
Press C key to go back to previous screen.



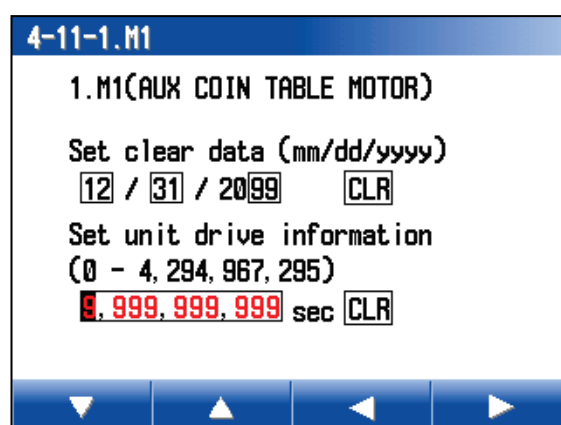
- (3) Move the cursor by F3 / F4 key.
- (4) Change the setting by F1 / F2 key or Jog Dial.
- (5) Press START / STOP key save the setting.

Press C key to go back to previous screen.

If CLR is selected, the data will be set default.



The range of setting operation time is 0 to 4,294,967,295 sec. In case exceeded data is set, it will turn to red and it won't go for next step.



# LAC-17 MAINTENANCE MODE

(6) Press START / STOP key to save the data.

Press C key to go back previous screen.

## 4-11-1.M1

Set clear data (mm/dd/yyyy)  
12/31/2099

Set unit drive information  
4, 294, 967, 295 sec

Do you want to save?

[START/STOP] : Save

[C] : Cancel

## 4-11-25. ALL ACTUATORS

(1) Select ALL ACTUATORS from DATA  
CLEAR menu.

(2) Press START / STOP key.

## 4-11-25.ALL ACTUATORS

Are you sure to clear the data?

[START/STOP] : Clear

[C] : Cancel

(3) Press START / STOP key again to clear  
the data.

Press C key to go back to previous screen.

## 4-11-25.ALL ACTUATORS

**Start/Stop**

Press the key



## LAC-17 MAINTENANCE MODE

### 4-12. MEMORY SWITCH INITIARIZATION

It clears mamory switch setting which manually made.

(1) Select MEMORY SWITCH INITIALZATION form DATA CLEAR menu and press START / STOP key.

(2) Press START / STOP key.

Press C key to go back previous screen.

(3) Press START / STOP key to set all default.

Press C key to go back previous screen.

#### 4-12. MEMORY SWITCH INITIALIZATION

Are you sure  
you want to initialize all data?

[START/STOP] : Initialize  
[C] : Cancel

#### 4-12. MEMORY SWITCH INITIALIZATION

**Start/Stop**

Press the key

### 4-13. CONTROL DATA

**It clears Control Memory.  
Do not perform without instruction form  
LAUREL.**

(1) Select CONTROL DATA form DATA CLEAR menu.

(2) Press START / CLEAR key.

(3) Press START / CLEAR key form the screen on the right.

Press C key to go back previous screen.

(4) Press START / CLEAR key to clear the data.

(5) Press C key to go back to DATA CLEAR menu.

#### 4-13. CONTROL DATA

Are you sure to clear the data?

[Start/Stop] : Clear  
[C] : Cancel

#### 4-13. CONTROL DATA

**Start/Stop**

Press the key

## LAC-17 MAINTENANCE MODE

### 4-14. ALL BACK UP DATA

ALL BACKUP DATA are cleared before shipment of a machine. Do not perform without instruction form LAUREL.

(1) Select ALL BACK UP DATA from DATA CLEAR and press START / STOP key.

(3) Press START / STOP key again.

#### 4-14. ALL BACK UP DATA

Are you sure  
you want to initialize all data?

[START/STOP] : Clear  
[C] : Cancel

(4) Press START / STOP key to clear all backup data except Denomination Data.

Press C key to go back previous screen.

#### 4-14. ALL BACK UP DATA

**Start/Stop**

Press the key

## LAC-17 MAINTENANCE MODE

ALL BACK UP DATA Clear makes following setting to default.

Item	Default Setting
Brightness	5
Contrast	4
Power Save Setting	1 min.
Buzzer Volum	1
Jog Dial Beep	ON
Alarm Beep	ON
Repeat Alarm Beep	ON
Date Format	MM/DD/YYYY
Time indication at title screen	ON
Language	English
Jog Dial Sensitivity	2
Jog Dial thresh hold	120
Administrator Password	0000
Password for Roll Printer Information Setting	ON
Password for Validator Level Setting	ON
Password for Coin Roll Height Detection Setting	ON
Passwrđ for Denom. Data Download	ON
Operator Number Setting after power on.	ON
LAN Protocol	TCP
LAN IP Address	192.168.0.1
LAN-Subnet mask	255.255.255.0
LAN –Default Gate Way	0.0.0.0
LAN-Port	10,001
LAN-Remote IP	10.002
LAN-Remote Port	192,168,0,254
LAN-Device Ch.	0

In addition, following data are cleared.

Item
TOTAL OPERATION HOURS LOG
TOTAL WRAPPING ROLLS LOG
TOTAL COUNT COINS LOG
TOTAL REJECT COIN COUNT LOG
TOTAL ROLL HEIGHT REJECT LOG
ALARM FREQUENCY LOG
ALARM LOG
OPERATION LOG
LIFE COUNTER SET
CONTROL DATA
CoinRoll Height Data
Full data
Near Full data
Near End data

## LAC-17 MAINTENANCE MODE

### 4-15. LANGAGE DATA

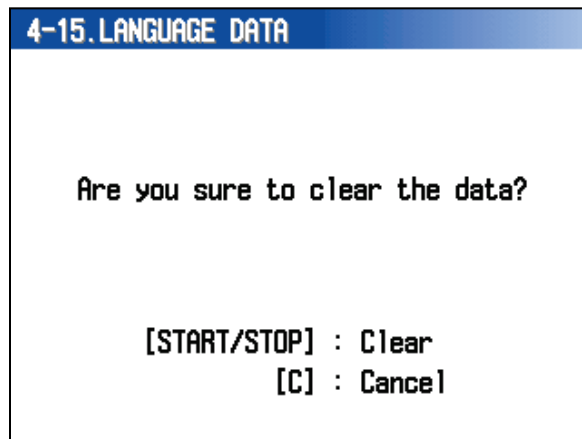
LANGAGE DATA clears langage setting to default (English).

- (1) Select LANGUAGE DATA from DATA CLEAR menu and press START / STOP key.

The display indicates the illustration on the right.

- (2) Press START / STOP key.

Press C key to go back to previous screen.



- (3) Press START / STOP key to clear the language data.

Press C key to go back previous screen.

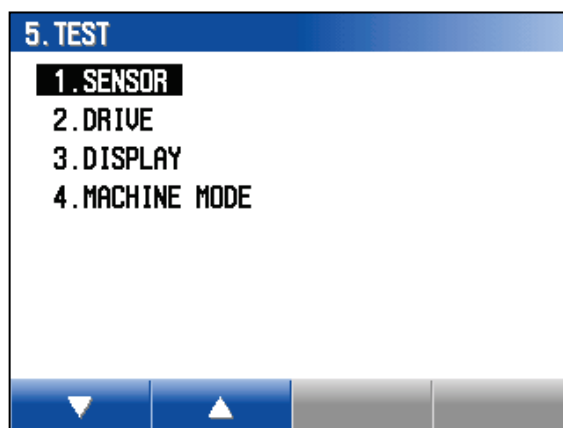


# LAC-17 MAINTENANCE MODE

## 5. TEST

- (1) Select TEST form MAINTENANCE menu and Press START / STOP key.
- (2) Select a item by F1 / F2 or Jog Dial.
- (3) Press START / STOP key to excecute the item.

Press C key to go back to previous screen.



Menu	Description
1.SENSOR	Sensor Test and information
2.DRIVE	Drive Test
3.DISPLAY	Display Test
4.MACHINE MODE	Operation Test such as stacking, wrapping.

# LAC-17 MAINTENANCE MODE

## 5-1. SENSOR

- (1) Select SENSOR form TEST menu and press START / STOP key.

The display indicates each sensor status.

- (2) Select the sensor .
- (3) Press F3 key to change emitter out put for following sensors.

5-1. SENSOR (1/9)			
1. PH1	:Light	00H	Full
2. PH3	:Light	08H	
3. PH4	:Light	08H	
4. PH5	:Light	08H	
5. PH6	:Light	00H	Full
6. PH7	:Light	00H	Full
7. PH8	:Dark	FFH	
8. PH9	:Light	07H	
<div> <div>▼</div> <div>▲</div> <div>► Full ◀ Off</div> </div>			

PH1: Aux Coin Table Control Sensor  
 PH6: Reject Box Full Sensor  
 PH7: Count Chute Full Sensor  
 PH13: Paper Home Position  
 PH14: Paper Home Position  
 PH15: Clear Box Full Sensor  
 PH16: Roll Chute Jam Sensor  
 PH17: Printer Paper End Sensor

5-1. SENSOR (2/9)			
9. PH10	:Light	06H	
10. PH11	:Light	06H	
11. PH13	:Dark	00H	Full
12. PH14	:Dark	00H	Full
13. PH15	:Light	00H	Full
14. PH16	:Light	00H	Full
15. PH17	:Dark		Full
16. PH18	:Light		
<div> <div>▼</div> <div>▲</div> <div>► Full ◀ Off</div> </div>			

- (4) Press F4 key to generates beep sound for selected sensor depending on the status.

Press C key to go back to previous screen.

No.	Symbol	Description
1	PH1	Aux Coin Table Control Sensor
2	PH3	Count Sensor 1
3	PH4	Count Sensor 2
4	PH5	Stack Timing Sensor
5	PH6	Reject Box Full Sensor
6	PH7	Count Chute Full Sensor
7	PH8	Roller Opening Position 1
8	PH9	Roller Opening Position 2
9	PH10	Roller Opening Position 3
10	PH11	Roller Opening Position 4
11	PH13	Paper Home Position
12	PH14	Paper Home Position
13	PH15	Clear Box Full Sensor
14	PH16	Roll Chute Jam Sensor
15	PH17	Printer Paper End Sensor
16	PH18	Automatic Wrap Sensor
17	PI2	Reject Stop Position
18	PI3	Track Width Home Position
19	PI4	Stack Width Home Position
20	PI5	Thickness Block High Position
21	PI6	Thickness Block Low Position
22	PI7	Shutter Solenoid Home Position
23	PI8	Stack Dram Home Position
24	PI9	Reject Box Set

# LAC-17 MAINTENANCE MODE

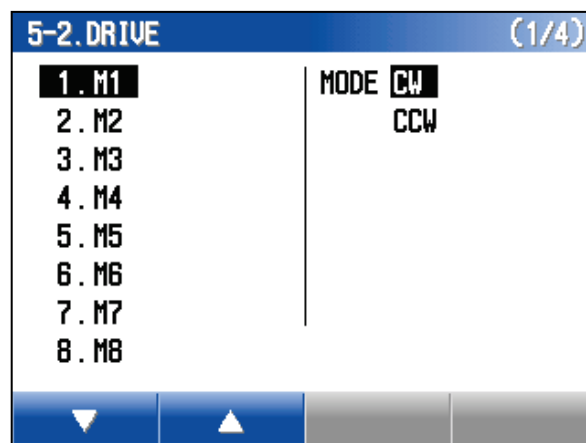
25	PI11	Count Mode Position
26	PI12	Wrap Mode Position
27	PI13	Main Cam Home Position
28	PI14	Arm Stop Solenoid Position
29	PI15	Paper Roll Set Position
30	PI17	Clear Gate Position
31	PI18	Clear Box Set
32	PI19	Roll Gate Position
33	PI20	Cartridge Motor Roller Position
34	PI21	Cartridge Set
35	CM1	Electric Condenser Microphone
36	CS1	Stack Jam Sensor
37	CS2	Loose Coin Sensor
38	CD1	Hopper Supply Sensor
39	SW1	Upper Door Switch
40	SW2	Front Door Switch 1
41	SW3	Front Door Switch 2
42	SW4	Printer Cover Switch
43	M1ALM	Aux. Coin Table Alarm
44	M2ALM	Coin Table Alarm
45	M3ALM	Coin Feed Motor Alarm
46	M4ALM	Sorting Track Open Motor Alarm
47	M5ALM	Stack Width Open Motor Alarm
48	M6ALM	Thickness Block Motor Alarm
49	M7ALM	Stack Drum Motor Alarm
50	M9ALM	Cam Motor Alarm
51	M10ALM	Wrapping Motor Alarm
52	M11ALM	Paper Feed Motor Alarm
53	24V1DWN	24V 1 Power Down
54	24V2DWN	24V2 Power Down
55	SENSOR1	Validator Timing Sensor 1
56	SENSOR2	Validator Timing Sensor 2
57	SENSOR3	Validator Timing Sensor 3
58	SENSOR4	Validator Timing Sensor 4
59	FAN1	Fan 1 Motor Alarm
60	FAN2	Fan 2 Motor Alarm
60	IN1	Simple I/F input 1
61	IN2	Simple I/F input 2
62	IN3	Simple I/F input 3
64	IN4	Simple I/F input 4
65	5V/AD	5V Power
66	1PZ-001	Display Board Battery Voltage
67	1PZ-002	Mechanism Board Battery Voltage

## LAC-17 MAINTENANCE MODE

### 5-2. DRIVE

- (1) Select DRIVE from MAINTENANCE menu and press START / STOP key.
- (2) Select a actuator and press START / STOP key.
- (3) Select the action.

CW: Clockwise  
 CW HIGH: Clockwise high speed  
 CW LOW: Clockwise low speed  
 CCW: Counter Clockwise  
 BRAKE: Brake  
 ON: Start  
 HOME: Home position  
 WRAP: Wrap Mode Pistion  
 COUNT: Count Mode Pisition



- (4) Press START / STOP key to start action. Press START / STOP key again to stop the action.

No.	Symbol	Description
1	M1	Aux Coin Table Motor
2	M2	Coin Table Motor
3	M3	Coin Feed Motor
4	M4	Track Width Motor
5	M5	Stack Width Motor
6	M6	Thickness Block Motor
7	M7	Stack Dram Motor
8	M8	Mode Change Motor
9	M9	Main Cam Motor
10	M10	Paper Feed Motor
11	M11	Wrap Motor
12	M12	Roller Opening Motor
13	M13	Roll Gate Motor
14	M14	Cartridge Motor
15	SOL1	Count Stop Solenoid
16	SOL2	Reject Stop Solenoid
17	SOL3	Shutter Solenoid
18	SOL4	Arm Stop Solenoid
19	SOL5	Clear Gate Solenoid
20	CLB1	Track Width Brake
21	CLB2	Stack Width Brake
22	RC1	Roll Counter
23	FAN1	Upper Fan Motor
24	FAN2	Bottom Fan Motor
25	PRINT	Print Head
26	PATLITE	PATELITE light LED
27	START LED	Start LED
28	CLEAR LED	Clear LED
29	OUT1	Simple I/F output1
30	OUT2	Simple I/F output2
31	OUT3	Simple I/F output3
32	OUT4	Simple I/F output4



# LAC-17 MAINTENANCE MODE

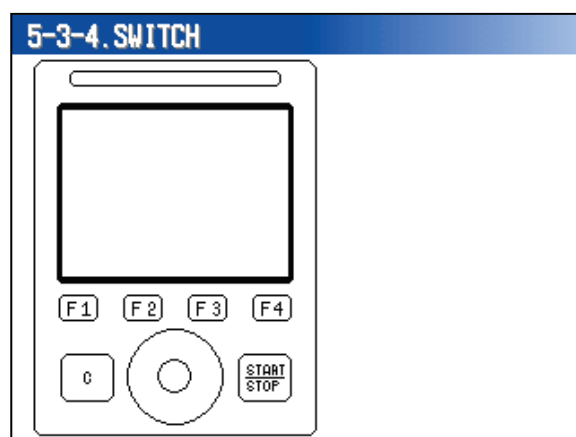
## 5-3. DISPLAY

- (1) Select DISPLAY form TEST menu and press START / STOP key.
- (2) Select item and press START / STOP key.

Press C key to go back to previous screen.



Menu	Description
1.DISPLAY	Color of the display screen changes red, green, blue, white and black by pressing START / STOP key. Press C key to stop the function.
2.BACK LIGHT	Back Light turns ON or OFF by pressing F3 / F4 key. Press C key to stop the function.
3.BUZZER	Buzzer sounds ON or OFF by pressing F3 / F4 key. Press C key to stop the function.
4.SWITCH	The display indicates key illustration. The key on the display inverted by pressing actual operation key. Press C key for 3 seconds to stop the function.



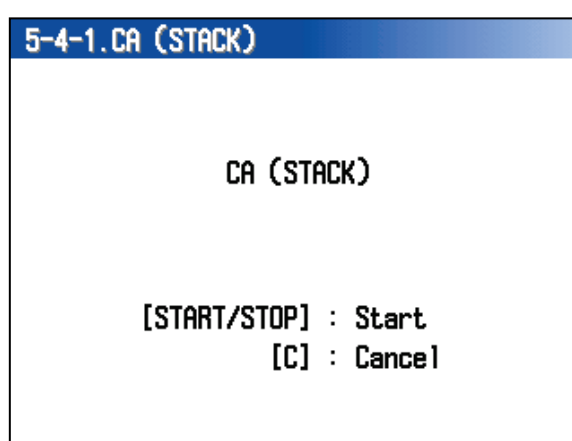
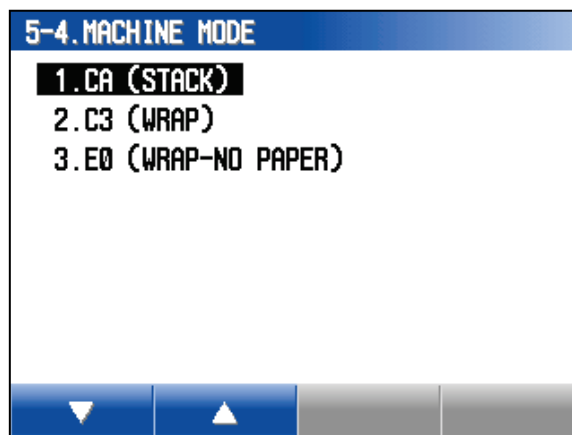
# LAC-17 MAINTENANCE MODE

## 5-4. MACHINE MODE

- (1) Select MACHINE MODE from TEST menu and press START / STOP key.
- (2) Select test operation in the menu and press START / STOP key.
- (3) Press START / STOP key to start selected operation.

The menu of Machine Mode describes below table.

Press C key to go back to previous screen.



Menu	Funtion
1.CA (STACK)	<p><b>Purpose:</b> For checking the condition of the coin stacking.</p> <p><b>Function:</b> After stacking the coins at Stack Drums, the coins are rejected to the Clear box.</p>
2.C3 (WRAP)	<p><b>Purpose:</b> For checking the wrapping movement without using the coins.</p> <p><b>Function:</b> Count on the display screen increases automatically without coins, And the machine starts the wrapping movement. When Coin Roll Height detection is ON, it performs reject action once in each 5 wrapping movement.</p> <p><b>Caution:</b> <b>Must not load the coins in this mode. In order to prevent the damage of wrapping roller, the Crimp Hooks doesn't go into the roller case.</b></p>
3.E0 (WRAP-NO PAPER)	<p><b>Purpose:</b> For checking the wrapping movement without using the roll paper.</p> <p><b>Function:</b> The machine activates normal wrapping movement but the paper feed motor and wrapping motor does not rotate. All the coins are rejected into clear Box.</p> <p><b>Caution:</b> <b>In order to prevent the damage of wrapping roller, the Crimp Hook do not go into the roller case.</b></p>

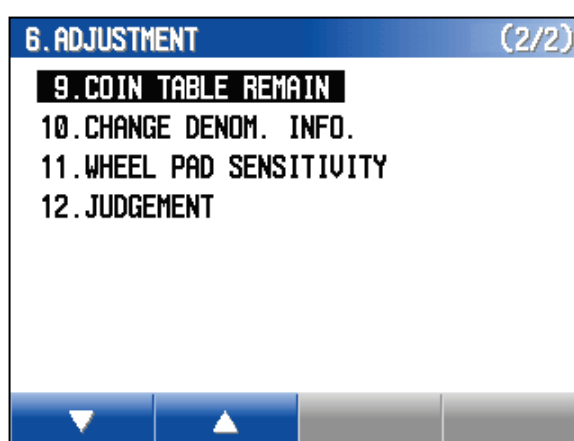
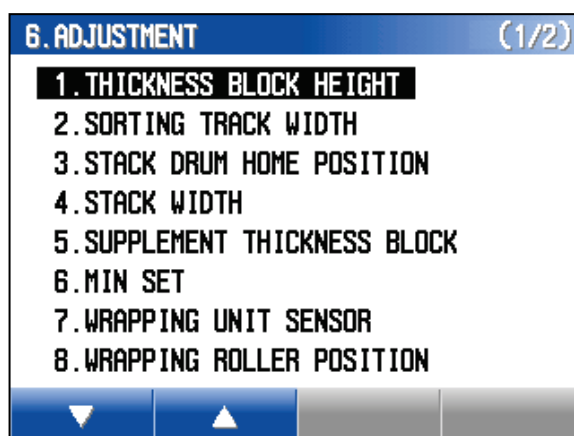
# LAC-17 MAINTENANCE MODE

## 6. ADJUSTMENT

- (1) Select ADJUSTMENT from MAINTENANCE menu and press START / STOP key.
- (2) Select item in ADJUSTMENT by F1 / F2 key or Jog Dial.
- (3) Press START / STOP key.

Press C key to go back to previous screen.

12. JUDGEMENT does not indicate when MSW2 bit 5 is OFF.



Menu	Description
1. THICKNESS BLOCK HEIGHT	Thickness Block height adjustment
2. SORTING TRACK WIDTH	Sorting Track width adjustment
3. STACK DRUM HOME POSITION	Stack Home Position setting
4. STACK WIDTH	Stack Width Adjustment
5. SUPPLEMENT THICKNESS BLOCK	
Supplement of thickness block height	
6. MIN SET	Minimum position setting
7. WRAPPING UNIT SENSOR	Wrapping Unit sensor detection.
8. WRAPPING ROLLER POSITION	Wrapping Roller open position check
9. COIN TABLE REMAIN	Coin Table Remain Sensor Adjustment
10. CHANGE DENOM. INFO.	Setting for each denomination
11. WHEEL PAD SENSITIVITY	Jog Dial Adjustment
12. JUDGEMENT	Validator Adjustment

## LAC-17 MAINTENANCE MODE

### NO DENOM. DATA

In case the display indicates "Denomination data is empty. DENOM. DATA and Security Chip type does not match.

Please contact LAUREL about appropriate DENOM. DATA and Security Chip version.

Press START / STOP key to go back ADJUSTMENT menu.

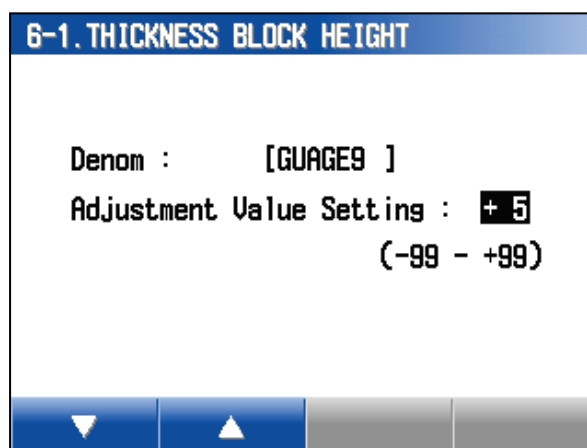
**Denomination data is empty.  
Please download.**

**[START/STOP] or [C] : Exit**

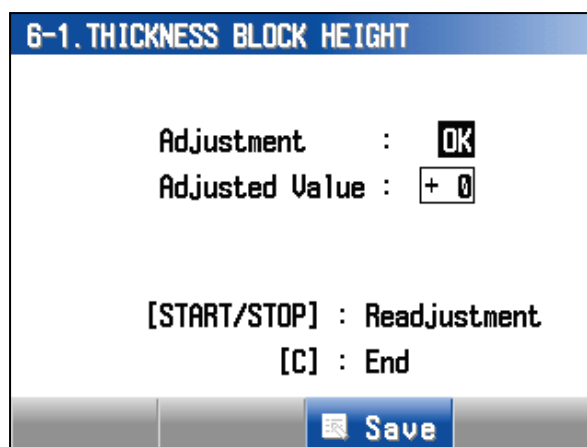
# LAC-17 MAINTENANCE MODE

## 6-1. THICKNESS BLOCK HEIGHT

- (1) Select THICKNESS BLOCK HEIGHT from ADJUSTMENT menu.
- (2) Press START / STOP key.  
The display indicates denomination menu.
- (3) Select Denomin and press START / STOP key.  
Press C key to go back to previous screen.
- (4) Set adjustment value by F1 / F2 or Jog Dial.  
One step changes 0.0075mm/D.  
The display indicates ?? when incorrect value is input.



- (5) Press START / STOP key.  
The display indicates "Adjustment: OK", when the adjustment completes normally.

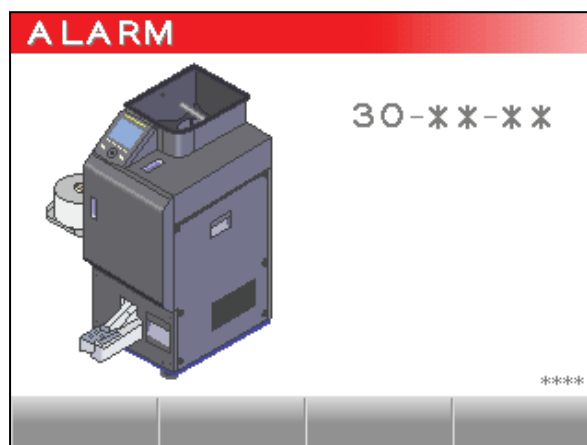


In case of error, the display indicates error message.

Press C key to go back to previous screen.

- (6) Press F3 key to save the adjustment value.

Press C key to go back to previous screen without saving.



# LAC-17 MAINTENANCE MODE

## 6-2. SORTING TRACK WIDTH

- (1) Select SORTING TRACK WIDTH from ADJUSTMENT menu.

- (2) Press START / STOP key.

The display indicates denomination menu.

- (3) Select denomination and press START / STOP key.

Press C key to go back to previous screen.

- (4) Set adjustment value by F1 / F2 key or Jog Dial.

One step change 0.1mm.

The display indicates ?? when incorrect value is input.

- (5) Press START / STOP key.

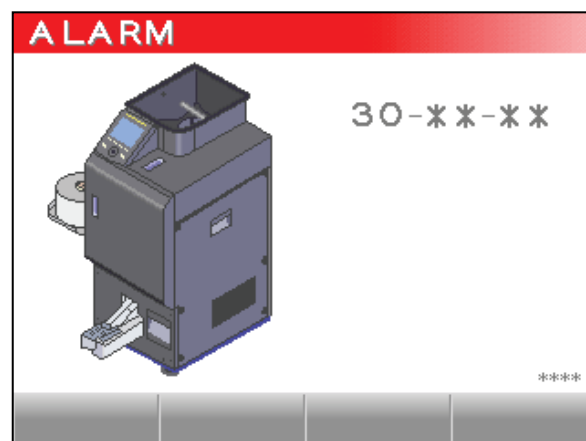
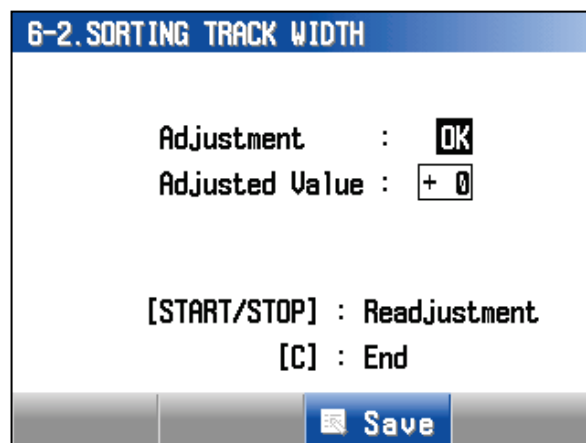
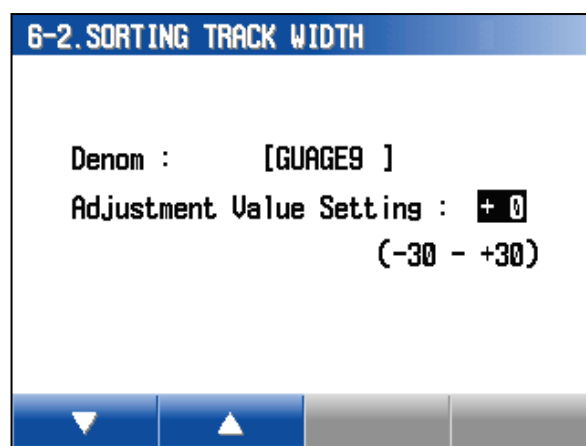
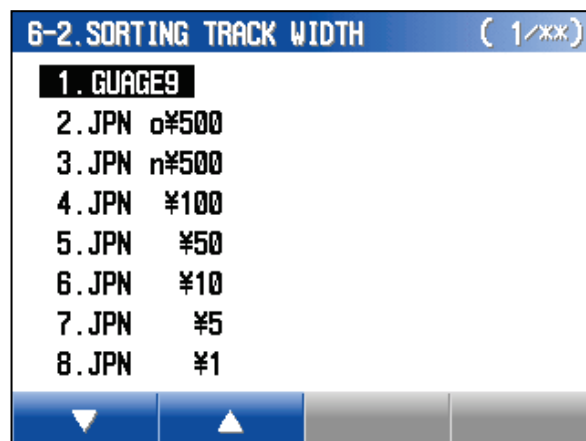
The display indicates "Adjustment: OK", when the adjustment is completed normally.

In case of error, the display indicates error message.

Press C key to go back to previous screen.

- (6) Press F3 key to save the adjustment value.

Press C key to go back to previous screen without saving.



## LAC-17 MAINTENANCE MODE

### 6-3. STACK DRUM HOME POSITION

(1) Select STACK DRUM HOME POSITION from ADJUSTMENT menu.

(2) Press START / STOP key.

The display indicates the illustration on the right.

(3) Press START / STOP key.

Stack Drum rotates one turn and stop at Stack Drum Home Position.

The display indicates "Adjustment: OK", when the function completed normally.

Press C key to go back to previous screen.

#### 6-3. STACK DRUM HOME POSITION

Fixed position

[START/STOP] : Start  
[C] : Cancel

#### 6-3. STACK DRUM HOME POSITION

Adjustment : **OK**

[C] : End

# LAC-17 MAINTENANCE MODE

## 6-4. STACK WIDTH

- (1) Select STACK WIDTH from ADJUSTMENT menu and press START / STOP key.

The display indicates denomination menu.

- (2) Select a denomination and press START / STOP key.

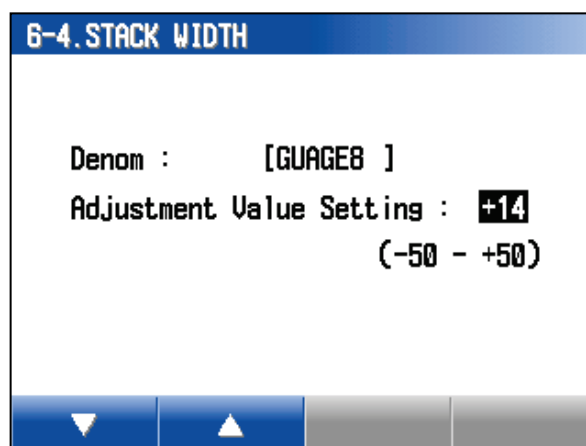
Press C key to go back to previous screen.



- (3) Set adjustment value by F1 / F2 key or Jog Dial.

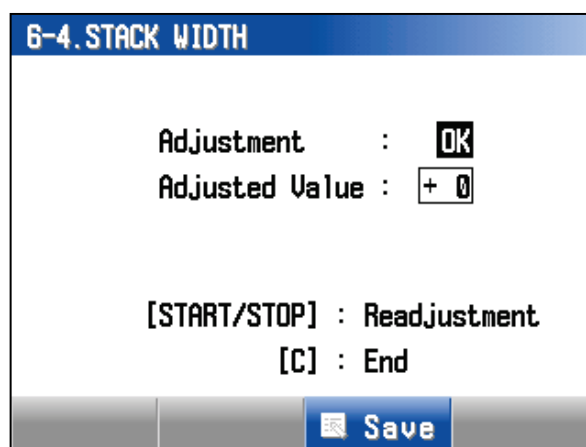
One step changes 0.06mm.

The display indicates ?? when incorrect value is input.



- (4) Press START / STOP key.

The display indicates "Adjustment: OK", when the adjustment is completed normally.

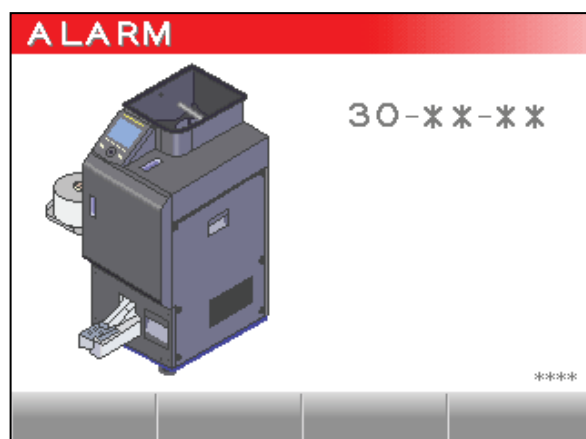


In case of error, the display indicates error message

Press C key to go back to previous screen.

- (5) Press F3 key to save the adjustment value.

Press C key to go back to previous screen without saving.





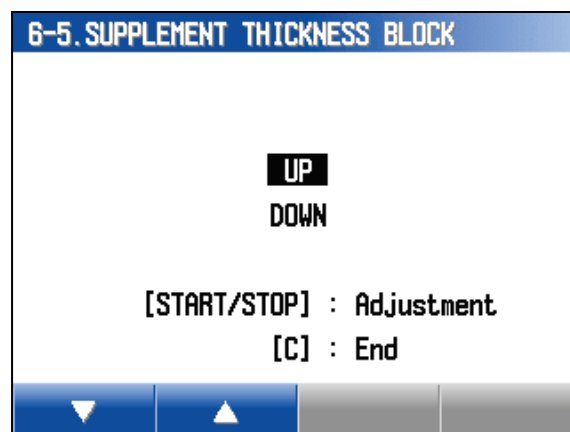
## LAC-17 MAINTENANCE MODE

### 6-5. Supplement of THICKNESS BLOCK

- (1) Select SUPPLEMENT THICKNESS BLOCK from ADJUSTMENT menu.
- (2) Press START / STOP key.
- (3) Select UP or DOWN for Thickness Block by F1 / F2 or Jog Dial.
- (4) Press START / STOP key to set Thickness Block as following.

UP: Gauge 9+0.2mm

DOWN: Gauge 9



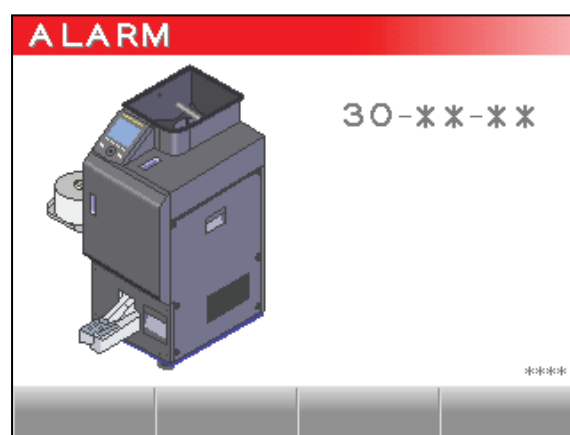
In case of error, the display indicates error message.

Press C key to go back to previous screen.

- (5) Put Gauge 9 to Sorting Track and close Feed Unit. Check the Thickness Block height by Gauge 9.

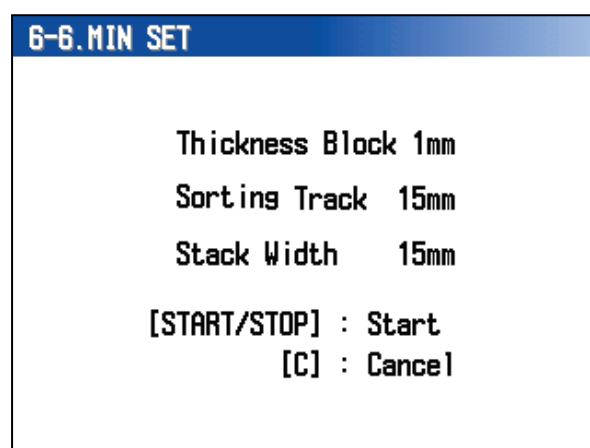
UP: Be sure Gauge 9 moves

DOWN: Gauge 9 contact with Coin Guard.



### 6-6. MIN SET

- (1) Select MIN SET from ADJUSTMENT menu and press START / STOP key.



# LAC-17 MAINTENANCE MODE

## 6-7. WRAPPING UNIT SENSOR

Refer page Adjustment 4-6-3 for more detail.

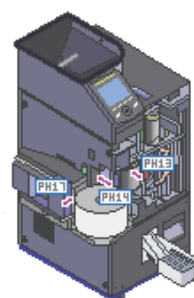
### 6-7. WRAPPING UNIT SENSOR

Remove the wrapping paper.

[START/STOP] : Start

[C] : Cancel

### 6-7. WRAPPING UNIT SENSOR



Adjustment : NG

<On paper>

PH13 : EFH

PH14 : **49H**

PH17 : F2H

**Adjustment...**

## 6-8. WRAPPING ROLLER POSITION

- (1) Select WRAPPING ROLLER POSITION from ADJUSTMENT menu and press START / STOP key.

- (2) Select position and press START / STOP key.

Wrapping Roller stops selected position.

### 6-8. WRAPPING ROLLER POSITION

<b>[Home Position]</b>	7.09h: $\phi$ 26.5-28.8
1.07h: $\phi$ 15.0-17.2	8.06h: $\phi$ 28.9-31.8
2.08h: $\phi$ 17.3-19.0	9.0Ah: $\phi$ 31.9-33.0
3.0Dh: $\phi$ 13.1-20.8	10.01h: $\phi$ 33.1-38.0
4.0Eh: $\phi$ 20.9-22.8	
5.03h: $\phi$ 22.9-24.2	OOOO <b>OF</b> h
6.05h: $\phi$ 24.3-26.4	

1.07H:  $\phi$ 15.0-17.2

The target coin diameter.

The detection plate position.

When the wrapping roller setting completes normally, the display indicates OK. In case it is failed to set, the display indicates NG.

Press C key to go back to previous screen.

# LAC-17 MAINTENANCE MODE

## 6-9. COIN TABLE REMAIN

Refer page Adjustment 4-6-1 for more detail.

**6-9.COIN TABLE REMAIN**

Adjustment Value Setting : **128**

Please press [START/STOP] key.

▼ ▲

## 6-10. CHANGE DENOM. INFO

- (1) Select CHANGE DENOM. INFO from ADJUSTMENT menu and press START / STOP key.
- (2) Select Denomination by F1 / F2 or Jog Dial and press START / STOP key.

Press C key to go back to previous screen.

- (3) Select item by F1 / F2 key and press START / STOP key.

- (4) Setting changes by F1 / F2 or Jog Dial.

In case, setting is not acceptable it indicates ???.

- (5) Press F4 key to indicate test wrap screen.

Press START/ STOP key to start wrap mode.  
Press START / STOP key again to stop wrapping.

- (6) Press C key to go back to Denomination Setting Screen and press START / STOP key.

Meaning of Denom. SW:  
Refer to Electrical Adjustment 4-6-2 for more detail.

This setting are able to reduce stacking Jam.

**6-10.CHANGE DENOM. INFO.** (1/xx)

1. JPN	o¥500x 50
2. JPN	n¥500x 50
3. JPN	n¥500x 20
4. JPN	¥100x 50
5. JPN	¥50x 50
6. JPN	¥10x 50
7. JPN	¥5x 50
8. JPN	¥1x 50

▼ ▲

**6-10.CHANGE DENOM. INFO.** (1/2)

Denom : JPN [ o¥500x 50 ]

Denom.SW : FFH 1 1 1 1 1 1 1 1

1)Stack Supplement	:	±999
2)Paper Length	:	±999
3)Aux Coin Table Speed	:	±999
4)Feed Speed	:	999 ±999
5)Coin Table Speed	:	999 ±999
6)Drum Rotation Speed	:	999 ±999

▼ ▲ Save Wrap

**6-10.CHANGE DENOM. INFO.** (2/2)

Denom : JPN [ o¥500x 50 ]

7)Drum Speed Control	:	999 ±999
8)Shutter Open Timing	:	999 ±999
9)Wrap Method	:	5
10)Paper Feed Tim.	:	±200

▼ ▲ Save Wrap

## LAC-17 MAINTENANCE MODE

### 6-11. WHEEL PAD SENSITIVITY

- (1) Select WHEEL PAD SENSITIVITY from ADJUSTMENT menu and press START / STOP key.

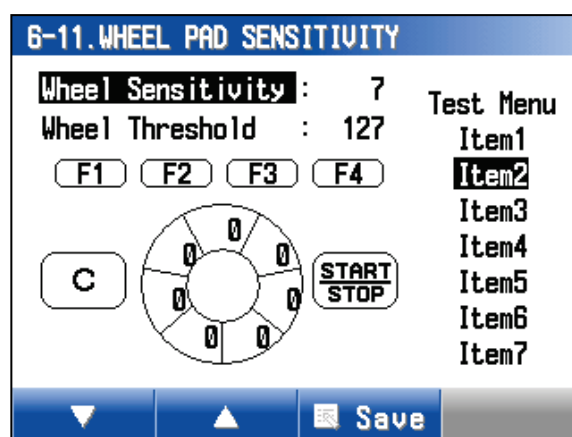
Press C key to go back to previous screen.

- (2) Select the menu by F1 / F2 or Jog Dial and press START / STOP key.

- (3) Change the value by F1 / F2 key or Jog Dial and press START / STOP key.

- (4) The display indicates how Jog Dial is manipulated.  
Make sure the result of adjustment by manipulating Jog Dial.

- (5) Press F3 key to save the adjustment value.



Menu	Description
Wheel Sensitivity	Sensitivity of Jog Dial can be adjusted 1 to 7. 7 is the most dull. 1 is the most sensitive. <b>Default is 2.</b>
Wheel Threshold	Threshold of Jog Dial can be adjusted 0 to 127. Jog Dial is manipulated when the contact value is exceeded threshold. <b>Default is 120.</b>

# LAC-17 MAINTENANCE MODE

## 6-12. JUDGEMENT (Validator Adjustment)

This function is only valid when MSW2 bit 5 is ON.

- (1) Select JUDGEMENT from ADJUSTMENT menu and press START / STOP key.
- (2) Select the item and press START / STOP key..

Press C key to go back to previous screen.

- (3) Set the machine to the specified denomination for the adjustment.

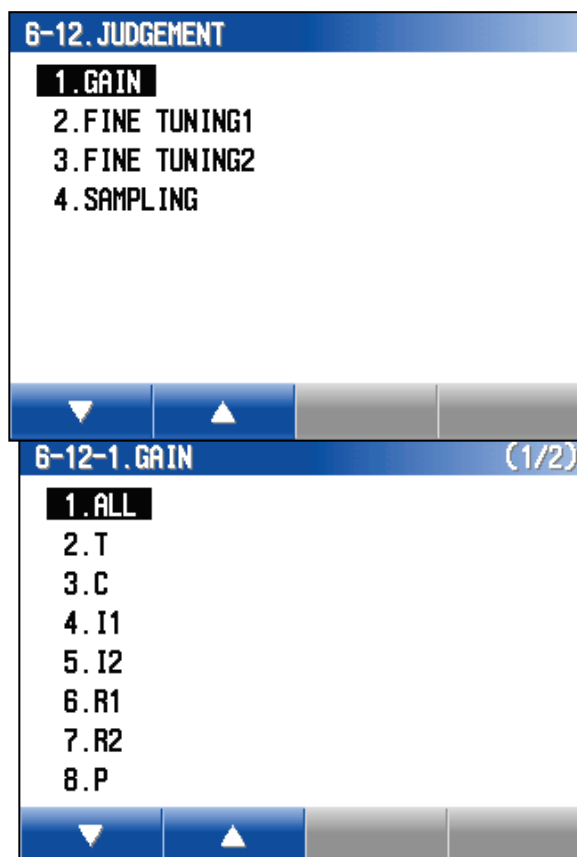
EURO=50 Cents    Yuan=1 Yuan

### 6-12-1. GAIN

- (1) Select GAIN menu and press START / STOP key to start adjustment.

If ALL is selected, it performs all sensor adjustment in the manu except Brank.

Press C key to go back to previous screen.



Menu		Discription
1. ALL		All sensor adjustment
1. T	TIMING	Timing Sensor Adjustment
2. C	CORE	Core Sensor Adjustment ※Not availablefor China Spec.
3. I1	INNER1	Inner 1 Sensor Adjustment ※Not availablefor China Spec.
4. I2	INNER2	Inner 2 Sensor Adjustment ※Not availablefor China Spec.
5. R1	RING1	Ring 1 Sensor Adjustment
6. R2	RING2	Ring 2 Sensor Adjustment
7. P	POSITION	Position Sensor Adjustment
8. D	DISTANCE	Distance Adjustment ※Not availablefor China Spec.
9. B	BRANK	Brank Sensor Adjustment ※ Only for China Spec.

# LAC-17 MAINTENANCE MODE

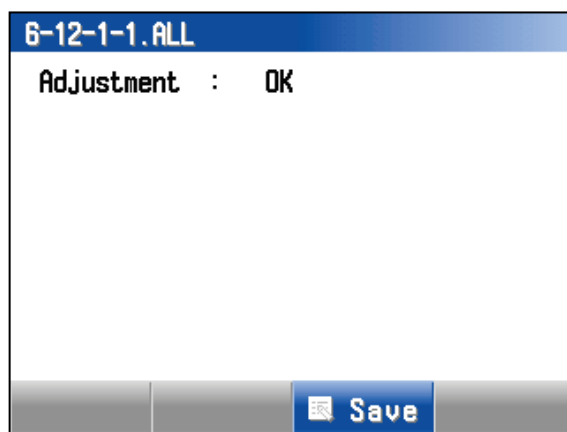
- (1) Press START / STOP key to start adjustment.

When ALL adjustment is performed, it adjust all sensor adjustment in the menu automatically except Brank Adjustment.

Brank Adjustment should be performed individually.

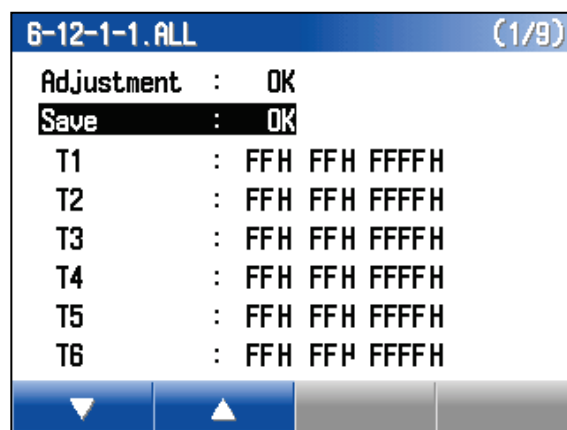


- (6) When the adjustment completes normally, the display indicates "Adjustment : OK".

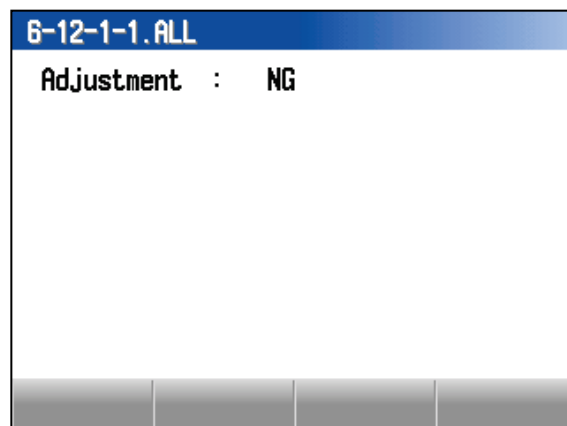


- (7) Press F3 key to save the adjustment data.

- (8) When adjustment completes normally, the display indicates "Save : OK" and adjustment value for each sensors are indicates.



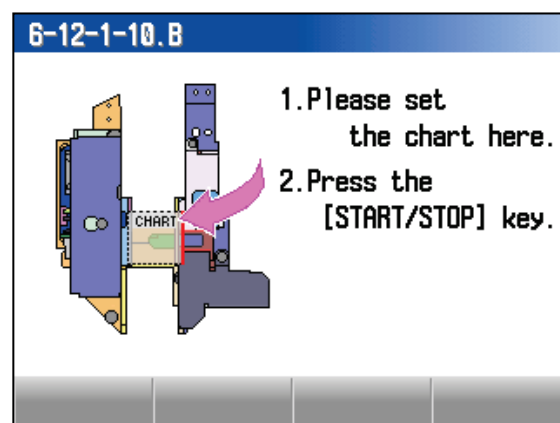
When the adjustment did not complete normally, the display indicates "Adjustment: NG."



# LAC-17 MAINTENANCE MODE

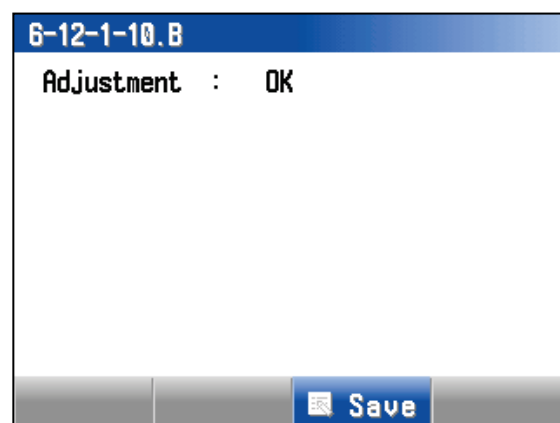
## B (Brank) (Blank Detection Only)

- (1) Select B (Brank) from GAIN menu and press START / STOP key.
- (2) Place the chart at validator as illustration on the screen.
- (3) Press START / STOP key to adjust.



- (4) When the adjustment completes normally, the display indicates "Adjustment : OK".

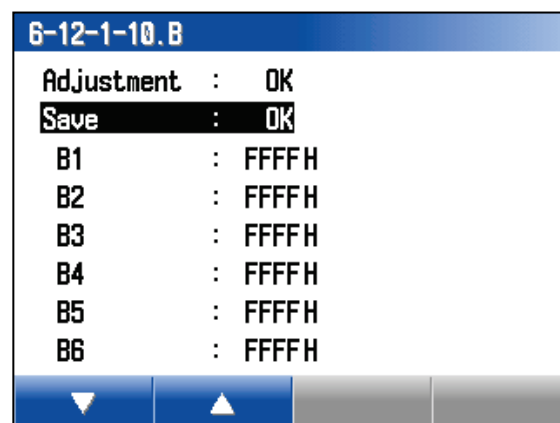
If the adjustment fails, the display indicates NG.



- (5) Press F3 to save the adjustment data.

The display indicates "Save : OK" and Adjustment values for each Brank detection.

Press C key to go back to GAIN menu.



# LAC-17 MAINTENANCE MODE

## 6-12-2. FINE TUNING1

- (1) Select FINE TUNING1 from JUDGEMENT menu and press START / STOP key.

- (2) Count more than 40 pcs of target coin.

While counting, the stacked coins are rejected to clear box.

When the display indicates OK, it is possible to start adjustment.

- (3) Press START / STOP key to adjust.

When the adjustment completes normally, the display indicates "Adjustment : OK".

- (4) Press F3 key to save the adjustment data.

The display indicates ".Save : OK" and the adjustment value for Inner 1, Inner 2, Distance.

In case the adjustment fails, display indicates NG.

Press C key to go back to JUDGEMENT menu.

### 6-12-2.FINE TUNING1

Count 4, 294, 967, 295 pcs

[START/STOP] : Start/Stop

### 6-12-2.FINE TUNING1

Count 4, 294, 967, 295 pcs

**OK**

Press [START/STOP] key.

### 6-12-2.FINE TUNING1

Adjustment : OK

**Save**

### 6-12-2.FINE TUNING1

Adjustment : OK

**Save : OK**

I1 : FFH FFH FFH FFFFH

I2 : FFH FFH FFH FFFFH

D : FFH FFH FFH FFFFH



# LAC-17 MAINTENANCE MODE

## 6-12-3. FINE TUNING2

- (1) Select FINE TUNING2 from JUDGEMENT menu and press START / STOP key.
- (2) Place the target coin at Sorting Track as illustration on the right.

- (3) Move the coin forward and backward along with L and R side of Sorting Track accord to the indication of red bar.

Continue above action until showing OK.

- (4) Remove the coin and Press START / STOP key to adjust.

When the adjustment completes normally, the display indicates "Adjustment : OK".

If the adjustment fails, the display indicates NG.

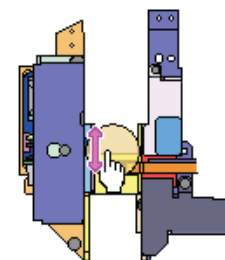
- (5) Press F3 key to save the adjustment data.

The display indicates "Save : OK" and the adjustment value for L and R position.

If the adjustment does not complete, the display indicates NG.

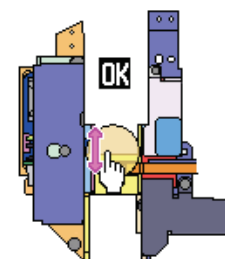
Press C key to go back to JADGEMENT menu.

### 6-12-1. FINE TUNING2



1. Set the Target coin on the Sorting Track.
2. Move the coin along both L and R side of Track continuously until show "OK".

### 6-12-1. FINE TUNING2



1. Set the Target coin on the Sorting Track.
2. Move the coin along both L and R side of Track continuously until show "OK".

Press [START/STOP] key.

**Adjusting...**

### 6-12-3. FINE TUNING2

Adjustment : OK

**Save**

### 6-12-3. FINE TUNING2

Adjustment : OK

**Save : OK**

PL : FFH FFH FFH FFFFH

PR : FFH FFH FFH FFFFH

# LAC-17 MAINTENANCE MODE

## 6-12-4. SAMPLING

- (1) Select SAMPLING for JUDGEMENT menu and press START / STOP key.
- (2) Select denomination to be adjusted and press START / STOP key.

When the CJM sensor module is replaced, adjust sampling for all denomination.

- (3) Count more than 40 pcs of target coin.

Count in right illustration is maximum number.

When the display indicates OK, it is possible to start adjustment.

- (4) Press START / STOP key.

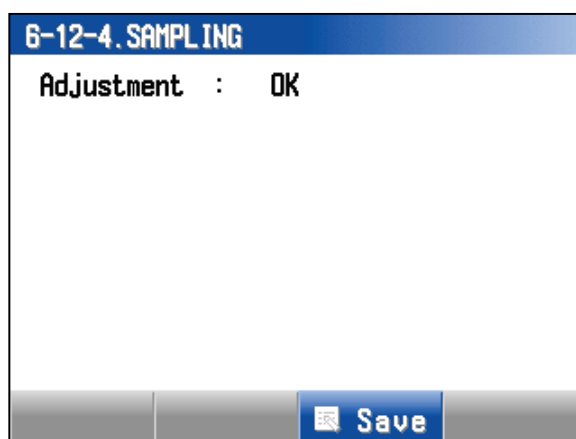
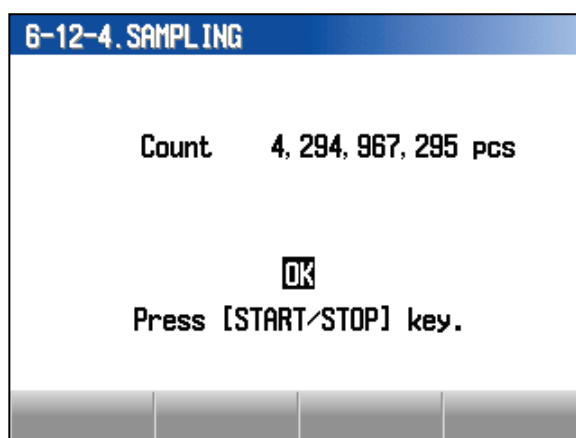
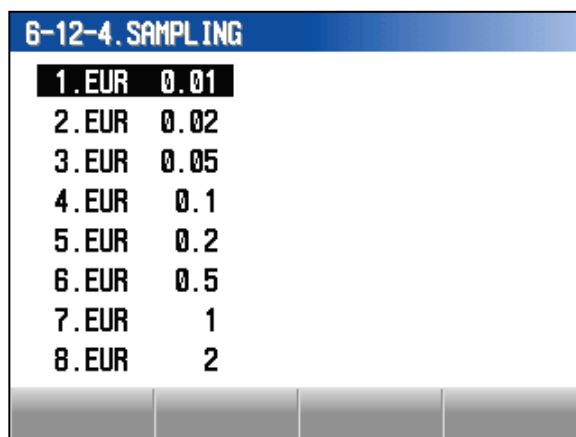
When the adjustment completes normally, the display indicates "Adjustment : OK".

If the adjustment fails, the display indicates NG.

- (5) Press F3 key to save the adjustment data.

The display indicates " Save : OK".

- (6) Press C key key to previous screen.



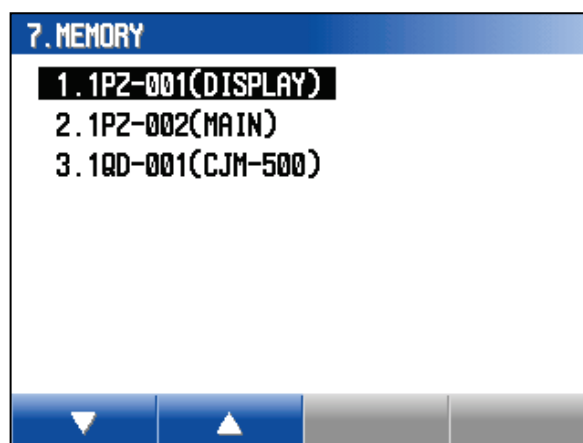
# LAC-17 MAINTENANCE MODE

## 7. MEMORY

- (1) Select MEMORY from MAINTENANCE menu and press START / STOP.
- (2) Select memory location and press START / STOP key.

The display indicates memory.

When MSW2-bit 5 is OFF, item 3 does not indicate.



Memory Location	Contents
1.1PZ-001 (Display Unit)	It indicates memory in Display Control CPU Board.
2.1PZ-002 (Main Unit)	It indicates memory in Mechanism Control Board.
3.1QD-001(CJM-500)	It indicates memory in CJM500 CPU Board.

### 7-1. Memory Dump

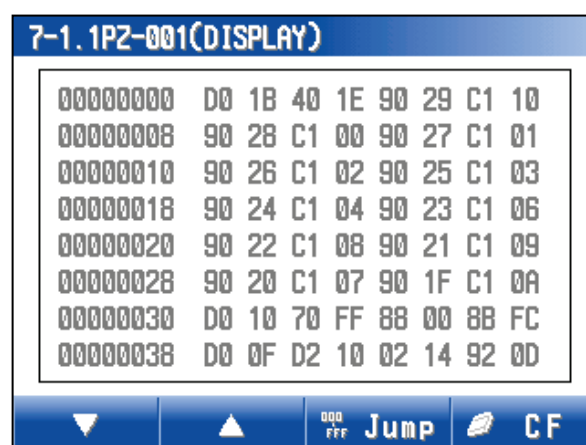
Display Memory indicates as illustration on the right.

- (1) Scroll the memory data by F1 / F2 key or Jog Dial.
- (2) Press F3 key to indicate Memory Jump screen.
- (3) Press F4 key to indicates CF upload screen.

Data indicated gray font is not possible to change.

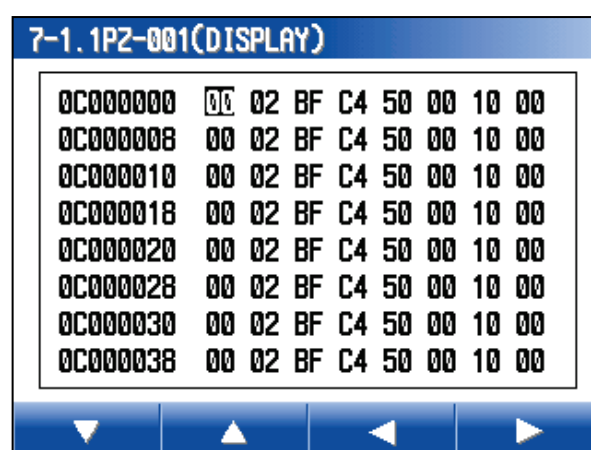
Data indicated black font is possible to change.

Press C key to go back MEMORY menu.



### 7-2. Memory Write

**Do not perform this function without permission of LAUREL.**



## LAC-17 MAINTENANCE MODE

### 7-3. Memory Jump

- (1) While indicating Memory Dump, press F3 key.

The display indicates Memory Jump Screen.

Range of Address is 0000000\*h – FFFFFFFF\*h.

- (2) Move the cursor by F3 / F4 key.

- (3) Change the value by F1 / F2 or Jog Dial.

Repeat (2) and (3) to change the address.

- (4) Press START / STOP key.

The display indicates Memory Dump screen for desired address.

Press C key to go back to Memory menu.

- (5) Put CF Card to card slot of display board and press START / STOP key.

When the upload completes, the display indicates "Memory data saved".

Press C key to go back MEMORY menu.

Saved Memory data file is named :  
Model + Specification + "\_" machine number  
+"-"+ yymmdd+"-"+Location+"-"+Address.mem.

Specification (00=Standard)  
Location (D=Display, S=Mechanism,  
J=Validator)  
File Size: 237,568Byte

#### 7-1. 1PZ-001(DISPLAY)

00000000	D0	1B	40	1E	90	29	C1	10
00000008	90	28	C1	00	90	27	C1	01
00000010	90	26	C1	02	90	25	C1	03
00000018	90	24	C1	04	90	23	C1	06
00000020	90	22	C1	08	90	21	C1	09
00000028	90	20	C1	07	90	1F	C1	0A
00000030	D0	10	70	FF	88	00	8B	FC
00000038	D0	0F	D2	10	02	14	92	0D



Jump



CF

#### 7-1. 1PZ-001(DISPLAY)

1.Please enter the address.

**FFFFFFFF**OH

2.Press [START/STOP] key.



#### 7-1. 1PZ-001(DISPLAY)

Please set the CF Card  
before saving.

[START/STOP] : Save  
[C] : Cancel

#### 7-1. 1PZ-001(DISPLAY)

Memory data saved.

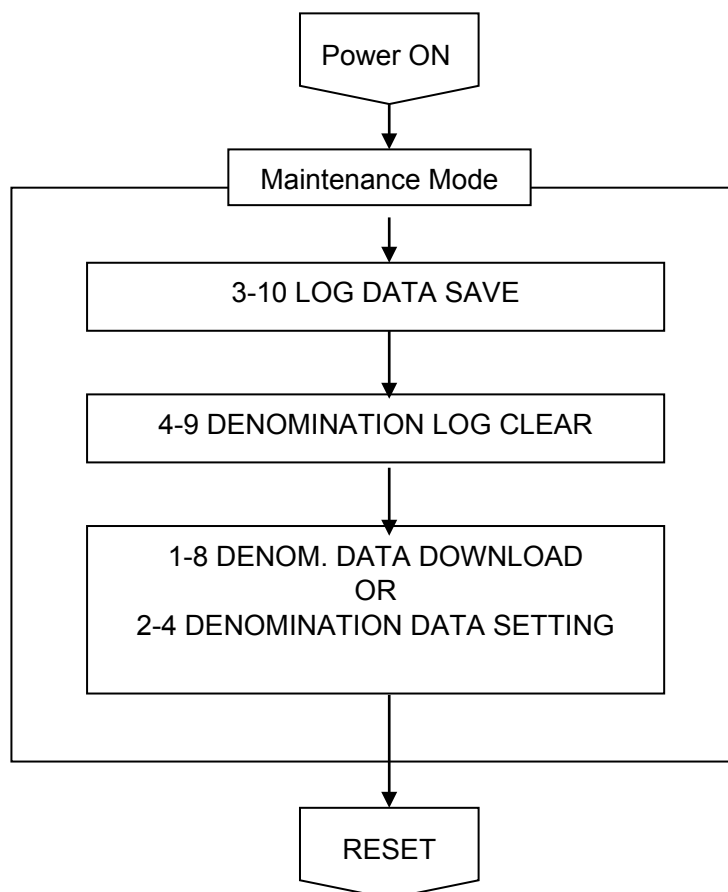
[START/STOP] or [C] : Exit

## LAC-17 MAINTENANCE MODE

### 8. DENOM. DATA UPDATE PROCEDUR

When DENOM. DATA is downloaded or DENOM DATA is changed or added, take following procedure.

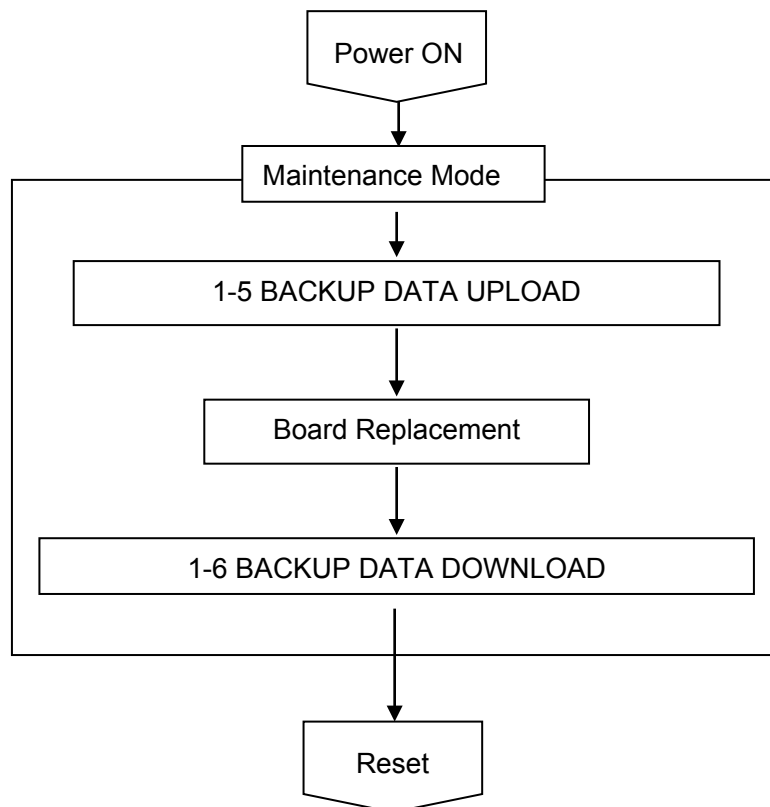
In case without respect to following procedure, the log data may not dindicate the result correctly..



## LAC-17 MAINTENANCE MODE

### 9. BOARD REPLACEMENT PROCEDURE

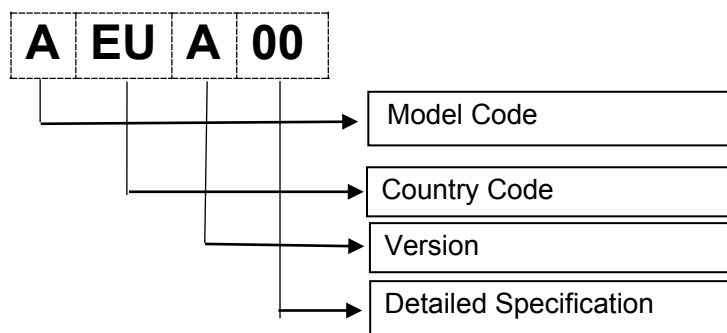
When Display Control CPU Board or Mechanism Control Board is replaced, take the procedure in order to transfer the settings form old board to new board as well as Log Data. In case the old board is damaged, it may not upload BACKUP DATA.



# LAC-17 MAINTENANCE MODE

## 10. DENOM. DATA SPECIFICATION

Sample of Denom. Data Specification



Code	Contents			
Model Code	Fixed to A for LAC17.			
Country Code	Country Code (ISO4217)			
Version	A to Z			
Detailed Specification	Max denom.	Security Chip	Local Teaching Function	Currency Pattern
	00: 16 denom. Others: 64 denom.	00: No chip 1X: Available 3X: Available 00: No function 1X: No function 3X: Availalbe	00: 1 X0: 1 X1: 2 X2: 2 X3: 3 X4: 4 X9: more than 4	