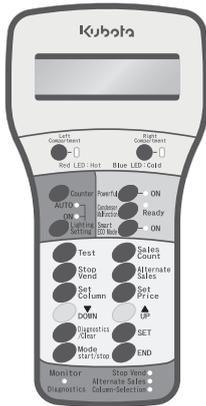




Keyboard Operation Manual



Kubota Vending Machines

Thank you for purchasing a Kubota vending machine. This manual explains how to operate the vender properly. Please read this manual and follow instructions for proper operation. Do not discard this manual after reading, and refer to it whenever there is anything uncertain.

◀ CONTENTS ▶

Part descriptions and function	1
Specified Key Function List	3
Mode Key Function List	3
Specified Key Operations	4
Single Test Vend (Key Number 0 ~ 9)	4
Coin Test Vend (Key Number 0 ~ 9)	4
Consecutive Test Vend (Select column using remote keyboard) ..	4
Sequential Test Vend	4
View/Clear Total Vend Count and Vend Count per Column ..	4
View/Clear Group Vend Count	4
View Lifetime Vend Count	5
Set/View Suspend Vending Hours/Column (Key Number 0 ~ 9) ..	5
Set/View Suspend Vending Mode	5
Set/View Alternate Sales (Key Number 0 ~ 9)	5
Set/View Product Pricing	5
View/Clear Occurring Error Code	5
Mode Key Operations	6
Group Count Setting	6
Key Number 0 ~ 9 For Sound Operation Setting	6
School Timer Hours Setting	7
Select School Timer Operation Pattern	7
Lighting Saving Hours	8
Refrigeration Unit Power Saving Hours	8
Set Clock	8
Set Month and Date	8
Set Year	9
Lighting Management Mode Setting	9
Daylight Sensor Sensitivity Setting	9
Set Counter per Groups	9
Key number 0 ~ 9 Illumination Hours	10
Set/View Stop Vending for Preservation Quality Period	11
Set/View Stop Vending Amount of Days Before Preservation Quality Period	11
Set Stop Vending Column for Preservation Quality Period	11
Error codes and Corrective Actions	12

Part descriptions and function

Temperature setting switch
* Unused. It is only for cooling

Press to select test mode

Press to stop vending

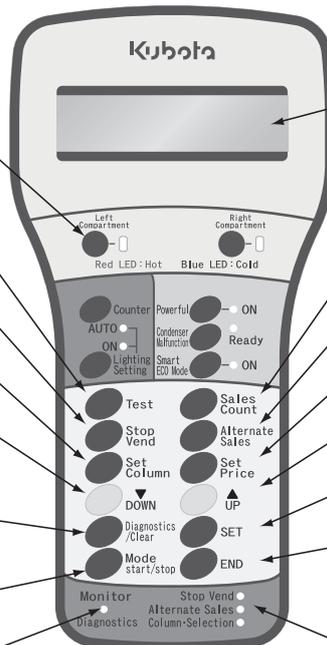
Unused

Modify settings and data

1. Press to perform diagnostics
2. Press continuously for more than 2 seconds to clear data

1. Select mode function
2. Start/Stop test vend

Flashes in case of malfunction



1. Date, hour, and total sales count will displayed during idling.
2. Failure type and number of failures will be displayed in case of malfunction occurrence

Press to select sales count mode

Press to select alternative sales

Press for price setting mode

Modify settings and data

Press to confirm

End key board operation

LED indicate the activated function

- Stop vend
- alternative sales
- column-selection

Switching HOT/COLD temperature setting

* Unused. It is only for cooling

- Powerful** Press to switch on/off powerful operation. LED will turn on while powerful operation is activated. Powerful operation will be cancelled in 2 hours from activation.
- Lighting Setting** Press to select lighting settings from "ON", "AUTO", or "OFF". LED for corresponding setting will indicate the setting. Both LEDs will turn on when it is set in "OFF".
- Smart ECO Mode** Unused
- Condenser Malfunction** LED will turn on, when condenser malfunction is detected. Please check and clean the condenser, and then press the key after it is done. Condenser is normal when the LED is not on.
- Counter** Total amount for each counter from G1 to G10 could be viewed by pressing the key.

View Counter

Press "Counter" key to view counters for each grouping.

1. Counter will indicate total amount at first. Press "Counter" key to show count by grouping. show count by grouping.
2. Next counter will be displayed by pressing the key again.
3. Indicated counter will return to that of total after the final counter.

G1	345678
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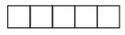
Example: G1 counter

■ Instructions and Precautions of Operation

1. The display of operation process will be displayed remote control display and on the surface of vending machine digital indicator, do the operation while viewing the indicator display.
2. Below are the meanings of symbols that appear in texts on operating procedures:

 Keyboard Key

 Key Number 0 ~ 9

 Digital indicator display on vending machine

3. Operation is complete when it is allowed to stand for about 30 seconds, which will be automatically complete.
4. Use the correct mode for setting and clearing data. Using the wrong mode may possibly lead to movement changes.
5. Ensure to press the keys with a finger. Pressing the keys with a sharp object may result in malfunction.

TPK Vending Corporation Co., Ltd.

Specified Key Function List

Key	Operation	Indicator	Function	Note
Test	press once	F 5 F 1	Single Test Vend (Key Number 0 ~ 9)	
	press twice	F 5 F 2	Coin Test Vend (Key Number 0 ~ 9)	columns selectable
	press 3 times	F 5 F 4	Consecutive Test Vend (Selection button) Consecutive Test Vend (Keyboard operated)	

Key	Operation	Indicator	Function	Note
Sales Count	press once	F L	View/Clear Total Vend Count and Vend Count per Column	0 - 999999
	press twice	F P	View/Clear Total Sales and Sales per Column	0 - 99999.9
	press 3 times	G L	View/Clear Group Vend Count	0 - 999999
	press 4 times	G P	View/Clear Group Sales Value	0 - 99999.9
	press 5 times	P L	View/Clear Vend Count per Pricing	0 - 999999
	press 6 times	P P	View/Clear Sales Value per Pricing	0 - 99999.9
	press 7 times	H	View/Clear Count of Test Vends	0 - 999999
	press 12 times	r L	View Lifetime Vend Count	0 - 999999
	press 13 times	b L	View Lifetime Vend Count for Purchase by Cash	0 - 999999
	press 14 times	L L	View Lifetime Vend Count for Purchase by Other Payments	0 - 999999
	press 15 times	r P	View Lifetime Sales Value	0 - 99999.9
	press 16 times	b P	View Lifetime Sales by Cash	0 - 99999.9
	press 17 times	L P	View Lifetime Sales by Other Payments	0 - 99999.9

Key	Operation	Indicator	Function	Note
Stop Vend	press once	H	Set/View Suspend Vending Hours/Column (Key Number 0 ~ 9)	0 - 24hours (desired column)
	press twice		Set/View Set Suspend Vending Mode	0 - 1

Key	Operation	Indicator	Function	Note
Alternate Sales	press once	G r	Set/View Alternate Sales (Key Number 0 ~ 9)	desired columns (30 Groups)

Key	Operation	Indicator	Function	Note
Set Price	press once		Set/View Product Pricing	0 - 999.9 (by 0.1s)
	press twice		Set/View Product Pricing by Cards	0 - 999.9 (by 0.1s)

Key	Operation	Indicator	Function	Note
Diagnostics / Clear	press once		View/Clear Occurring Error Code	refer to Error Code List

Basics of the Specified Key Operations

- "Specified Keys" include : (Test), (Sales Count), (Stop Vend), (Alternate Sales), (Set Column), (Set Price), (Diagnostics / Clear) keys
- Specified Keys may have single or multiple functions.
- In multi function keys, functions are selected by number of times the key is pressed.
- When Specified Key is pressed again while operating one function, it will move on to next function. It will return to the first function when the key is pressed while in the last function.
- Before moving on to next Specified Key operation, complete current operation by pressing (END) key.

Mode Key Function List

Operation	Indicator	Function	Data
MODE Start Stop	1 - 0 2	Group Count Setting	1 - 15 groups
	1 - 0 3	Multiple Purchase Setting	0 - 9 (0 = infinite)
	1 - 0 4	Set Maximum Loading Capacity	0 - 99
	1 - 0 9	Automatic Change Release Time	0-30 secs (0 = infinite)
	1 - 1 0	All Columns Free-vend	0 = No, 1 = Yes
	1 - 1 1	View / Clear Error History	
	1 - 1 2	Enter Refill Quantity	0 - 99
	1 - 1 3	Set Consume-by Date	0 - 98 days 99 = simultaneous
	1 - 1 4	Check for Columns with Expired Consume-by Date	
	1 - 1 6	Suspend Session While Loading (or Door Open) (SSL)	0 = No, 1 = Yes
	1 - 2 2	Key Number 0 ~ 9 for Sound Operation Setting	0 = No sound, 1 = Sound
	1 - 2 6	Vend Restriction on Columns with Expired Consume-by Date	0 = No, 1 = Yes
	2 - 0 1	School Timer Hours Setting	7 hours for each pattern A, B, and C
	2 - 0 2	Select School Timer Operation Pattern	0, A, B, C
	2 - 0 3	Lighting Saving Hours	Hours between 0-24
	2 - 0 4	Refrigeration Unit Power Saving Hours	Hours between 0-24
	2 - 0 5	Set Clock	00:00 - 23:59
2 - 0 6	Set Month and Date	1/1 - 12/31	
2 - 0 7	Set Year	Four digits	
2 - 1 0	Bill Validator Blocking Hours	Hours between 0-24	
2 - 1 1	Fake "No Change" Lamp During Night Time	Hours between 0-24	
2 - 1 3	Light Saving by Days	1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday, - = none	

Operation	Indicator	Function	Data
MODE Start Stop	3 - 0 1	Lighting Management Mode Setting	0 = Turning off priority 1 = Lighting priority 2 = Only the timer control 3 = Only the sensor control 4 = Timer control priority
	3 - 0 2	Daylight Sensor Sensitivity Setting	1 = Latest 2 = Late 3 = Intermediate 4 = Early 5 = Earliest
	3 - 0 3	Set Counter per Groups	Desired counter
	3 - 0 4	Set Compartment Temperature Level	0 - 10
	3 - 0 5	Lighting Failure Check Operation Sound	0 = No, 1 = Yes
	3 - 1 1	Selection Button Illumination Hours	0 = on, 1 = off, 2 = on (low volume)
	9 - 1 5	Set/ View Stop Vending for Preservation Quality Period	Hours between 0-24
	9 - 1 6	Set/ View Stop Vending Amount of Days Before Preservation Quality Period	
	9 - 1 7	Set Stop Vending Column for Preservation Quality Period	

Specified Key Operations

Single Test Vend (Key Number 0 ~ 9)

Procedure	Key	Indication	Operation
1	Test	[] [] [] [] []	Press Test Key.
2	7 Enter	[] [] [] [] []	After inputting a column number in Ten Key, when Enter Key is pressed, 1 piece of product of the column will be vended. When you need more products to be dispensed, input a column number first.
3	UP DOWN	[] [] [] [] []	Press UP or DOWN Key to select column number.
4	Mode start/stop	[] [] [] [] []	Press Mode Key, a product from selected column will be vended.
5	END	31/07/2015 12:34 T 567890	Press END Key to return to the normal operation.

- Procedures 3 and 4 are unnecessary when test vending by Ten Key.
- Test vending by Ten Key will become unavailable when procedure 3 is performed.
- How to cancel a single test vend
 - ① Leave it for 30 seconds, it will automatically be canceled.
 - ② Use the operation of "END" key.

Coin Test Vend (Key Number 0 ~ 9)

Procedure	Key	Indication	Operation
1	Test	Single Test Test 1	Press Test Key.
2	Insert Coin	Single Test Test 1	Insert coin.
3	7 Enter	Single Test Column 7	Product could be test vended.
4	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Coin test vend will not be included in the count.

Consecutive Test Vend (Select column using remote keyboard)

Procedure	Key	Indication	Operation
1	Test Press×2	Consecutive Test Test 2	Press Test Key twice.
2	UP DOWN	Consecutive Test Column 3	Press UP or DOWN key to select test column. Only one column could be selected.
3	Mode start/stop	Consecutive Test Column 3	Press Mode Key to begin testing.
4	Mode start/stop	Consecutive Test Column 3	Press Mode Key to cease testing. Press Mode Key again to resume.
5		Consecutive Test Column 3	Test session will be ended in 1 vend operations after sold out.
6	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Column selection by UP / DOWN Keys will become unavailable once column is selected by selection buttons.
- Test vending may be suspended for about 7–10 minutes to avoid overheating the solenoid.

Sequential Test Vend

Procedure	Key	Indication	Operation
1	Test Press×3	Sequential Test Test 4	Press Test Key three times.
2	Mode start/stop	Sequential Test Column 1	Press Mode Key to begin testing.
3	Mode start/stop	Sequential Test Column 3	Press Mode Key to cease testing. Press Mode Key again to resume.
4	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

View/Clear Total Vend Count and Vend Count per Column

Procedure	Key	Indication	Operation
1	Sales Count	01 Count TC 345678	Press Sales Count Key. Total number of vends from product purchase will be displayed.
2	7 Enter (Key Number 0 ~ 9)	01 Count-Column Column 7 123456	Press Ten Key to select column. Vend Count for the selected column will be displayed. Example : Column 7 123456 pcs
3	UP DOWN	01 Count-Column Column 8 234567	Press UP or DOWN Key to select column number.
4	Diagnostics/Clear	CLR 0	Press Diagnostics/Clear Key to clear Total Vend Count and Vend Count for all columns.
5	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Skip procedure 4 if not clearing data.
- "End" will appear on the display after shown data for the final column.
- By clearing total vend count, count for total sales value and sales value per column will be cleared at the same time.
- If total vends exceed 6 digits, only the lower 6 digits will be displayed.

View/Clear Group Vend Count

Procedure	Key	Indication	Operation
1	Sales Count Press×3	03 Count-Group GC 1 123456	Press Sales Count Key three times. Count of vends from product purchase for the selected group will be displayed.
2	UP DOWN	03 Count-Group GC 2 123456	Press UP or DOWN Key to select group number.
3	Diagnostics/Clear	CLR 0	Long press Diagnostics/Clear Key to clear Vend Count for all groups.
4	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Skip procedure 3 if not clearing data.
- "End" will appear on the display after shown data for the final group.
- By clearing Group Vend Count, Group Sales Value will also be cleared at the same time.
- If total vends exceed 6 digits, only the lower 6 digits will be displayed.

Specified Key Operations

View Lifetime Vend Count

Procedure	Key	Indication	Operation
1	Sales Count Press x12	12 Count-Total rC 901234	Press Sales Count Key twelve times. Lifetime count of vends from product purchase will be displayed.
2	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

* If total count exceeds 6 digits, only the lower 6 digits will be displayed.

Set/View Suspend Vending Hours/Column (Key Number 0 ~ 9)

Procedure	Key	Indication	Operation
1	Stop Vend	Suspend Column Hour 0	Press Stop Vend Key.
2	UP DOWN	Suspend Column Hour "1"	Press UP or DOWN Keys to select hours.
3	SET	Suspend Column Hour 1	Press SET Key to confirm hours.
4	7 Enter	[][][][]	After inputting a column number to be set using Ten Key, press Enter Key. If you want to check the set column, press Enter Key. If you want to cancel the setting, input [0] and press Enter key on the column number when it is active.
5	END	31/10/2012 12:34 T 567890	Press END Key to return to normal operation.

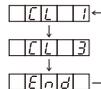
* To only view current setting, skip procedures 2~4 and press Enter Key.

* Suspend timer will not be enabled until procedure 5 is completed.

* Hours on the display is total length of the suspending period; not remaining hours.

* Set up both, hours and columns completely.

When either hour is set to 0 or column is not selected, this function will not be enabled.



Set/View Suspend Vending Mode

Procedure	Key	Indication	Operation
1	Stop Vend Press x2	Suspend Mode Auto Set OFF 1	Press Stop Vend Key twice.
2	UP DOWN	Suspend Mode Auto Set OFF "0"	Press UP or DOWN Key to select mode.
3	SET	Suspend Mode Auto Set ON 0	Press SET Key to confirm setting.
4	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

* Available settings:

0 : Enable automatic intervention

1 : Disable automatic intervention

* Skip procedures 2 and 3 when only viewing current setting.

* When this function is set to 0 (Enable automatic intervention), whenever a column is refilled and recovers from sold-out condition, vender will automatically suspend vend according to "Set Suspend Vending Hours/Columns" setting.

Set/View Alternate Sales (Key Number 0 ~ 9)

Procedure	Key	Indication	Operation
1	Alternate Sales	[][][][]	Press Alternate Sales Key.
2	7 Enter	[][][][]	After inputting a column number to be set by Ten Key, press Enter Key. If you are about to check a specified column, press Enter Key. If you want to cancel the setting, input [0] and press Enter Key when the column number is active.
3	UP DOWN	[][][][]	Press UP or DOWN Key to select group.
4	Diagnostics/Clear	[][][][]	Long press Diagnostics/Clear Key for more than 2 seconds to clear all alternate sales setting.
5	END	31/10/2012 12:34 T 567890	Press END Key to return to normal operation.

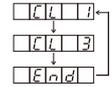
* "End" will appear on the display after reached the final group. Press UP or DOWN key to return to the beginning.

* Single column can not be assigned to multiple alternate sales groups.

* Columns with different pricing can not be assigned to similar alternate sales group.

* Perform procedure 4 only when clearing all alternate group setting.

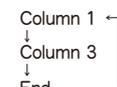
* If just want to check, press and hold Enter key when the group is displayed; a corresponding column number will be displayed.



Set/View Product Pricing

Procedure	Key	Indication	Operation
1	Set Price	Set Price 0.0	Press Set Price Key.
2	UP DOWN	Set Price 2.0	Press UP or DOWN Key to select pricing.
3	7 Enter	Set Price Column 7	After inputting the column number to be set using Ten Key, press Enter Key. If you want to check a specified column, press Enter Key. Column numbers will be displayed in sequence. When you want to change to another price, return to procedure 2.
4	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

* In the column setting check, when the price is displayed, press Enter Key. For example: When columns 1 and 3 are being set.



In addition, when "SET" Key is pressed, the price check starting from column 1 can be done.

* Pricing Range 0 ~ 999.9

* Skip procedure 3 if only viewing the setting.

* Repeat procedures 2 and 3 to continuously set up other pricings.

※ If the machine is capable of cashless payment, press "Set Price" Key twice during procedure 1 to adjust price setting for purchase by cards.

View/Clear Occurring Error Code

Procedure	Key	Indication	Operation
1	Diagnostics/Clear	Coin-mech err 10	Press Diagnostics/Clear Key. "End" will be displayed if there is no error.
2	UP DOWN	End	Press UP key to view next error code.
3	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation

* Error code will automatically clear when the error is repaired.

* If Diagnostics/Clear Key is long-pressed for more than 2 seconds while in procedure 2, all error codes will be cleared.

However, errors that are not repaired shall reappear.

Mode Key Operations

Group Count Setting

1-02

Proce- -dure	Key	Indication	Operation
1		Group Counts "1"-02	Press Mode Key.
2		Group Counts 1-02	Press Set Key.
3		Group Counts Group "1"	Press Set Key. Group number will appear on the display.
4		Group Counts Group "5"	Press UP or DOWN Key to select group number.
5		Group Counts Group 5	Press Set Key to confirm the setting.
6		Group Counts Column 7	After inputting a column number to be set using Ten Key, press Enter Key. If you want to check the set column, press Enter Key. If you want to cancel the setting, input [0] and press Enter key on the column number when it is active.
7		Group Counts Group 7	Press UP or DOWN Key to move on to next group.
			Repeat procedures 5-7 to complete set up for all groups.
8		31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

Key Number 0~9 For Sound Operation Setting

1-22

Proce- -dure	Key	Indication	Operation
1		Group Counts "1"-02	Press Mode Key.
2		Group Counts 1-02	Press Set Key.
3		0 - 9 Key Sound 1-22	Press UP or DOWN Key to select function number 22.
4		0 - 9 Key Sound OFF "0"	Press Set Key, it will be in setting mode of key number 0 ~ 9, and the data being set will be displayed. Example 0: key number 0 ~ 9 to set operation without sound.
5		0 - 9 Key Sound ON "1"	Press UP or DOWN Key, the data will change. Example 1: key number 0 ~ 9 to set operation with sound.
6		0 - 9 Key Sound ON 1	Press Set Key to confirm the setting.
7		31/10/2012 12:34 T 567890	Press END Key to return to the normal operation.

Mode Key Operations

School Timer Hours Setting 2-01

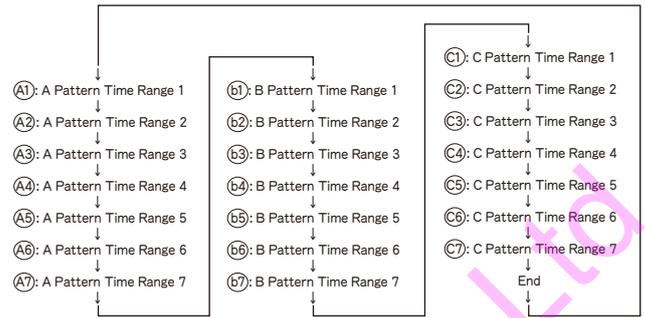
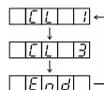
Procedure	Key	Indication	Operation
1	Mode Start/sto	Group Counts "1"-02	Press Mode Key.
2	UP/DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer "2"-01	Press Set Key.
4	SET	School Timer "A1"	Press Set Key again.
5	UP/DOWN	School Timer "b3"	Press UP or DOWN Key to select setting.
6	SET	School Timer b3 Begin "0000"	Press Set Key.
7	UP/DOWN	School Timer b3 Begin "0800"	Press UP or DOWN Key to set start time. (Hours)
8	SET	School Timer b3 Begin "0800"	Press Set Key to confirm setting.
9	UP/DOWN	School Timer b3 Begin "0815"	Press UP or DOWN Key to set start time. (Minutes)
10	SET	School Timer b3 End "0000"	Press Set Key.
11	UP/DOWN	School Timer b3 End "0800"	Press UP or DOWN Key to set end time. (Hours)
12	SET	School Timer b3 End "0800"	Press Set Key.
13	UP/DOWN	School Timer b3 End "0845"	Press UP or DOWN Key to set end time. (Minutes)
14	SET	School Timer "b4"	Press Set Key.
Repeat procedures 5 - 14 to complete set up.			
15	Diagnostics/ Clear	School Timer "b1"	All time range settings in current pattern will be cleared when Clear Key is long-pressed during time range setting. Press Set Key to confirm setting.
16	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- There are 3 available settings, A - C. Each setting could have 7 sales time range.
- Setting range is between 00:00 - 23:59.
- Setting pattern could be selected for each day in a week in "Select School Timer Operation Pattern" function.
- Setting Procedure:
- Key number 0 ~ 9

In procedure 4, using key numbers 0 ~ 9 after inputting a column number to be set, press Enter Key. The selected column will be the object other than the sales timing (continuous sales).

If an object other than the sales timing (continuous sales) is cleared, while the column number is active, input and enter [0].

If you want to check the current input, you do not need to perform procedures 5 ~ 15, continue to press "Enter" Key on Ten key.



• "End" will appear on the display after reached the final time range. Press UP or DOWN Key to return to the beginning or the last.

Select School Timer Operation Pattern 2-02

Procedure	Key	Indication	Operation
1	Mode Start/sto	Group Counts "1"-02	Press Mode Key.
2	UP/DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer "2"-01	Press Set Key.
4	UP/DOWN	School Timer DAY "2"-02	Press UP or DOWN Key to select function number 2.
5	SET	1: Sunday Not Set "0"	Press Set Key.
6	UP/DOWN	1: Sunday Pattern "A"	Press UP or DOWN Key to select setting.
7	SET	2: Monday Not Set "0"	Press SET Key. Next day will appear on the display.
Repeat procedures 6 and 7 to complete set up.			
8	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Denotation:
Days
1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 = Saturday, End
Pattern
0 = No vend restriction, A = A Pattern Time Range, b = b Pattern Time Range, C = C Pattern Time Range
- Time range setting must be set in "School Timer Hours Setting" function when either operation pattern is selected.
- Example of set up: = Selling Hours

Day	Pattern	Hours
Sunday	0	0:00 to 24:00 (No selling hours)
Monday	A	A1: 01:00-04:00, A2: 05:00-07:00, A3: 08:00-10:00, A4: 11:00-13:00, A5: 15:00-16:00, A6: 17:00-19:00, A7: 20:00-21:00
Tuesday	A	A1: 01:00-04:00, A2: 05:00-07:00, A3: 08:00-10:00, A4: 11:00-13:00, A5: 15:00-16:00, A6: 17:00-19:00, A7: 20:00-21:00
Wednesday	A	A1: 01:00-04:00, A2: 05:00-07:00, A3: 08:00-10:00, A4: 11:00-13:00, A5: 15:00-16:00, A6: 17:00-19:00, A7: 20:00-21:00
Thursday	A	A1: 01:00-04:00, A2: 05:00-07:00, A3: 08:00-10:00, A4: 11:00-13:00, A5: 15:00-16:00, A6: 17:00-19:00, A7: 20:00-21:00
Friday	b	b1: 06:00-08:00, b2: 09:00-14:00, b3: 15:00-18:00
Saturday	C	C1: 06:00-18:00

- A1 : 01:00 ~ 04:00
- A2 : 05:00 ~ 07:00
- A3 : 08:00 ~ 10:00
- A4 : 11:00 ~ 13:00
- A5 : 15:00 ~ 16:00
- A6 : 17:00 ~ 19:00
- A7 : 20:00 ~ 21:00
- B1 : 06:00 ~ 08:00
- B2 : 09:00 ~ 14:00
- B3 : 15:00 ~ 18:00
- B4 : Not Set
- B5 : Not Set
- B6 : Not Set
- B7 : Not Set
- C1 : 06:00 ~ 18:00
- C2 : Not Set
- C3 : Not Set
- C4 : Not Set
- C5 : Not Set
- C6 : Not Set
- C7 : Not Set

Mode Key Operations

Lighting Saving Hours 2-03

2-03

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer 2-01	Press Set Key.
4	UP DOWN	Light Save Hours 2-03	Press UP or DOWN Key to select function number 3.
5	SET	Light Save Hours 0000	Press Set Key.
6	UP DOWN	Light Save Hours 0700	Press UP or DOWN Key to set start time.
7	SET	Light Save Hours 0700	Press Set Key to confirm setting.
8	UP DOWN	Light Save Hours 0717	Press UP or DOWN Key to set end time.
9	SET	Light Save Hours 0717	Press Set Key.
10	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- System uses 24 hour clock.
 - Setting range is 0 - 24.
 - * Light saving will be disabled when set to 0000.
- NOTE: Set "Lighting Setting" switch to "AUTO".

Set Clock 2-05

2-05

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer 2-01	Press Set Key.
4	UP DOWN	Clock NOW 2-05	Press UP or DOWN Key to select function number 5.
5	SET	Clock NOW 0000	Press Set Key.
6	UP DOWN	Clock NOW 1200	Press UP or DOWN Key to set clock hour.
7	SET	Clock NOW 1200	Press Set Key.
8	UP DOWN	Clock NOW 1234	Press UP or DOWN Key to set clock minute.
9	SET	Clock NOW 1234	Press Set Key, and current time will be displayed.
10	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- System uses 24 hour clock.

Refrigeration Unit Power Saving Hours 2-04

2-04

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer 2-01	Press Set Key.
4	UP DOWN	Unit Save Hours 2-04	Press UP or DOWN Key to select function number 4.
5	SET	Unit Save Hours 0000	Press Set Key.
6	UP DOWN	Unit Save Hours 0200	Press UP or DOWN Key to set start time.
7	SET	Unit Save Hours 0200	Press Set Key.
8	UP DOWN	Unit Save Hours 0208	Press UP or DOWN Key to set end time.
9	SET	Unit Save Hours 0208	Press Set Key.
10	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- System uses 24 hour clock.
- Selectable hours are from 0 ~ 24.
- * Power Saving will be disabled when set to 0000.

Set Month and Date 2-06

2-06

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer 2-01	Press Set Key.
4	UP DOWN	Month/Date NOW 2-06	Press UP or DOWN Key to select function number 6.
5	SET	Month/Date NOW 0101	Press Set Key.
6	UP DOWN	Month/Date NOW 1001	Press UP or DOWN Key to set Month.
7	SET	Month/Date NOW 1001	Press Set Key.
8	UP DOWN	Month/Date NOW 1023	Press UP or DOWN Keys to set Day.
9	SET	Month/Date NOW 1023	Press Set Key, and current date will be displayed.
10	END	23/10/2015 12:34 T 567890	Press END Key to return to normal operation.

Mode Key Operations

Set Year 2-07

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	School Timer "2"-01	Press UP or DOWN Key to select mode number 2.
3	SET	School Timer 2-01	Press Set Key.
4	UP DOWN	Year NOW 2-07	Press UP or DOWN Key to select function number 7.
5	SET	Year NOW "2011	Press Set Key.
6	UP DOWN	Year NOW "2013	Press UP or DOWN Key to set Year.
7	SET	Year NOW 2013	Press Set Key, and current year will be displayed.
8	END	31/07/2013 12:34 T 567890	Press END Key to return to normal operation.

Daylight Sensor Sensitivity Setting 3-02

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	Light Management "3"-01	Press UP or DOWN Key to select mode number 3.
3	SET	Light Management 3-01	Press Set Key.
4	UP DOWN	Daylight Sensor 3-02	Press UP or DOWN Key to select function number 2.
5	SET	Daylight Sensor Early "4	Press Set Key.
6	UP DOWN	Daylight Sensor Latest "1	Press UP or DOWN Key to select setting.
7	SET	Daylight Sensor Latest 1	Press Set Key to confirm setting.
8	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Available settings
- 1= Latest
- 2= Late
- 3= Intermediate
- 4= Early
- 5= Earliest

Lighting Management Mode Setting 3-01

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	Light Management "3"-01	Press UP or DOWN Key to select mode number 3.
3	SET	Light Management 3-01	Press Set Key.
4	SET	Light Management Lighting PRI "1	Press Set Key again.
5	UP DOWN	Light Management Off PRI "0	Press UP or DOWN Key to select setting. (See denotation below.)
6	SET	Light Management Off PRI 0	Press Set Key.
7	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Available settings:
 - 0: Off PRI = Lights will stay off during light saving hours regardless of darkness.
 - 1: Lighting PRI = Lights will turn on even during light saving hours when it gets dark.
 - 2: Only Timer = Disables daylight sensor, and controls the lighting only by timer.
 - 3: Only Sensor = Disables timer, and controls the lighting only by daylight sensor.
 - 4: Timer PRI = Lights will be turned off only during light saving hours. However, daylight sensor will be enabled when start time and end time of light saving hour is set to same time.
- NOTE: Set "Lighting Setting" switch to "AUTO".

Set Counter per Groups 3-03

(This function may not be available depending on the model.)

Procedure	Key	Indication	Operation
1	Mode start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	Light Management "3"-01	Press UP or DOWN Key to select mode number 3.
3	SET	Light Management 3-01	Press Set Key.
4	UP DOWN	Count per Group 3-03	Press UP or DOWN Key to select function number 3.
5	SET	Count per Group Group "1	Press Set Key.
6	UP DOWN	Count per Group Group "2	Press UP or DOWN Key to select group.
7	7 Enter	Count per Group Column 7	After inputting a column number to be set using Ten Key, press Enter Key. If you want to check the set column, press Enter Key. If you want to cancel the setting, input [0] and press Enter key on the column number when it is active.
8	UP DOWN	Count per Group Group "3	Press UP or DOWN Key to move on to next group.
9	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Counter per pricings will be disabled when counter per groups is set.
- Up to 10 counters could be set up.

Mode Key Operations

Key number 0 ~ 9 Illumination Hours 3-31

Procedure	Key	Indication	Operation
1	Mode Start/sto	Group Counts "1"-02	Press Mode Key.
2	UP DOWN	Light Management "3"-01	Press UP or DOWN Key to select mode number 3.
3	SET	Light Management 3-01	Press Set Key.
4	UP DOWN	Illumination TM 3-31	Press UP or DOWN Key to select function number 31.
5	SET	Illumination TM 0000	Press Set Key.
6	UP DOWN	Illumination TM 0800	Press UP or DOWN Key to select illumination beginning hour. (Upper 2 digits are the beginning hour.)
7	SET	Illumination TM 0800	Press Set Key to confirm setting.
8	UP DOWN	Illumination TM 0817	Press UP or DOWN Key to select illumination ending hour. (Lower 2 digits are the ending hour.)"
9	SET	Illumination TM 0817	Press Set Key to confirm setting.
10	END	31/07/2015 12:34 T 567890	Press END Key to return to normal operation.

- Selectable hours are from 0 ~ 24.
- When beginning and ending hours are set at similar time (e.g. 0024) illumination will be consistently turned on.
- Illumination will not turn on at following conditions:
 - Key number 0 ~ 9 illumination setting is set in "0".
 - Key number 0 ~ 9 illumination hours are set in "0000" or hours out of preset illumination hours.
 - Out of service.
 - Middle door.

Mode Key Operations

Set/View Stop Vending for Preservation Quality Period 9 – 15

Procedure	Key	Indication	Operation
1		Group Counts "1"-02	Press Mode Key.
2		"9"-01	Press UP or DOWN Key to select mode number 9.
3		9-01	Press Set Key.
4		QUA Stop Date 9-15	Press UP or DOWN Key to select mode number 15.
5		QUA Stop Date "0000	Press Set Key, it will turn into input mode of setting date stop vending for Preservation Quality Period. (2 digits, up: Month, 2 digits, down: Day)
6		QUA Stop Date "0300	Press UP or DOWN Key to setting month. Example: "03" is March
7		QUA Stop Date 0300	Press Set Key and the month setting is complete, and then go to the day setting mode.
8		QUA Stop Date 0312	Press UP or DOWN Key to set the day. Example: "12" is the date
9		QUA Stop Date 0312	Press Set Key to confirm the setting.
10		23/10/2012 12:"34 T 567890	Press END Key to return to normal operation.

- This setting is to set the date and month for Preservation Quality Period.
To stop vending a day after the Preservation Quality Period setting.
- The determination is made at the turn of the day.
How to clear the function [Set/ View Stop Vending for Preservation Quality Period].
When the inner door is opened after setting, this function can be cleared.
Also, if the keyboard is not reset after cancellation, the keyboard checking light will blink, error code 3211 will appear, and vending of the column will be stopped.
- When the function is not in use, set using [0000].
- When vending is stopped in the set day, the keyboard checking light will blink, error code 3210 will appear.
- This function will operate in conjunction with the functions [Mode 9 - 16: Set/ View Amount of days before stop vend Preservation Quality Period].
- Prior to setting of this function, be sure to first set the current date, month, and year. Also, once the function starts, when the date, month and year are reset, then it will not work. Please be careful.

Set/View Stop Vending Amount of Days Before Preservation Quality Period. 9 – 16

Procedure	Key	Indication	Operation
1		Group Counts "1"-02	Press Mode Key.
2		"9"-01	Press UP or DOWN Key to select mode number 9.
3		9-01	Press Set Key.
4		QUA Stop Before 9-16	Press UP or DOWN Key to select mode number 16.
5		QUA Stop Before "0"	Press Set Key, it will turn into input mode of setting date stop vending for Preservation Quality Period.
6		QUA Stop Before "5"	Press UP or DOWN key, it will set the amount of days for stop vending Preservation Quality Period.
7		QUA Stop Before 5	Press Set Key to confirm the setting.
8		31/10/2012 12:"34 T 567890	Press END Key to return to normal operation.

- How to set and clear the function [Set/View Stop Vending Amount of Days Before Preservation Quality Period].
<How to set>
After setting the function [Set/View Stop Vending Amount of Days Before Preservation Quality Period], (Mode 9-15) do the setting as described above.
<How to clear>
After setting the function [Set/View Stop Vending Amount of Days Before Preservation Quality Period], set into [0].
- This function moves simultaneously with the function [mode 9-15: Set/ View Stop Vending for Preservation Quality Period].
- Input amount of days in excess of the setting days for expired product cannot be done.

Set Stop Vending Column for Preservation Quality Period 9 – 17

Procedure	Key	Indication	Operation
1		Group Counts "1"-02	Press Mode Key.
2		"9"-01	Press UP or DOWN Key to select mode number 9.
3		9-01	Press Set Key.
4		QUA Stop Column 9-17	Press UP or DOWN Key to select mode number 17.
5		QUA Stop Column Column --	Press Set Key, it will be in the column setting mode.
6		QUA Stop Column 7	After inputting the column number to be set using Ten Key, press Enter Key. If you want to check a specified column, press Enter Key. If you want to delete the setting, input [0] and press Enter when the column number is active.
7		31/10/2012 12:"34 T 567890	Press END Key to return to normal operation.

- If you just want to check, press and hold Enter Key on the state of procedure 5. A relevant column number will be displayed.

Error codes and Corrective Actions

Coin Mechanism related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns	
1 0	Coin-mech communication error	Check harness and connectors for disconnection.	Reconnect harness. If there seems to be no problem, replace the coin mech.	Insert coin of all types, check for correct reading. Insert coin of all types, operate coin return lever, check correct payout.	All Columns	
1 1	Acceptor jammed error	Check coin selector for jammed coin.	Remove jammed coin. If there seems to be no problem, replace the selector or coin mech.			
1 5	Return switch error	Coin return lever stuck.	If there seems to be no problem, replace the coin mech.			
1 6	Coin payout failure	Check payout area for jammed coin.	Remove jammed coin. If there seems to be no jam, replace the coin mech.			
1 7	Safety switch error	Check that coin tube cassette is installed correctly.	Reinstall coin tube cassette in correct position. If there seems to be no problem, replace the coin mech.			
1 8	Pulse switch error	Check payout area for jammed coin.	Remove jammed coin. If there seems to be no jam, replace the coin mech.			
1 9	Acceptor error	Check that coin selector is in correct position.	Secure coin selector in correct position. If there seems to be no problem, replace the coin mech.			
2 0	Tube sensor error	Check coin tube sensor.	If there seems to be no problem, replace the coin mech.			Check the function of "out of change" lamp by filling and removing the coins in the tube.
2 5	Coin sensor error	Check coin selector for jammed coin. Inspect coin selector.	If there seems to be no problem, replace the selector or coin mech.			Insert coin of all types, check for correct reading. Insert coin of all types, operate coin return lever, check correct payout.
2 6	Sensor A error					
2 7	Sensor B error					
2 8	Sensor C error					

Error codes and Corrective Actions

Vending system related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns		
3 4	Selection switch error	Check for stuck selection button with sold-out.	If there seems to be no problem, replace the selection button.	Similar error shall not occur within 1 minute after correction.	Corresponding Column		
3 5	Delivery port switch error	Delivery port door is always open.	Checking and replacement of the delivery port switch.	Checking error code outage.	All columns		
3 8	Vend management error	Check delivery and vend mechanism.	If there seems to be no problem, replace the component.	Conduct test vend.	Corresponding Column		
4 1	Dispensing motor failure						
1538	Power is interrupted when delivering products	Checking the dispensing part and delivery part.	Checking and replacement of dispensing part and delivery part.	Hold a test vend.	Relevant columns		
3200	X-way movement motor lock, SW X-starting point are abnormal	Checking the X-way movement motor lock and the SW X-starting point.	Checking and replacement of the motor lock the movement of the X-way movement motor lock and the SW X-starting point.	Hold a test vend.	All columns		
3201	Y-way movement motor lock, SW Y-starting point are abnormal	Checking the Y-way movement motor lock and the SW Y-starting point.	Checking and replacement of the motor lock the movement of the Y-way movement motor lock and the SW Y-starting point.				
3202	X-way movement motor lock, X photo sensor are abnormal	Checking the X-way movement motor lock and the X photo sensor.	Checking and replacement of the X-way movement motor lock and the X photo sensor.				
3203	Y-way movement motor lock, Y photo sensor are abnormal	Checking the Y-way movement motor lock and the Y photo sensor.	Checking and replacement of the Y-way movement motor lock and the Y photo sensor.				
3204	Motor lock link, SW standby link are abnormal	Checking the motor link and the SW standby link.	Checking and replacement of the motor link and the SW standby link.				
3205	Motor lock link, SW movement link are abnormal	Checking the motor link and the SW movement link.	Checking and replacement of the motor link and the SW movement link.				
3206	Delivery motor lock, product detector sensor are abnormal	Checking the delivery motor and the product detector sensor.	Checking and replacement of the delivery motor and the product detector sensor.				
3207	SW Bucket door is abnormal	Checking the SW Bucket door.	Checking and replacing SW bucket door.				
3210	Preservation quality period occurs	Checking the products and checking the preservation quality period.	Checking and replacement, resetting the preservation quality period.			Error code is missing.	Relevant columns
3211	Need to reset preservation quality period	Checking the preservation quality period.	Resetting the preservation quality period.				

Memory related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
5 0	Clock data error	Check current time setting on the keyboard.	Reset current time setting.	Check current time setting on the keyboard.	—
5 1	Memory data error	Check data on the keyboard.	Reset all data.	Check all data on the keyboard.	All Columns
5 3	Invalid model assignment	Check model code setting.	Set correct model code.	Check space to sales setting by test vending.	—
5 4	Selection button settings error	Check for column not assigned to any selection button.	Redo space to sales setting.		

Communications related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
6 1	Selection indicator communication error	Check slave control board. Check harness and connectors for disconnection.	If there seems to be no problem, replace the slave control board.	Test vend by coins.	All Columns
6 2	Product delivery unit communication error				
6 4	Printer communication error	Check printer connector for disconnection.	If there seems to be no problem, replace the printer.	Operate printer.	—
6 7	Keyboard unit communication error	Check keyboard connector for disconnection.	If there seems to be no problem, replace the keyboard.	Check keyboard function and display.	
7 1	Bill validator communication error	Check harness and connectors for disconnection.	Reconnect harness.	Test if the bill or card could be properly accepted, returned and vend.	
7 3	Card unit communication error		If there seems to be no problem, replace the bill validator or card unit.		

Error codes and Corrective Actions

Bill Validator related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
8 0	Jammed bill	Check for jammed bill.	Remove jammed bill.	Check if the bill could be properly accepted and returned. Error code cleared.	—
8 1	Bill dispensing error				
8 2	Cashbox full	Empty the cashbox.	Collect bill.		
8 3	Stacker error	Check that stacker lid is closed correctly.	Close the lid.		
8 4	Identifier error	Check for jammed bill.	Remove jammed bill.		
8 5	Safety switch error	Check condition of the identifier.	Close back lid of the identifier.		
8 6	Cashbox unlocked	Check that cashbox lid is closed correctly.	Close the lid.		
8 7	Bill extracted	Detected bill extraction , check for jammed bill.	Leave it for 30 minutes, or open and shut the lid.		

Cooling and heating system related

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
4 2	Food ingredient health error	Checking the temperature inside the cooling chamber	Checking the inside chamber and the middle door	Checking the malfunction code by opening the middle door (opening angle above 30° for 3 seconds)	Relevant columns
9 0	Cooling unit failure	Check slave control board connector for disconnection. Check refrigeration unit.	If there seems to be no problem, replace the slave control board or refrigeration unit.	Similar error shall not occur within two days after correction.	Corresponding Column
9 1	Heating unit failure	Check slave control board connector for disconnection. Check heating unit.	If there seems to be no problem, replace the slave control board or heating unit.	Similar error shall not occur within a day after correction.	
9 6	Door switch error	Check main door switch.	If there seems to be no problem, replace the main door switch.	Error code shall respond to opening and closing of the door.	—
500	Clogged condenser warning	Check condition of the condenser.	Clean the condenser.	Clear error code by pressing Diagnostics/Clear key on the keyboard, or press Condenser Malfunction key.	
501	HOT / COLD setting error	Check HOT/COLD selection switch. Check harness and connectors for disconnection.	Redo setting correctly. Reconnect harness.	Error code cleared.	
502	Compartment 1 fan failure	Check compartment 1 fan motor.	Reconnect harness.		
503	Compartment 2 fan failure	Check compartment 2 fan motor.	If there seems to be no problem, replace fan motor.		
504	Compartment 3 fan failure	Check compartment 3 fan motor.	(CAUTION: Always reset the machine by switching the power ON/OFF after corrective action.)		
505	Compartment 4 fan failure	Check compartment 4 fan motor.			
506	Condenser Fan Failure	Check condenser fan motor.			
550	Condenser thermistor error	Check condenser thermistor connector for disconnection.	Reconnect harness. If there seems to be no problem, replace the thermistor. (CAUTION: Always reset the machine by switching the power ON/OFF after corrective action.)		
552	External thermistor error	Check condenser external thermistor connector for disconnection.			
555	Compartment 1 evaporator thermistor error	Check compartment 1 evaporator thermistor connector for disconnection.			
560	Compartment 2 evaporator thermistor error	Check compartment 2 evaporator thermistor connector for disconnection.			
565	Compartment 3 evaporator thermistor error	Check compartment 3 evaporator thermistor connector for disconnection.			
559	Compartment 1 thermistor error	Check compartment 1 thermistor connector for disconnection.			
564	Compartment 2 thermistor error	Check compartment 2 thermistor connector for disconnection.			
569	Compartment 3 thermistor error	Check compartment 3 thermistor connector for disconnection.			
574	Compartment 4 thermistor error	Check compartment 4 thermistor connector for disconnection.			

Error codes and Corrective Actions

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
557	Compartment 1 delivery thermistor error	Check compartment 1 delivery thermistor connector for disconnection.	Reconnect harness. If there seems to be no problem, replace the thermistor. (CAUTION: Always reset the machine by switching the power ON/OFF after corrective action.)	Error code cleared.	—
562	Compartment 2 delivery thermistor error	Check compartment 2 delivery thermistor connector for disconnection.			
567	Compartment 3 delivery thermistor error	Check compartment 3 delivery thermistor connector for disconnection.			
572	Compartment 4 delivery thermistor error	Check compartment 4 delivery thermistor connector for disconnection.			
3208	Move insulation detection of SW abnormal	Check setting of Hot / Cold Check SW of move insulation	Change setting of Hot / Cold Change checking SW of move insulation	Check power failure code	
3209	Fixed insulation detection of SW abnormal	Check setting of Hot / Cold Check SW of fix insulation	Change setting of Hot / Cold Change checking SW of fix insulation		

Other

Error codes	Occurring Error	Check point	Action	Recovery verification	Sold-out columns
3220	Noise Filter board fuse blown detection error	Check Noise Filter board	If there seems to be no problem, replace the Noise Filter board.	Error code cleared.	—