

Confidential

Home Automation
SHT-7171XM/EN

SERVICE Manual

SHT-7171XM/EN

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Please read this manual carefully before you start installing and operating the product. Use the product correctly and safely as explained in this manual.

This manual is subject to change as functions are improved or design is changed. When you need to updated manual or have any question about the manual, please contact the following address or homepage.

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Foreword

Introduction of Manual

This manual explains the overview and the specification of SHT-7171XM/EN (3-directions), how to assemble and disassemble the product and its hardware circuit. In addition, the manual explains problems and solutions that you might encounter when you use the telephone and provides various diagrams, layouts of parts, part drawings and list of parts.

Composition of Manual

This manual consists of 11 chapters. The followings are the summaries of the chapters:

[Chapter 1. Introduction of Product](#)

This chapter explains the configuration of Home Automation, the name of each part and functions.

[Chapter 2. Disassembly and Assembly](#)

This chapter provides the exploded view of Home Automation SHT-7171XM/EN.

[Chapter 3. Product Installation and Configuration Diagram](#)

This chapter explains the installation of Home Automation SHT-7171XM/EN and provides its configuration diagram.

[Chapter 4. Check and Diagnosis](#)

This chapter contains the checklist for the correct operation of Home Automation SHT-7171XM/EN.

[Chapter 5. Troubleshooting](#)

This Chapter explains problems and solutions that you encounter when you use Home Automation SHT-7171XM/EN.

[Chapter 6. Installation and Test](#)

This Chapter explains how to install and test the product for A/S.

[Chapter 7. Product Initialization](#)

This chapter explains how to initialize Home Automation SHT-7171XM/EN.

[Chapter 8. Circuit Description](#)

This chapter describes the configuration and features of circuits in each part of Home Automation SHT-7171XM/EN.

[Chapter 9. Circuit Diagram](#)

This chapter provides the circuit diagram of Home Automation SHT-7171XM/EN.

[Chapter 10. List of Parts](#)

This chapter contains the list of parts of Home Automation SHT-7171XM/EN.

[Chapter 11. Part Layout](#)

This chapter provides the part layouts of Home Automation SHT-7171XM/EN.

Related Material

[User Manual of Home Automation SHT-7171XM/EN](#)

This manual explains how to use Home Automation SHT-7171XM/EN.

Safety Cautions

This part provides the knowledge that users know to use the product correctly and safely.

Please read the followings carefully before you install and operate the product.

Conventions in each item



Caution

Indicates contents that a user should give caution to.



Prohibition

Indicates actions that are prohibited in handling the product.



Instruction

Indicates specific action that a user should do.



Warning



Power Disconnection

You should disconnect power when repairing the product.

Otherwise, power may cause fire or electric shock.



Caution after repair

You should check that a material piece remains inside the telephone after repairing it.

The remaining material piece may cause fire or damage a part.



Caution when connecting power

You should not use damage power plug or code or loosing consent.

They may cause fire or electric shock.



Caution

Caution of Damaged ESD (Electrostatic Sensitive Device)



You should give caution to static electricity when handling a board or a part.

Static electricity may damage the product. Thus, wear a wrist straps before handling a board or a part.

Caution of Conductible Material



When disassemble a board and connecting power code, do not put the board near a metal or conductible material.

Caution of Power Adapter



You should use the power adapter (220V) enveloped in the product package to connect the telephone to the power port. Using a power adapter provided by other vendor may damage the telephone seriously.

Caution in Assembly



After repairing the product, you should install all connectors and screws.

Once the assembly is completed, there should be no chink between the upper and lower cases.

Using standard part



You should always use standard part when repairing the product.

Using non-standard part may cause the malfunction of the product.

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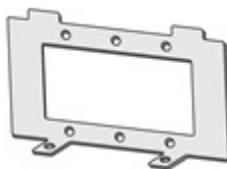
Chapter 1. Introduction of Product

This chapter describes the configuration of Home Automation SHT-7171XM/EN (3-Directions), the name and the function of each part and the specifications.

1.1 Configuration

The followings explain the configuration of SHT-7171XM/EN, components of the product and the name and the function of each part.

1.1.1 Components of SHT-7171XM/EN



Mount Bracket
1EA



User Manual
1EA



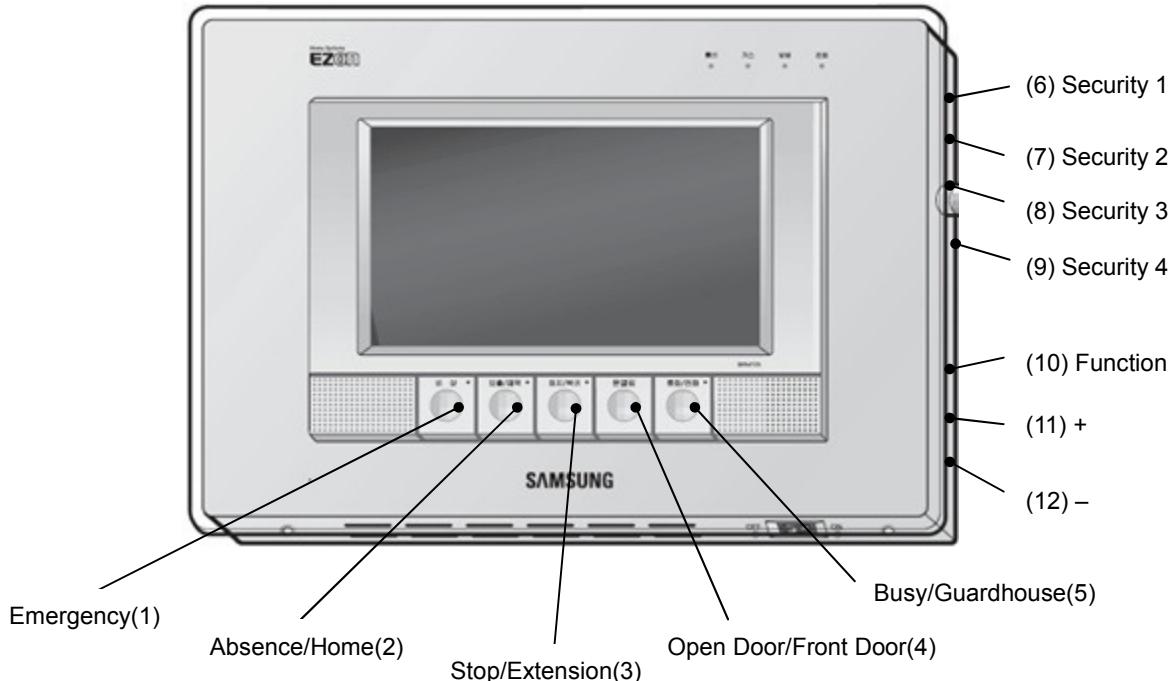
Mount Bracket Screw
4EA



EXT Harness
1EA

[Figure 1.1.1] Components of Product

1.1.2 Name of SHT-7171XM/EN Part



[Figure 1.1.2] Name of SHT-7171XM/EN Part

The following table summarizes the name of each part

Table 1.1 Descriptions of Buttons on SHT-7171XM/EN

Button	Function
(1) Emergency Button	Use this button on emergency. It flashes on an emergency situation.
(2) Absence/Home Button	Use this button to set absence or home. It turns on.
(3) Stop/Extension Button	Use this button to cancel urgent situation such as emergency and fire or to make an extension line call.
(4) Open Door/Front Door Button	Use this button to open door on the front door phone or lobby phone.
(5) Busy/Guardhouse Button	Use this button to receive a call from front door/lobby phone/guardhouse or send a call to guardhouse
(6) Security 1 Button	Use this button to set security of zone 1.
(7) Security 2 Button	Use this button to set security of zone 2.
(8) Security 3 Button	Use this button to set security of zone 3.
(9) Security 4 Button	Use this button to set security of zone 4.
(10) Function Button	Use this button to set various functions such as ringtone and Household ID.
(11) + Button	Use this button to adjust ringtone and volume(turn up). Use this button to call elevator (up).
(12) - Button	Use this button to adjust ringtone and volume(turn down) Use this button to call elevator (down).

1.2 Specifications and Dimensions

The followings are the specifications and dimensions of Home Automation SHT-7171XM/EN

Table 1.2 SHT-7171XM/EN Specifications

Device Name	Item	Specifications and Features	
SHT-7171XM/EN	Call Type	Speaker Phone Call Type	
	LCD Monitor Size	7" Color TFT-LCD	
	LCD Resolution (Dot)	1440 (H, RGB) x 234 (V)	
	LCD Screen View Angle	7-Inch: Horizontal Angle:±60°, Vertical Angle> +40°/50°	
	LCD Back Light Durability	40,000 Hours +25°	
	LCD Back-Light	LED type	
	Image Signal Scanning Type	SHT-7171XM/EN	NTSC Type (3.579545Mhz)
			PAL
	Image Line Connection	2-Line Type	
	Camera Transmission Distance	Diameter: 0.65mm or greater Distance: 20mm or less	
	Door-Phone Ringing Phone	Melody Sound	
	Data Signal Type of Guardhouse	RS485 Type (BUS)	
	Mainframe based Power Consumption	SHT-7171XM	0.81A
	Dimension	Width: 300mm x Length: 170mm x Height: 37mm	
	Weight (Based on Mainframe)	SHT-7171	1,074g

1.3 Function Specification

The followings are the functions of Home Automation SHT-7171XM/EN

Function	Test Procedure	Specification
1. Initialization – Main Frame		
1.1 LED Test	- Provide power when power is off.	- All LEDs should be on/off.
2. MMC		
2.1 User MMC 1		
2.1.		
2.1.1 Entering password when the security alarm stops	- Press the [Function] button twice. - Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Security 4(4)] button.	- It is announced whether the saved password is entered or not. - 0 (not entered), 1 (entered)
	- Press the [Open Door(0)].	- Password not entered should be selected.
	- Press the [Security 1(1)].	- Password entered should be selected.
2.1.2 Registering password (when password entered is selected)	- Press the [Function] button. - Press the [Stop/Extension] button.	- [Telecommunication LED] turns on and the saved password is announced. - Default Value: 123456
	- Press 6-digit password. - Press the [Function] button	- The entered password should be saved. - The numbers "from 0 to 8" are available as password.
2.2 Installer MMC1		
2.2.1 Setting household No	- Press the [Function] button twice.	- [Telecommunication LED] turns on.
	- Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Security 3(3)] button.	- The saved household No is announced.
	- Press the 2-digit household No.	- The entered household No is saved, [Telecommunication LED] turns off and MMC mode ends. - Household No: 1~60 (Default Value: 61)
2.2.2 Setting Initialization	- Press the [Function] button twice.	- [Telecommunication LED] turns on.
	- Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Security 1(1)] button.	- Default value is set and [Telecommunication LED] turns off. - Default Value: (1) Stop Warning Password not Entered (2) Password: 123456 (3) Household No: 61 (4) Call Volume, Melody Volume: 2 nd Step (applied to all calls and melody tones) (5) Screen Brightness: 3 rd Step

Function	Test Procedure	Specification
2.2 Installer MMC 1		
2.2.3 Checking S/W version	<ul style="list-style-type: none"> - Press the [Function] button twice. - Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Security 1(2)] button. 	<ul style="list-style-type: none"> - [Telecommunication LED] turns on - The S/W version is announced.
2.2.4 Restarting system	<ul style="list-style-type: none"> - Press the [Function] button twice. - Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Open Door(0)] button. 	<ul style="list-style-type: none"> - The system should restart in 2 seconds.
3. Front-Door Call		
3.1 Call from Front-Door	<ul style="list-style-type: none"> - Approve signal of call from front-door. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes and it rings. - A visitor is displayed in the monitor - When you press Volume([+]/[-]) during the call, the ringtone changes. - The visitor is displayed on the sub-phone and it rings. - When you press [Call] on the sub-phone, a call is connected with front-door.
3.2 Front-Door Monitoring	<ul style="list-style-type: none"> - Press the [Open Door/Front Door] button on the main frame. 	<ul style="list-style-type: none"> - A visitor is displayed in the monitor. - At this moment, the call is not connected. - The front monitoring does not last more than 15 seconds.
3.3 Opening front door	<ul style="list-style-type: none"> - Press the [Open Door/Front Door] button on the main frame or the [Open Door] button on the sub-phone. 	<ul style="list-style-type: none"> - The front door opens
3.4 Adjusting volume	<ul style="list-style-type: none"> - Press the Volume([+]/[-]) button during the call with front door. 	<ul style="list-style-type: none"> - The call volume changes (can adjust up to 4 grades).
3.5 Adjusting screen brightness	<ul style="list-style-type: none"> - Press the [Function] button and the Volume([+]/[-]) button during the call with front door. 	<ul style="list-style-type: none"> - The screen brightness changes (can adjust up to 4 grades).
3.6 Call Time	<ul style="list-style-type: none"> - A call lasts until the call is terminated automatically. 	<ul style="list-style-type: none"> - The call does not last more than 1 minute.
4. Extension Call		
4.1 Sending call to extension from main frame.	<ul style="list-style-type: none"> - Press the [Stop/Extension] button on the main frame. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes and the extension call melody rings. - Ring back tone is made on all the connected sub-phones (up to 2 sub-phones). - Pressing [Call] on the sub-phone connects the call.
4.2 Making an extension call from sub-phone	<ul style="list-style-type: none"> - Press the [Call Main Frame] button on the sub-phone. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes and the extension call melody rings. - When you press Volume([+]/[-]) during the call, the volume changes. - If the main frame does not answer the call for 30 seconds, the extension call ends automatically. - When you press [Call/Guardhouse], the ring back tone stops ringing, [Call/Guardhouse LED] turns on and the call is connected.
4.3 Adjusting call volume	<ul style="list-style-type: none"> - Press the Volume([-]/[+]) button during an extension call. 	<ul style="list-style-type: none"> - The volume changes (can adjust up to 4 grades).

Function	Test Procedure	Specification
5. Call to Guardhouse		
5.1 Call from Guardhouse	<ul style="list-style-type: none"> - Approve the signal of call from guardhouse. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes.
		<ul style="list-style-type: none"> - Ring back tone rings.
		<ul style="list-style-type: none"> - Ring back tone rings on the sub-phone.
	<ul style="list-style-type: none"> - Stop the ring back tone. 	<ul style="list-style-type: none"> - Ring back tone stops
	<ul style="list-style-type: none"> - Re-approve the signal of incoming call 	<ul style="list-style-type: none"> - When you press [Call/Guardhouse], the ring back tone stops, [Call/Guardhouse LED] turns on and a call is connected with the guardhouse.
		<ul style="list-style-type: none"> - When you press Volume([+]/[-]) during the call, the ringing tone volume changes.
		<ul style="list-style-type: none"> - When you press [Call] on the sub-phone, a call is connected with the guardhouse
	<ul style="list-style-type: none"> - Press the [Call/Guardhouse] button on the main frame. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] turns on and guardhouse call melody rings.
		<ul style="list-style-type: none"> - A call is sent to the guardhouse.
	<ul style="list-style-type: none"> - Press the [Guardhouse] button on the sub-phone. 	<ul style="list-style-type: none"> - When a guard picks up the phone, the call is connected immediately.
		<ul style="list-style-type: none"> - [Call/Guardhouse LED] turns on and guardhouse call melody rings.
		<ul style="list-style-type: none"> - A call is sent to the guardhouse.
5.3 Adjusting volume	<ul style="list-style-type: none"> - Press the Volume([+]/[-]) button when a call is connected to the guardhouse. 	<ul style="list-style-type: none"> - The volume changes (can adjust up to 4 grades).
5.4 Call between households	<ul style="list-style-type: none"> - A guard press the [Forward] button when a call is connected to the guardhouse. 	<ul style="list-style-type: none"> - Forward waiting melody rings.
	<ul style="list-style-type: none"> - A guard cancels the forward 	<ul style="list-style-type: none"> - It should be possible to recover the call with the guardhouse.
	<ul style="list-style-type: none"> - A guardhouse forwards the call to another household. 	<ul style="list-style-type: none"> - Waiting melody stops and a call is connected.
5.5 Self-Diagnosis	<ul style="list-style-type: none"> - Set the guardhouse telephone to self-diagnosis 	<ul style="list-style-type: none"> - Ring back tone rings on the telephone in the guardhouse.
	<ul style="list-style-type: none"> - The guardhouse call a household. 	
	<ul style="list-style-type: none"> - Press [1] ~ [3] in the guardhouse. 	<ul style="list-style-type: none"> The 1~3 channels change and ring back tone rings at the guardhouse telephone.
6. Common Front Door Call		
6.1 Call from common front door	<ul style="list-style-type: none"> - Approve the signal of call from the common front door. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes
		<ul style="list-style-type: none"> - Ring back tone rings.
		<ul style="list-style-type: none"> - A visitor at the common front door is displayed on the monitor.
		<ul style="list-style-type: none"> - The sub-phone shows the image of common front door and ring back tone rings.
	<ul style="list-style-type: none"> - Stop ring back tone. 	<ul style="list-style-type: none"> - Call incoming stops.
6.2 Opening door	<ul style="list-style-type: none"> - Make a call to common front door. - Press the [Function/Open Door] button during the call. 	<ul style="list-style-type: none"> - When you press [Call/Guardhouse], the ring back tone stops. - [Call/Guardhouse LED] turns on and a call is connected to the common front door
6.3 Adjusting volume	<ul style="list-style-type: none"> - Press the Volume([+]/[-]) button during a call with common front door. 	<ul style="list-style-type: none"> - The volume changes (can adjust up to 4 grades).
6.4 Adjusting screen brightness	<ul style="list-style-type: none"> - Press the [Function] button and the Volume([+]/[-]) button during a call with common front door. 	<ul style="list-style-type: none"> - The screen brightness changes (can adjust up to 4 grades).

Function	Test Procedure	Specification
7. Alarm		
7.1 Fire		
7.1.1 On Hold	- Make fire on hold	- [Fire LED] flashes in red immediately and fire alarm rings.
	- Re-detect in 10 seconds	<ul style="list-style-type: none"> - If the re-detection makes sure that the alarm results from an error in the system, the alarm stops ringing immediately. - The re-detection is performed once in 10 seconds. - If the re-detection shows an error in system during the call, the call on the line is disconnected. - If the re-detection shows no error in system, fire data is sent to the guardhouse.
7.1.2 When a call is incoming from front door	<ul style="list-style-type: none"> - Receive a call from the front door. - Make a fire. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to front door while operating the alarm. - The alarm stops and the call to front door is released.
7.1.3 When calling front door	<ul style="list-style-type: none"> - Connect a call with front door. - Make a fire. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - The alarm stops and the call to front door is released.
7.1.4 When a call is incoming from guardhouse	<ul style="list-style-type: none"> - Receive a call from the guardhouse. - Make a fire. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to guardhouse while operating the alarm. - Alarm stops and the call to guardhouse is released.
7.1.5 When calling guardhouse	<ul style="list-style-type: none"> - Connect a call with guardhouse. - Make a fire. Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - The alarm stops and the call to guardhouse is released.
7.1.6 On the extension line	<ul style="list-style-type: none"> - Make an extension call - Make a fire. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - The alarm stops and the extension call is released.
7.2 Gas Leakage		
7.2.1 On Hold	<ul style="list-style-type: none"> - Leak gas on hold. - Re-detect in 10 seconds 	<ul style="list-style-type: none"> - [Gas LED] flashes in yellow immediately and gas leakage alarm rings. - If the re-detection makes sure that the alarm results from an error in the system, the alarm stops ringing immediately. - The re-detection is performed once in 10 seconds. - If the re-detection shows an error in system during the call, the call on the line is disconnected. - If the re-detection shows no error in system, fire data is sent to the guardhouse.
7.2.2 When a call is incoming from front door	<ul style="list-style-type: none"> - Receive a call from the front door. - Leak gas. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to front door while operating the alarm. - The alarm stops and the call to front door is released.
7.2.3 When calling front door	<ul style="list-style-type: none"> - Connect a call with front door. - Leak gas. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - The alarm stops and the call to front door is released.
7.2.4 When a call is incoming from guardhouse	<ul style="list-style-type: none"> - Receive a call from the guardhouse. - Leak gas. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to guardhouse while operating the alarm. - Alarm stops and the call to guardhouse is released.
7.2.5 When calling guardhouse	<ul style="list-style-type: none"> - Connect a call with guardhouse. - Leak gas. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - The alarm stops and the call to guardhouse is released.

Function	Test Procedure	Specification
7.2.6 On the extension line	<ul style="list-style-type: none"> - Make an extension call. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. - Leak gas - The alarm stops and the call to guardhouse is released.
7.3 Break-In		
7.3.1 On Hold	<ul style="list-style-type: none"> - Press the [Absence] button once. - Break in the house on hold. - Create IR or bug on hold 	<ul style="list-style-type: none"> - [Absence LED] turns on in red and the security mode is set. - All of [Security 1]/[Security 2]/[Security 3]/[Security 4] zones are set to the security mode. - All LEDS of [Security 1]/[Security 2]/[Security 3]/[Security 4] turn on. - Alarm rings immediately. - LED of the zone to break in flashes. - Break-in is not detected 1 minute after setting absence. - Break-in data is sent to the guardhouse 30 seconds after the house is broken into. - Alarm rings immediately. - [Absence LED] flashes. - IR or Bug is detected only when absence is set. - Break-in is not detected 1 minute after setting absence. - Break-in data is sent to the guardhouse 30 seconds after the house is broken into.
7.3.2 When a call is incoming from front door	<ul style="list-style-type: none"> - Receive a call from front door. - Break into the house. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button twice. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to front door while operating the alarm. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. - Alarm stops ringing and the call to front door is released. (When not using password is set)
7.3.3 When calling front door	<ul style="list-style-type: none"> - Connect a call with front door. - Break into the house. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button twice. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. - Alarm stops ringing and the call to front door is released. (When not using password is set)
7.3.4 When a call is incoming from guardhouse	<ul style="list-style-type: none"> - Receive a call from the guardhouse. - Break into the house. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button twice. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to guardhouse while operating the alarm. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. - Alarm stops ringing and the call to guardhouse is released. (When not using password is set)

Function	Test Procedure	Specification
7.3.5 When calling guardhouse	<ul style="list-style-type: none"> - Connect a call with guardhouse. - Break into the house. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the call to guardhouse is released.
7.3.6 On the extension line	<ul style="list-style-type: none"> - Make an extension call. - Break into the house. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the extension call is released.
7.4 Emergency		
7.4.1 On Hold	<ul style="list-style-type: none"> - Create emergency on hold. - Create external emergency. - Press the [Emergency] button. 	<ul style="list-style-type: none"> - [Emergency LED] flashes immediately, emergency alarm rings and emergency data is sent to the guardhouse at the same time.
7.4.2 When a call is incoming from front door	<ul style="list-style-type: none"> - Receive a call from front door. - Create emergency. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to front door while operating the alarm. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the call to front door is released.
7.4.3 When calling front door	<ul style="list-style-type: none"> - Connect a call with front door. - Create emergency. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the call to front door is released.
7.4.4 When a call is incoming from guardhouse	<ul style="list-style-type: none"> - Receive a call from the guardhouse. - Create emergency. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Hold the call to guardhouse while operating the alarm. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the call to front door is released.

Function	Test Procedure	Specification
7.4.5 When calling guardhouse	<ul style="list-style-type: none"> - Connect a call with guardhouse. - Create emergency. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. (When not using password is set) <ul style="list-style-type: none"> - Alarm stops ringing and the call to guardhouse is released.
7.4.6 On the extension line	<ul style="list-style-type: none"> - Make an extension call. - Create emergency. - Press the [Stop/Extension] button. - Press the 6-digit password. - Press the [Stop/Extension] button. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm rings at the main frame. (When using password is set) <ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops. - If the password is wrong, the alarm continues to ring. - Alarm stops ringing and the extension call is released. <p>(When not using password is set)</p>
8. Automatic Notification		
8.1 Sending initial alarm	<ul style="list-style-type: none"> - Create a situation. - Re-detect alarm. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm is sent for the first 30 seconds. - After initial alarm is sent, re-detection is performed only for fire and gas. If alarm rings because of an error, the alarm stops ringing. - Alarm stops ringing, the situation is recovered.
8.2 Notification to Guardhouse_1	<ul style="list-style-type: none"> - Notify the guardhouse. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm is sent to the guardhouse for 30 seconds after calling guardhouse. - All existing calls are initialized
8.3 Sending Alarm_2	<ul style="list-style-type: none"> - Notify the guardhouse. - Press the [Stop/Extension] button twice. 	<ul style="list-style-type: none"> - Alarm is sent for 30 seconds after notifying guardhouse. - All existing calls are initialized
9. Stop/Recovery of Alarm		
9.1 Stop/Recovery of Fire/Gas/Emergency/Break-In Alarm (When the password is not set)	<ul style="list-style-type: none"> - Press the [Stop/Extension] button while the situation continues. - Press the [Stop/Extension] button. 	<ul style="list-style-type: none"> - The alarm stops ringing while the LED continues to turn on. - For break-in, only the break-in alarm stops ringing. - The system is recovered automatically after 5 minutes. - Other functions should operate normally.
9.2 Stop/Recovery of Fire/Gas/Emergency/Break-In Alarm (When the password is set)	<ul style="list-style-type: none"> - Press the [Stop/Extension] button while the situation continues. - Press 6-digit password. - Press the [Stop/Extension] button. 	<ul style="list-style-type: none"> - When the entered password is identical to the pre-set password, the alarm stops ringing. - If the password is wrong, the alarm continues to ring. - All LEDs turn off. - All LEDs except break-in LED turn off while the break-in LED continues to turn on.

Function	Test Procedure	Specification
10. Absence/Security Function		
10.1 Setting Absence Mode	- Press the [Absence/Security] button. (For abnormal security)	- Error tone rings and the security mode would not be set. - LED for abnormal security zone flashes for 2 seconds. (e.g. If the security of zone 2 is abnormal, the [Security 2] LED flashes for 2 seconds.) - For IR(J2) or BUG(J1), the [Absence] LED flashes for 2 seconds.
	- Set absence at absence setter. (For abnormal security)	- The absence setting would not succeed. - LED for abnormal security zone flashes for 2 seconds.
	- Press the [Absence/Security] button. (For normal security)	- [Absence/Security LED] turns on and the absence mode is set. - LEDs of [Security 1]/[Security 2]/[Security 3]/[Security 4] turn on and the security mode is set for all zones. - [Set Absence] LED of the absence setter turns on and the absence mode is set.
	- Set absence at absence setter. (For normal security)	- [Set Absence] LED of the absence setter turns on and the absence mode is set.
10.2 Detour Call	- Make a call with front door phone when absence is set.	- Ring back tone rings and the guardhouse is called.
		- When you receive a call with the main frame, disconnect the call from the guardhouse.
		- If the guardhouse does not receive a call, the front door incoming service lasts for 20 seconds.
10.3 Setting whole security mode	- Press the [Absence/Security] button in the absence mode, (For abnormal security)	- Error tone rings and the security mode would not be set. - LED for abnormal security zone flashes for 2 seconds. (e.g. If the security of zone 2 is abnormal, the [Security 2] LED flashes for 2 seconds.)
	- Press the [Absence/Security] button in the absence mode, (For normal security)	- [Absence/Security LED] turns off and the whole absence mode is set. - LEDs of [Security 1]/[Security 2]/[Security 3]/[Security 4] turn on and the security mode is set for all zones.
		- [Set Absence] LED on the absence setter turns off and the absence mode is released.
10.4 Canceling absence /whole security mode	- Press the [Absence] button. ※ When you cancel the absence mode at the absence setter, the mode is cancelled regardless of the use of password. ※ The whole security mode is cancelled only when Security 1 is set.	(When not using password is set) - [Absence LED] turns off and the absence mode is cancelled. - LEDs of [Security 1]/[Security 2]/[Security 3]/[Security 4] turn off and the security mode is cancelled for all zones.
		(When using password is set) - An announcement is made to ask to enter password. - When you enter the 6-digit password, the absence /whole security mode is cancelled and the LED turns off. - If the password is wrong, the error tone rings. ※ You have to enter the password for 10 seconds.

Function	Test Procedure	Specification
10. Absence/Security Function		
10.5 Setting individual security mode	<ul style="list-style-type: none"> - Press the [Security 1] button. (for disconnection/short-circuit of security 1) - Press the [Security 2] button. (for disconnection/short-circuit of security 2) - Press the [Security 3] button. (for disconnection/short-circuit of security 3) - Press the [Security 4] button. (for disconnection/short-circuit of security 4) 	- Error tone rings and the security mode would not be set.
	<ul style="list-style-type: none"> - Press the [Security 1] button. (for normal security 1) - Press the [Security 2] button. (for normal security 2) - Press the [Security 3] button. (for normal security 3) - Press the [Security 4] button. (for normal security 4) 	<ul style="list-style-type: none"> - [Security 1 LED] turns on and the security mode is set. - [Security 2 LED] turns on and the security mode is set. - [Security 3 LED] turns on and the security mode is set. - [Security 4 LED] turns on and the security mode is set.
10.6 Canceling individual security mode	<ul style="list-style-type: none"> - Press the [Security 1] button. - Press the [Security 2] button. - Press the [Security 3] button. - Press the [Security 4] button. 	<p>(When not using password is set)</p> <ul style="list-style-type: none"> - [Security 1 LED] turns off and the security mode is cancelled. - [Security 2 LED] turns off and the security mode is cancelled. - [Security 3 LED] turns off and the security mode is cancelled. - [Security 4 LED] turns off and the security mode is cancelled.
		<p>(When using password is set)</p> <ul style="list-style-type: none"> - An announcement is made to ask to enter password. - When you enter the 6-digit password, the LED turns off and the absence/whole security mode is cancelled. - If the password is wrong, the error tone rings and the security mode would not be cancelled. <p>* You have to enter the password for 10 seconds.</p>
11. Call Elevator		
11.1 Calling elevator	- Press the [+] button on hold.	- Elevator is called to lift up.
	- Press the [-] button on hold.	- Elevator is called to go down

Function	Test Procedure	Specification
12. Composite Call		
12.1 Front Door + Guardhouse Call		
12.1.1 Receiving call from guardhouse after receiving call from front door	- Receive a call from the front door.	- [Call/Guardhouse LED] flashes and ring back tone rings. - The visitor at the front door is displayed on the monitor.
	- Receive a call from the guardhouse	- Ring back tone rings and [Call/Guardhouse LED] flashes.
12.1.2 Receiving call from front door after receiving call from guardhouse	- Receive a call from the guardhouse	- [Call/Guardhouse LED] flashes and ring back tone rings.
	- Receive a call from the front door.	- Ring back tone rings and [Call/Guardhouse LED] flashes. - The visitor at the front door is displayed on the monitor.
12.1.3 Receiving a call from guardhouse while being busy with front door call	- Connect a call to front door.	- A call is connected with the front door
	- Receive a call from guardhouse.	- [Call/Guardhouse LED] flashes.
	- Press the [Call/Guardhouse LED] button.	- The call is disconnected from the front door and another call is connected with the guardhouse.
12.1.4 Receiving a call from front door while being busy with guardhouse	- Connect a call to guardhouse.	- A call is connected with the guardhouse.
	- Receive a call from front door	- [Call/Guardhouse LED] flashes. - The visitor at the front door is displayed on the monitor.
	- Press the [Call/Guardhouse LED] button.	- The call is disconnected from the guardhouse and another call is connected with the front door.
12.2 Front Door + Common Front Door Call		
12.2.1 Receiving call from common front door after receiving call from front door	- Receive a call from front door.	- [Call/Guardhouse LED] flashes and ring back tone rings. - The visitor at the common front door is displayed on the monitor.
	- Receive a call from common front door.	- Ring back tone for common front door rings and [Call/Guardhouse LED] flashes.
12.2.2 Receiving call from front door after receiving call from common front door	- Receive a call from common front door.	- [Call/Guardhouse LED] flashes and ring back tone rings. - The visitor at the common front door is displayed on the monitor.
	- Receive a call from front door.	Ring back tone for front door rings and [Call/Guardhouse LED] flashes.
12.2.3 Receiving a call from common front door while being busy with front door call	- Connect a call to front door.	- A call is connected with the front door
	- Receive a call from common front door.	- [Call/Guardhouse LED] flashes.
	- Press the [Call/Guardhouse LED] button.	- The call is disconnected from the front door and another call is connected with the common front door.
12.2.4 Receiving a call from front door while being busy with common front door	- Connect a call to common front door.	- A call is connected with the common front door
	- Receive a call from front door.	- [Call/Guardhouse LED] flashes.
	- Press the [Call/Guardhouse LED] button.	- The call is disconnected from the common front door and another call is connected with the front door.
12.3 Extension + Front Door Call		
12.3.1 Receiving call from front door after receiving extension call	- Receive an extension call	- [Call/Guardhouse LED] flashes and ring back tone for extension rings.
	- Receive a call from front door	- The extension call is disconnected, the ring back tone for front door rings and [Call/Guardhouse LED] flashes. - The visitor at the front door is displayed on the monitor.
12.3.2 Receiving a call from front door while being busy with extension call	- Make an extension call	- The extension call is connected.
	- Receive a call from front door	- [Call/Guardhouse LED] flashes. - The visitor at the front door is displayed on the monitor.
	Press the [Call/Guardhouse LED] button.	- The extension call is disconnected and another call is connected with the front door.
12.3.3 Receiving extension call while being busy with front door call	- Connect a call to front door.	- A call is connected with the front door
	- Receive an extension call.	- [Call/Guardhouse LED] flashes.
	- Press the [Call/Guardhouse LED] button.	- The call is disconnected from the front door and the extension call is connected.

Function	Test Procedure	Specification
12. Composite Call		
12.4 Extension + Guardhouse Call		
12.4.1 Receiving call from guardhouse after receiving extension call	<ul style="list-style-type: none"> - Receiving an extension call - Receiving a call from guardhouse. 	<ul style="list-style-type: none"> - [Call/Guardhouse LED] flashes and ring back tone for extension rings. - The extension call is disconnected, the ring back tone for guardhouse rings and [Call/Guardhouse LED] flashes.
12.4.3 Receiving a call from guardhouse while being busy with extension call	<ul style="list-style-type: none"> - Make an extension call. - Receive a call from guardhouse. <p>Press the [Call/Guardhouse LED] button.</p>	<ul style="list-style-type: none"> - The extension call is connected. - [Call/Guardhouse LED] flashes. - The extension call is disconnected and another call is connected with the guardhouse.
12.4.4 Receiving extension call while being busy with guardhouse call	<ul style="list-style-type: none"> - Connect a call to guardhouse. - Receive an extension call. <p>- Press the [Call/Guardhouse LED] button.</p>	<ul style="list-style-type: none"> - A call is connected with the guardhouse. - [Call/Guardhouse LED] flashes. - The call is disconnected from the guardhouse and the extension call is connected.

Chapter 2. Disassembly and Assembly

This chapter provides the exploded view of Home Automation SHT-7171XM/EN(3-Directions).

2.1 Exploded View

The following figure is the exploded view of Home Automation SHT-7171XM/EN.



OMMISSION

[Figure 2.1] Exploded View

2.2 Disassembly

The following describes the procedure of disassembling Home Automation SHT-7171XM/EN(3-Direction).



Caution of Damaged ESD(Electrostatic Sensitive Device)

You should give caution to static electricity when handling a board or a part.

Static electricity may damage the product. Thus, wear a wrist straps before handling a board or a part.

2.2.1 Disassembly of Main Frame

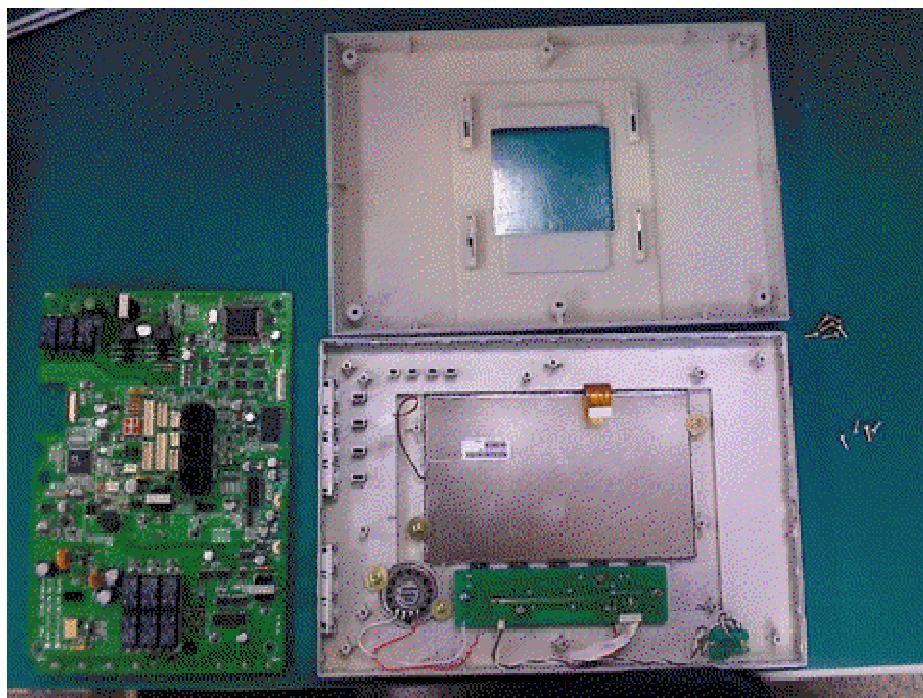
1) After removing the screws, open the upper part and disassemble the product by using tools(card or tool for cellular-phone disassembly). There are RIBs at right and left sides. Disassemble the product from the side that does not have the side key.(The picture shows the product disassembly with a card.)



2) The following picture shows the disassembly of equipment base.



3) Remove the flat cable and harness that is connected with LCD and detach the harness for key board, microphone and speaker.



4) The following picture shows all the disassembled parts of the main frame.



2.3 Assembly

You can assembly Home Automation in the reverse procedure of disassembly.

Caution in Assembly



After repairing the product, you should install all connectors and screws.

Once the assembly is completed, there should be no chink between the upper and lower cases.

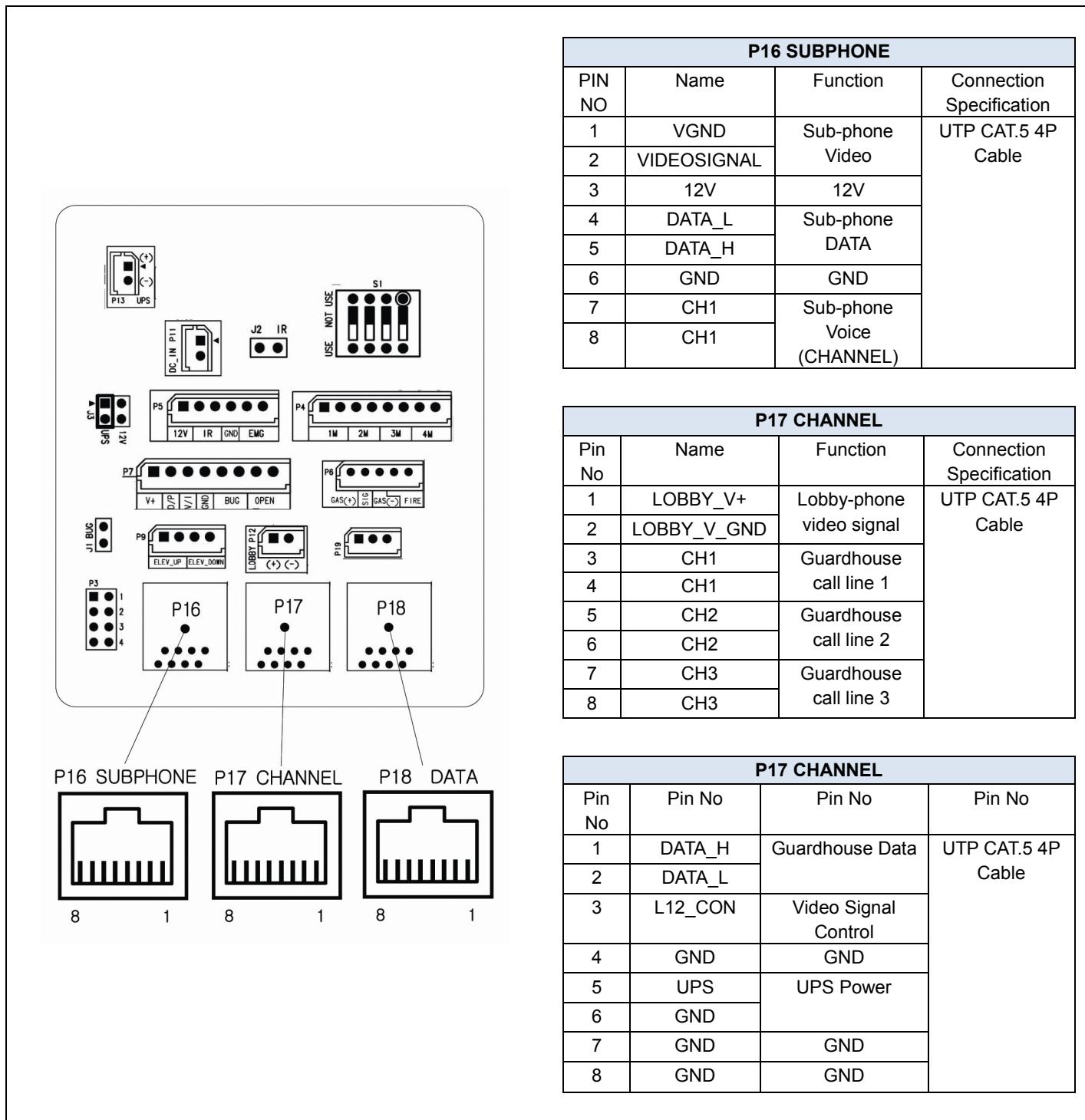
Chapter 3. Product Installation and Configuration Diagram

This chapter explains the installation of Home Automation SHT-7171XM/EN (3-Direction) and its configuration diagram.

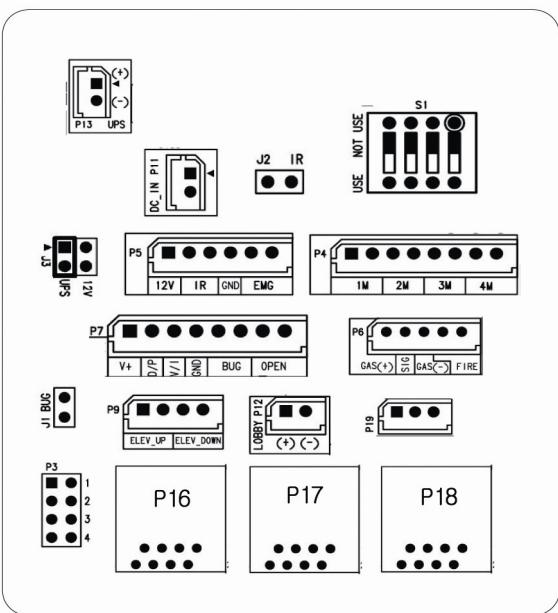
3.1 How to Install Product in Premise

The following shows how to install Home Automation SHT-7171XM/EN.

3.1.1 Modular Jack(RJ-45) Configuration (Rear Side)



3.1.2 Configuration of Various Supplementary Devices



S1 Sensor Usage Switch		
Pin No	Name	Description
1	1M	When using the sensor → DIP Switch Off
2	2M	When not using the sensor → DIP Switch On
3	3M	
4	4M	

J2 IR Sensor Usage Shunt Pin	
When not used	When used
Insert JUMPR	Remove JUMPER

J1 BUGGLAR Sensor Usage Shunt Pin	
When not used	When used
Insert JUMPR	Remove JUMPER

P13	Used when separate UPS power is provided.
P11	Used when separate 12V power is provided
P12	Used when separate lobby video is provided

P5 IR Sensor and Emergency		
Pin No	Name	Description
1	12V	IR Sensor
2	1R	
3	1R	
4	GND	Extended Sensor
5	EMG	
6	EMG	

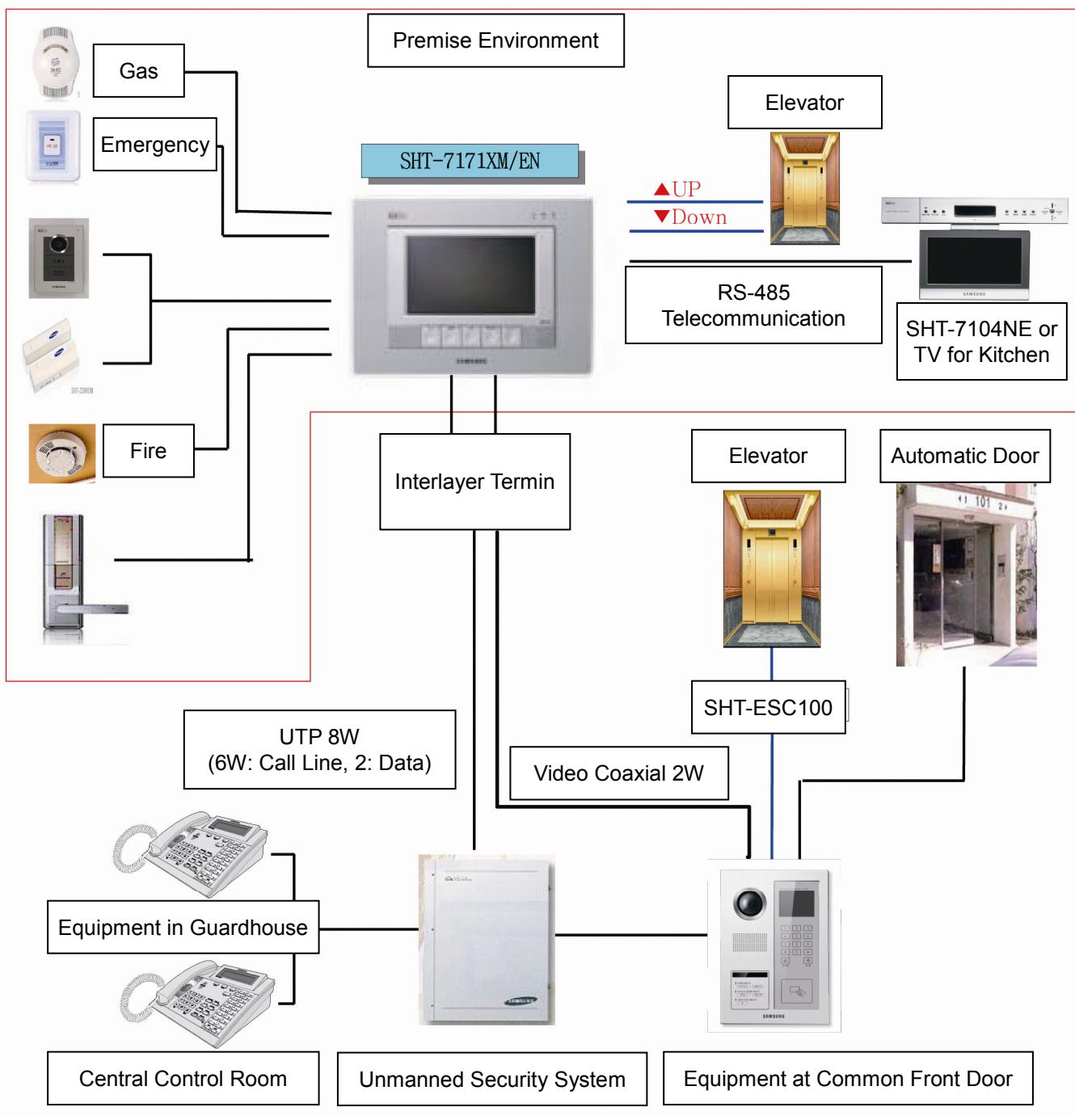
P4 Extended Sensor		
Pin No	Name	Description
1	1M	Sensor 1
2	1M	
3	2M	Sensor 2
4	2M	
5	3M	Sensor 3
6	3M	
7	4M	Sensor 4
8	4M	

P7 Door-Phone, Sensor, Door Opening		
Pin No	Name	Description
1	V+	Door Phone
2	D/P	
3	V/I	
4	GND	Magnetic Sensor
5	BUG	
6	BUG	
7	OPEN	Door Opening(Wire)
8	OPEN	

P6 Gas and Fire Sensor		
Pin No	Name	Description
1	GAS+	Gas Sensor
2	SIG	
3	GAS-	Fire Sensor
4	FIRE	
5	FIRE	

P9 Interworking with Elevator		
Pin No	Name	Description
1	ELE_UP	Lifting up
2	ELE_UP	
3	ELE_DOWN	Going down
4	ELE_DOWN	

3.2 System Configuration Diagram



[Figure 3.1] Service Configuration Diagram

Chapter 4. Check and Diagnosis

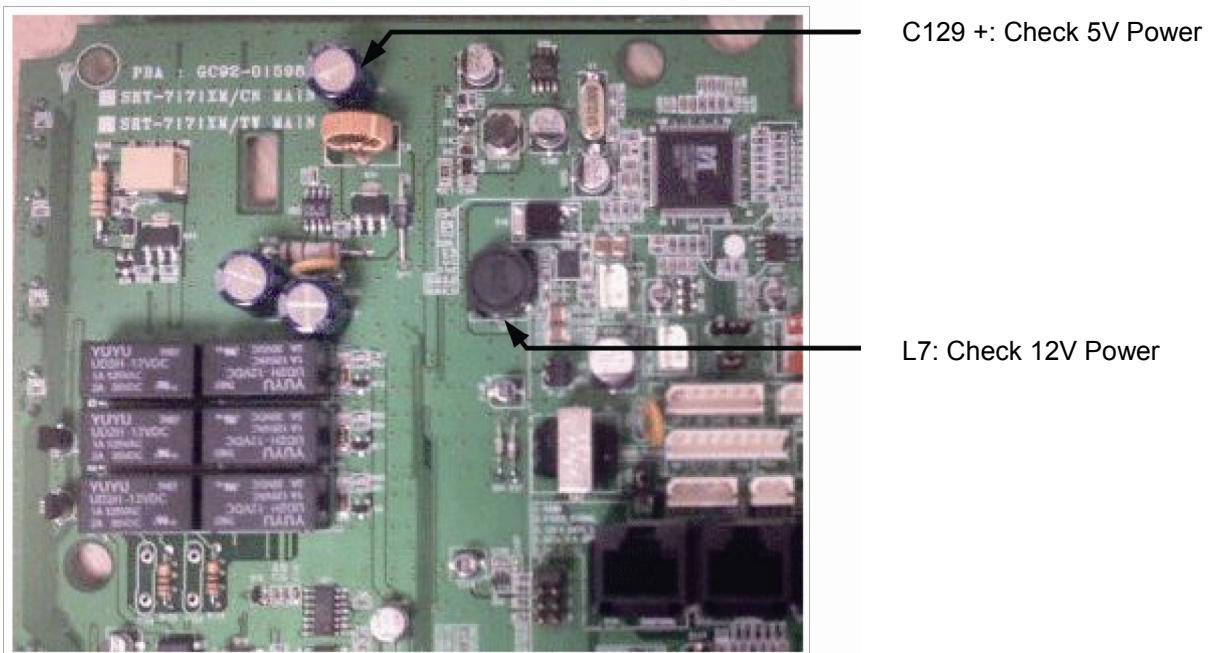
This chapter provides the checklist that you can use to check whether Home Automation SHT-7171XM/EN (3-Direction) works correctly.

4.1 Checklist

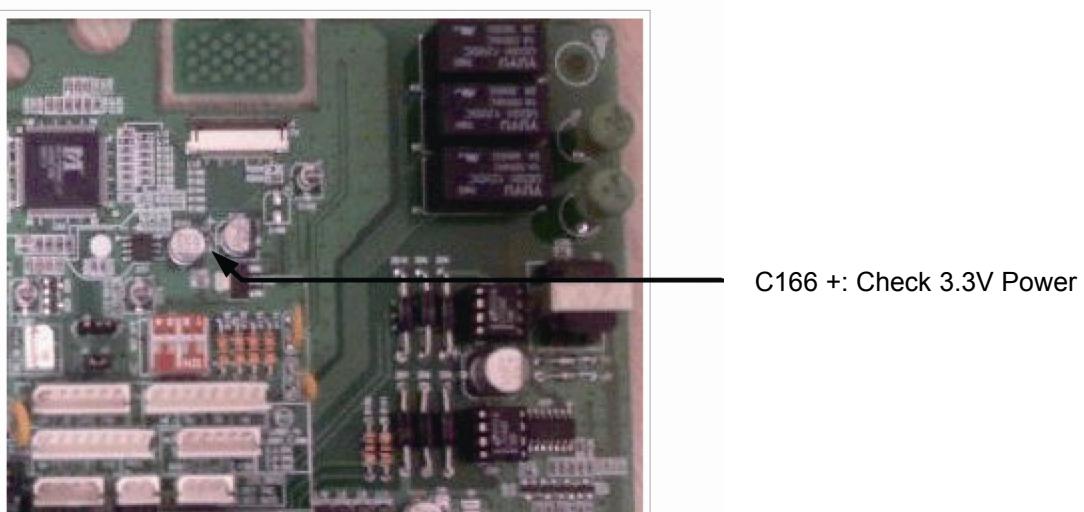
The following is the checklist that you can use to check the operation of Home Automation.

4.1.1 Power Check

- Check 12V Power: Check L7 to verify that the power coming via UPS is converted to 12V through DC/DC Converter.
- Check 5V Power: Check + end of C129 to verify that 12V power is converted to 5V through DC/DC Converter.

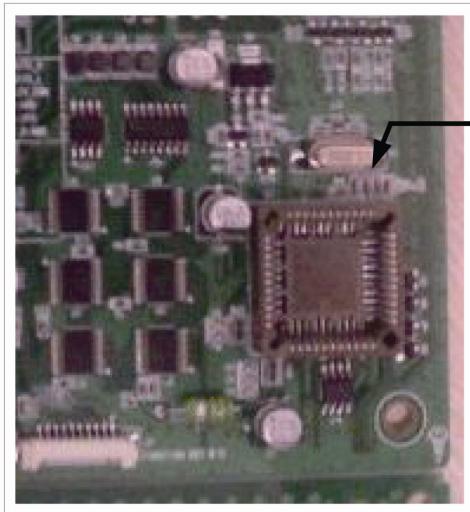


- Check 3.3V Power: Check + end of C166 to verify that 5V power is converted to 3.3V through LDC.



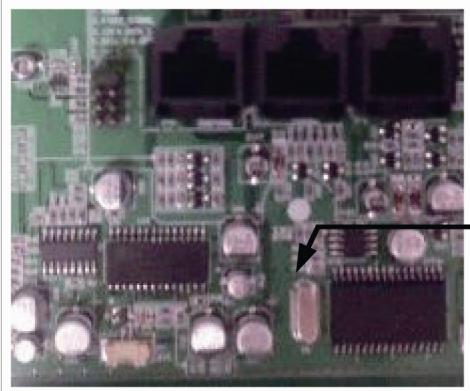
4.1.2 Checking X-TAL Oscillation

- Check 12MHz output at pin No 1 of X1.



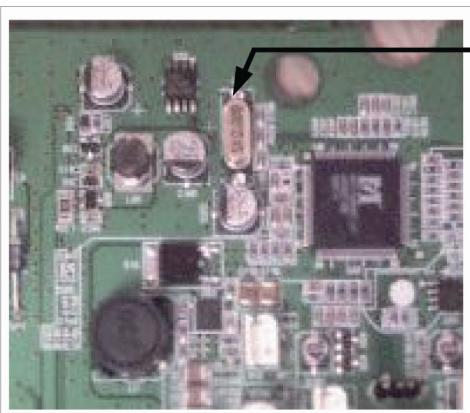
Measure the pin of X1.

- Check 8MHz at pin No 1 of X2.



Measure the pin of X2.

- Check 12MHz at pin No 1 of Y2.



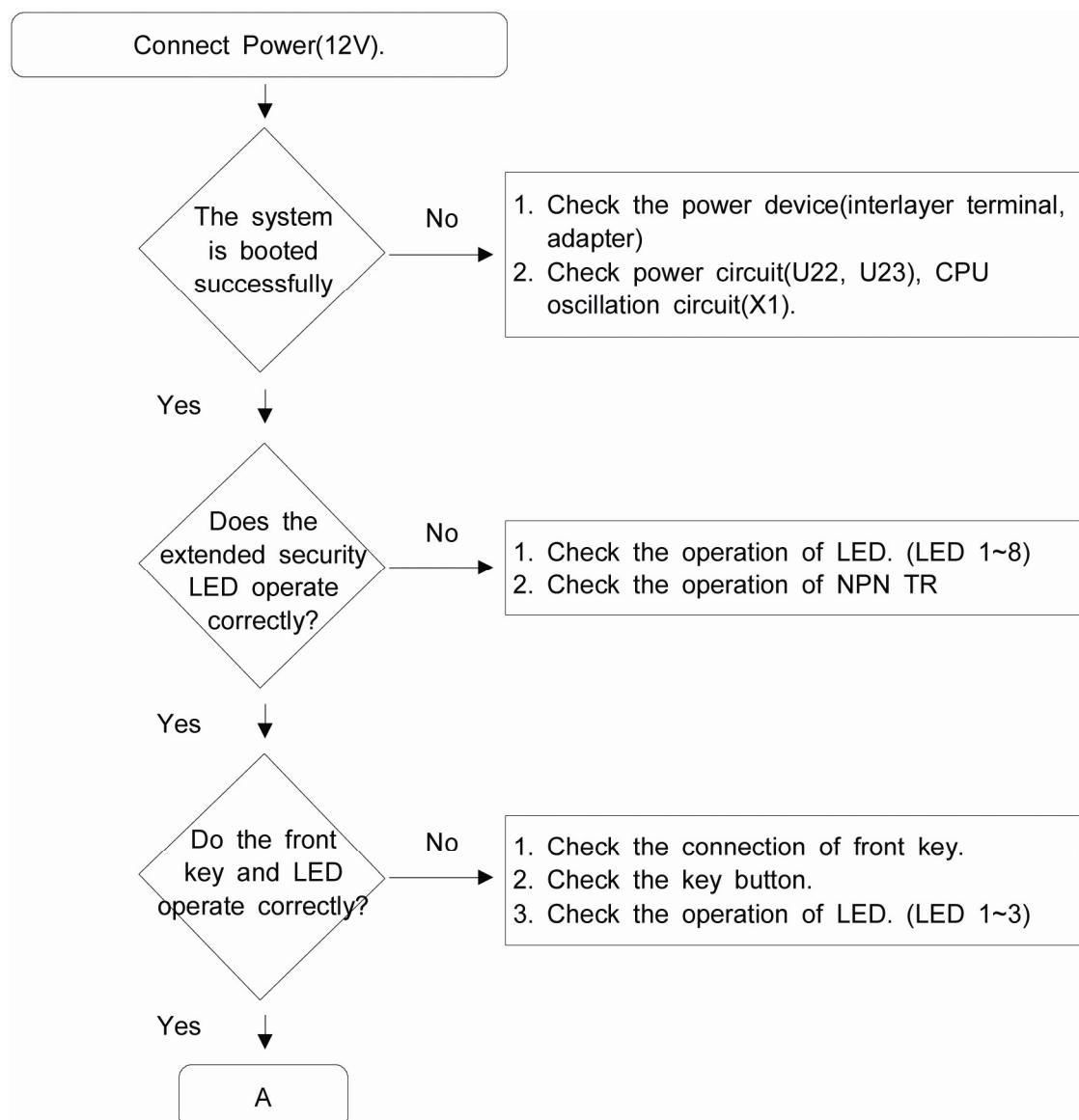
Measure the pin of Y1

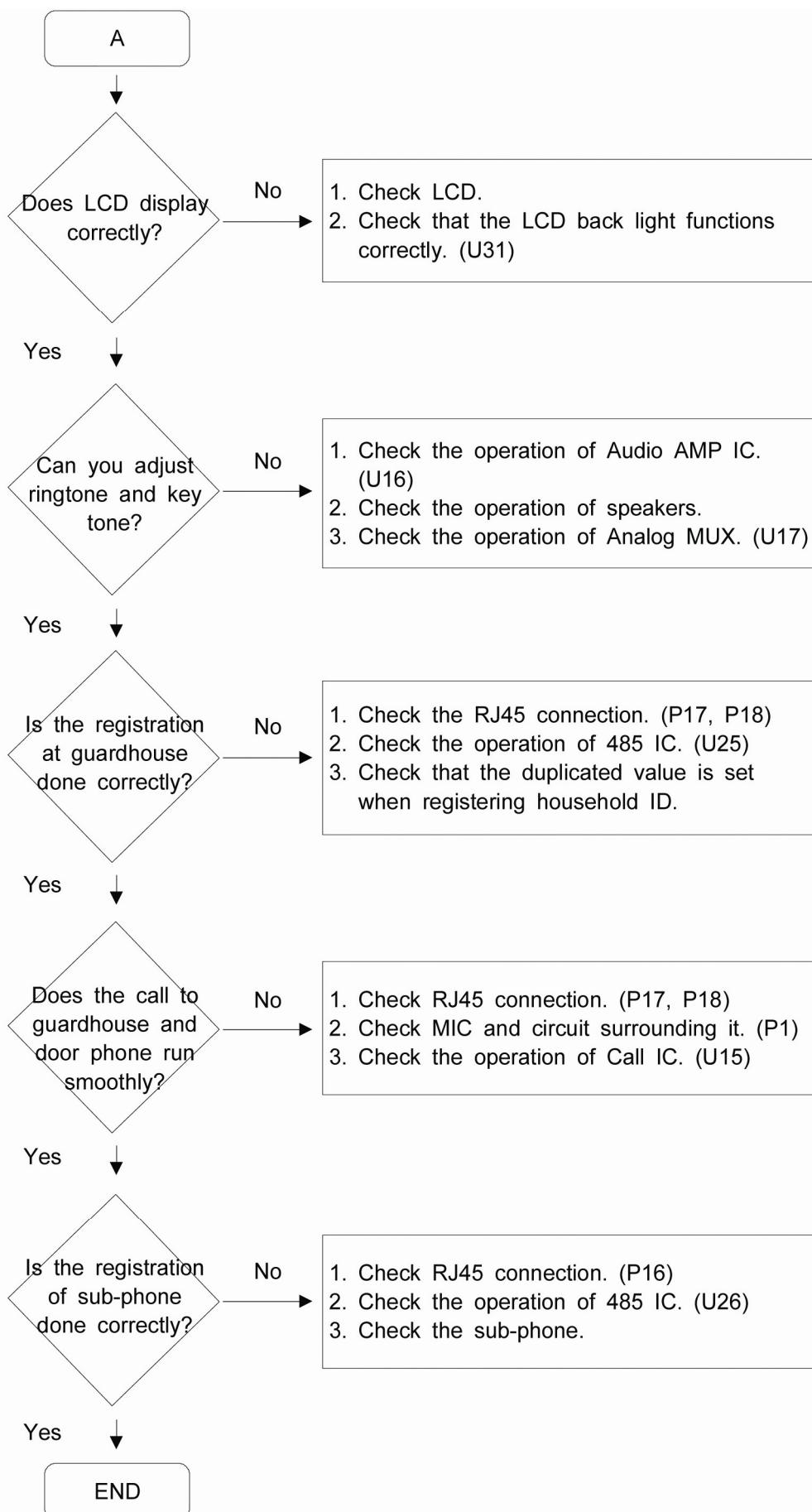
Chapter 5. Troubleshooting

This chapter explains the problems and its solutions that you may encounter when you use Home Automation SHT-7171XM/EN(3-Direction).

5.1 How to Diagnose Failure

The followings describe how to diagnose failure when you want to check the operation of Home Automation.





5.2 Cause of Failure and Measures

The following table explains the causes of failures and measures to solve the failures of Home Automation SHT-7171XM/EN.

Table 5.2.1 Cause of Failure and Measures

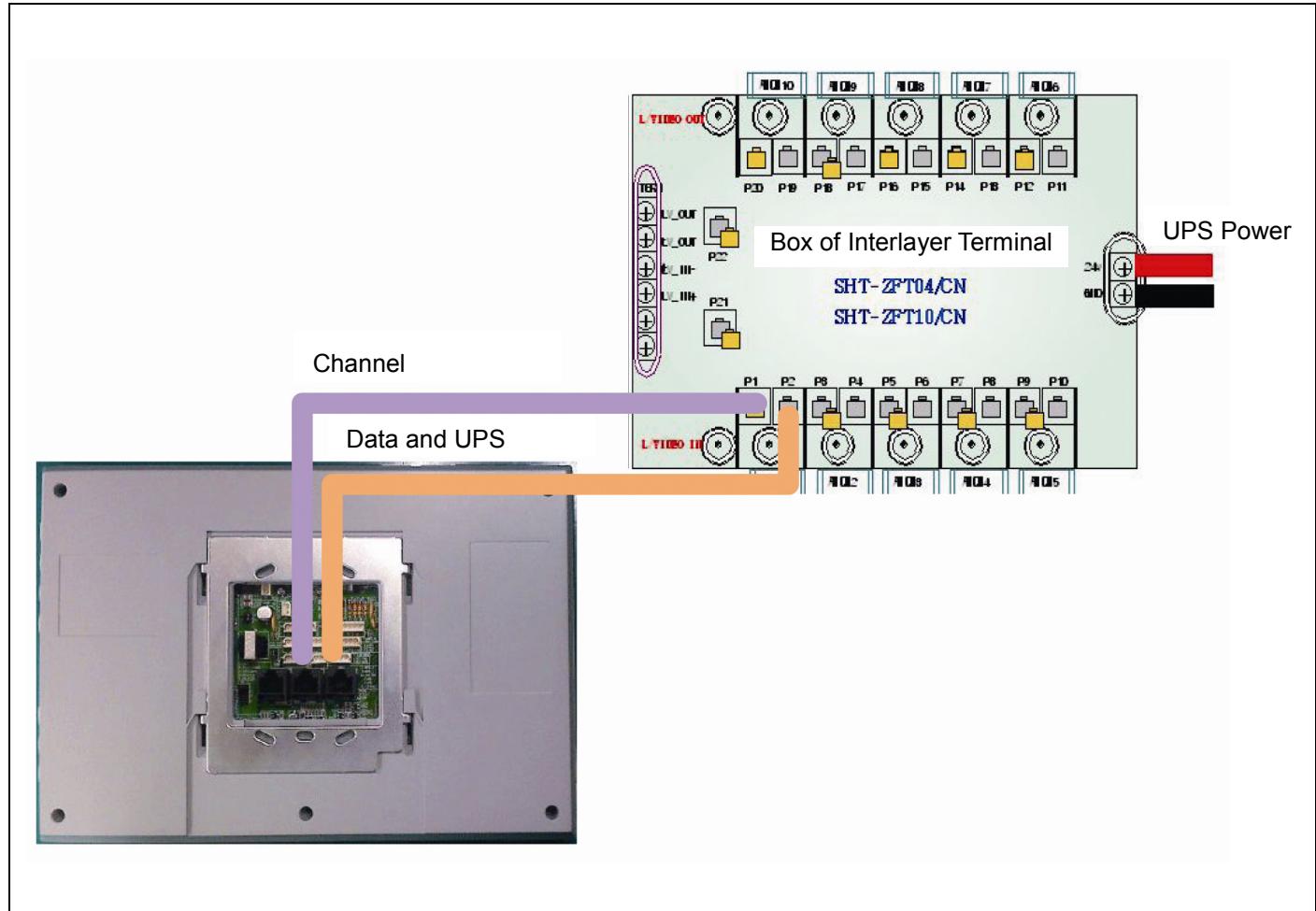
Symptoms	Causes	Measures
The product does not work at all.	1. Power failure (Adaptor or Interlayer Terminal) 2. Defect of RJ45 in UTP	• Check the adaptor. • Check the voltage at each end. • Check RJ45 JACK of UTP.
The product cannot be registered at guardhouse.	1. ID duplication 2. Defect of 485 IC	• Check ID Setting. • Check 485 IC.
The call path is not constructed.	1. Defect of MIC and SPK 2. Defect of RJ45 in UTP	• Check MIC and SPK. • Check RJ45 JACK of UTP.
LCD screen does not work.	1. LCD defect 2. Defect of LCD connector 3. Defect of EEPROM for LCD driver	• check LCD. • Check LCD connector. • Replace U34.
The sub-phone would not be registered.	1. ID duplication 2. Defect of 485 IC	• Check ID Setting. • Check 485 IC.

Chapter 6. Installation and Test

This chapter describes how to install and test Home Automation SHT-7171XM/EN(3-Directiion).

6.1 How to Install Interlayer Terminal

The following figure shows how to install the interlayer terminal of SHT-7171XM/EN.



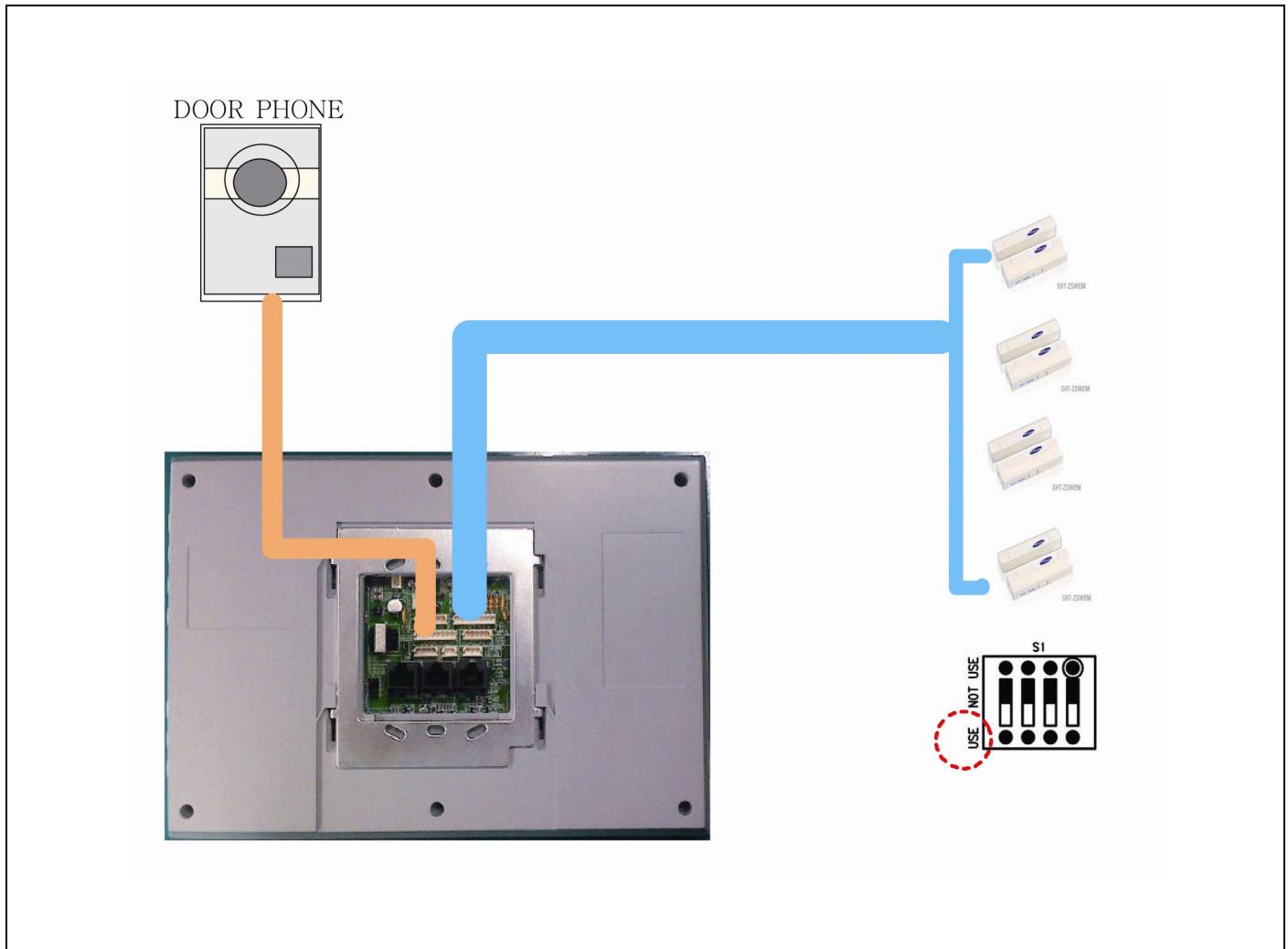
[Figure 6.1] Interlayer Terminal Installation Diagram

Configure the system in the following order:

- Install the interlayer terminal first and connect it to each household via UTP.
 - At this time, pay attention to the locations of UTP for channel and UTP for UPS.
- To connect UPS without the interlayer terminal, connect UPS power to P13.
- To use individual adaptor for the power of each household instead of UPS, replace J3 with 12V and connect 12V adaptor to P11.
- To connect lobby video without the interlayer terminal, use P12.

6.2 Door Phone and Sensor Installation

The following figure shows how to install the door phone and the sensor of SHT-7171XM/EN.



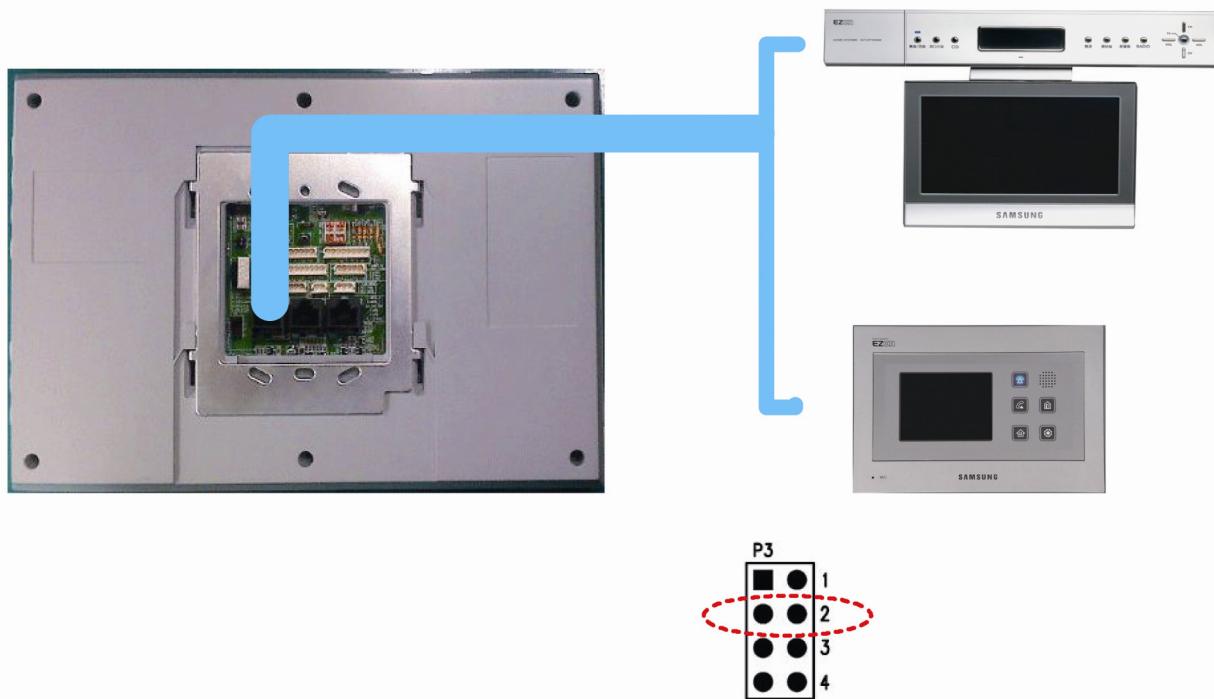
[Figure 6.2] Installation of Door Phone and Sensor

Configure the system in the following order:

- Install the door phone correctly at pin No 1~4.
 - After installing the door phone, provide power to household device.
- When installing the extended sensor(4 port), set DIP Switch of S1.
 - When using the sensor, shift DIP Switch down, (USE)
 - If you want to set absence, shift DIP Switch up for not-used port.
- Install other sensors after checking the sensor port in 3.2.1.

6.3 Sub-Phone Installation

The following figure shows how to install SHT-7171XM/EN sub-phone.



[Figure 6.3] Sub-Phone Installation

Configure the system in the following order:

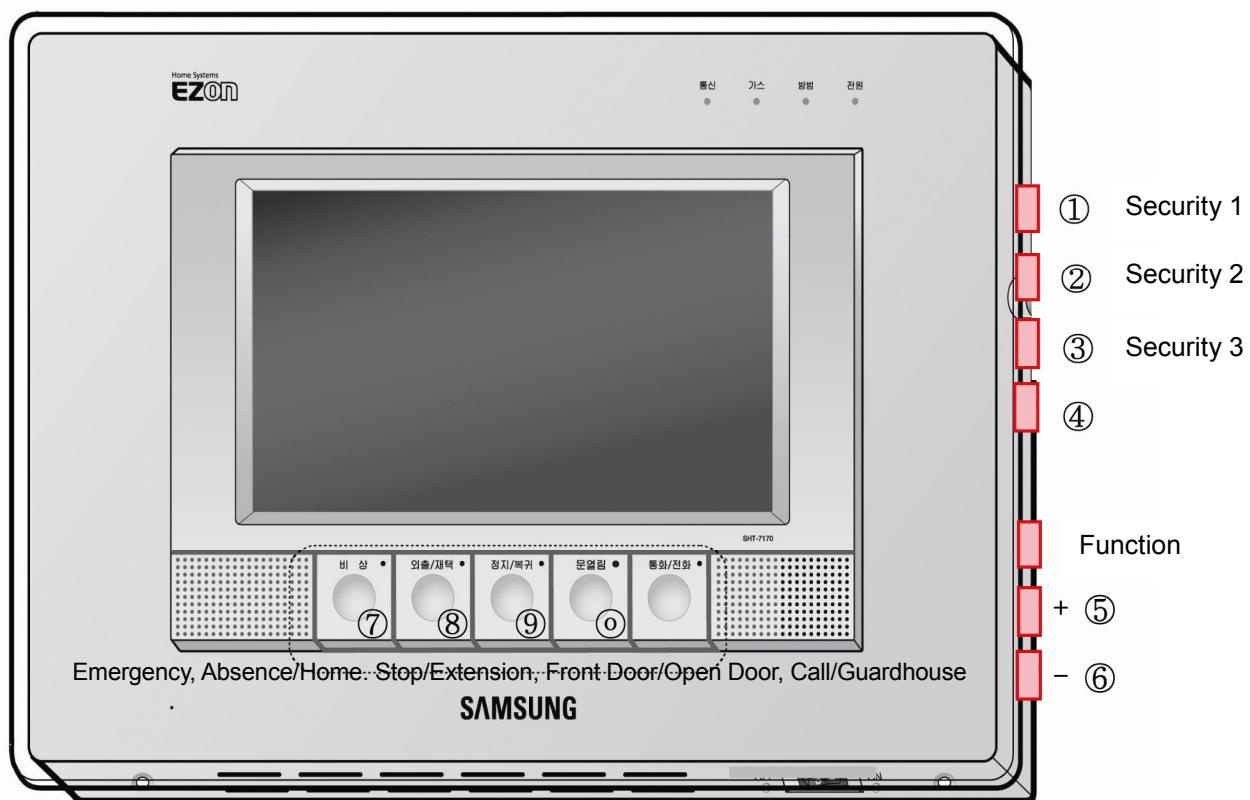
- Use only the approved sub-phone.
- Set the shunt pin for video at P3 according to the number of sub-phones to install.
 - When installing 2 sub-phones, set the shunt pin at 2.
 - Set the shunt pin while checking the video on sub-phone until the image quality is optimized.
- You can interwork the system with up to 3 sub-phones.

Chapter 7. Product Initialization

This chapter explains how to initialize Home Automation SHT-7171XM/EN(3-Direction)

7.1 How to Initialize Product Installation

Setting initialization	- Press the [Function] button twice.	- [Telecommunication LED] turns on
	- Press the [Security 1(1)] button. - Press the [Security 2(2)] button. - Press the [Security 3(3)] button. - Press the [Open Door(0)] button. - Press the [Security 1(1)] button.	- The default value is set. - Default Value: (1) Password for stopping alarm is not entered. (2) Password: 123456 (3) Household No: 61



[Figure 7.1] Button No in Product

7.2 Cautions

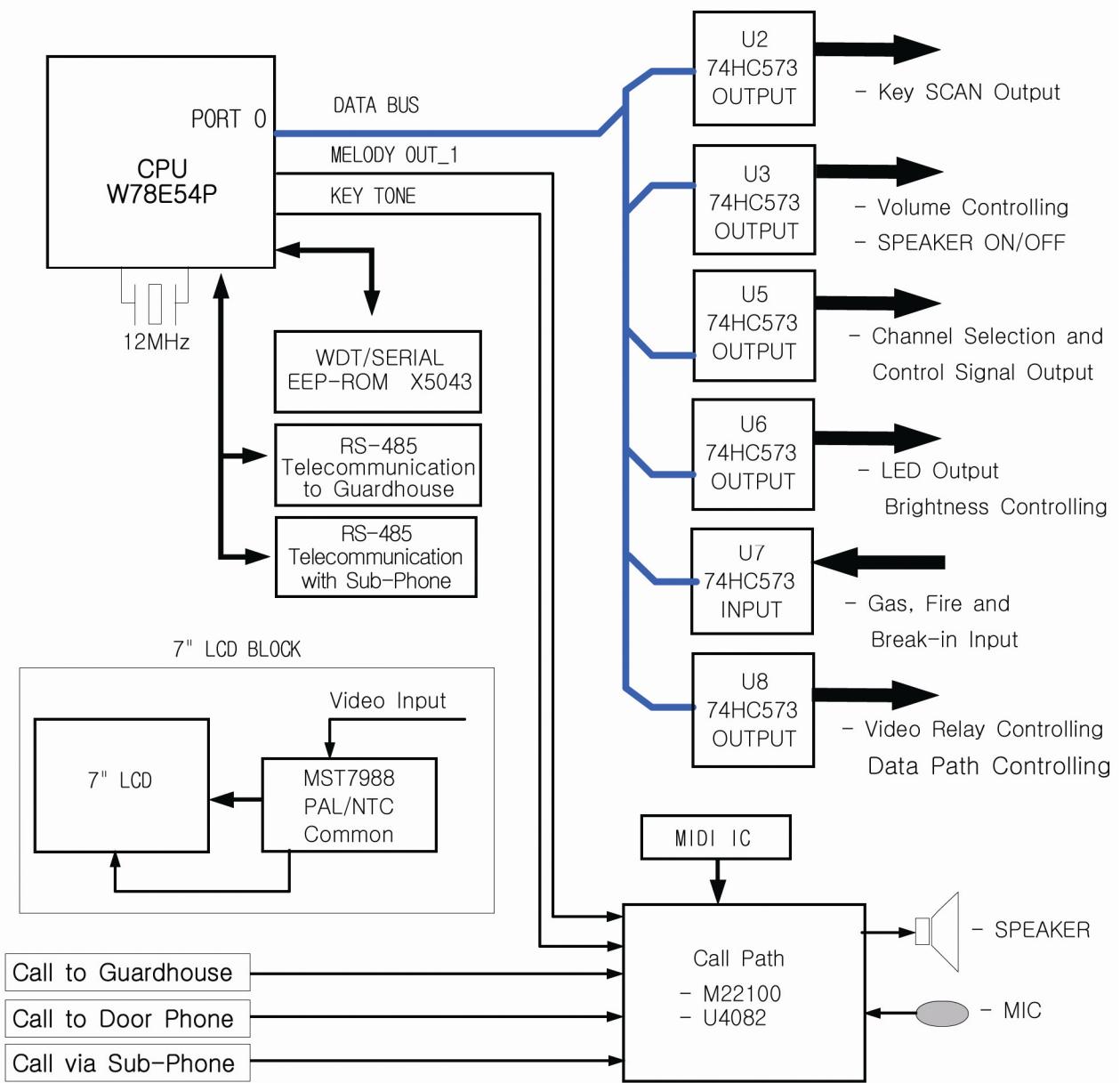
Write down the household No separately when initializing the product.

Chapter 8. Circuit Description

This chapter describes the configuration and features of circuit in each parts of Home Automation SHT-7171XM/EN.

8.1 H/W Block Diagram

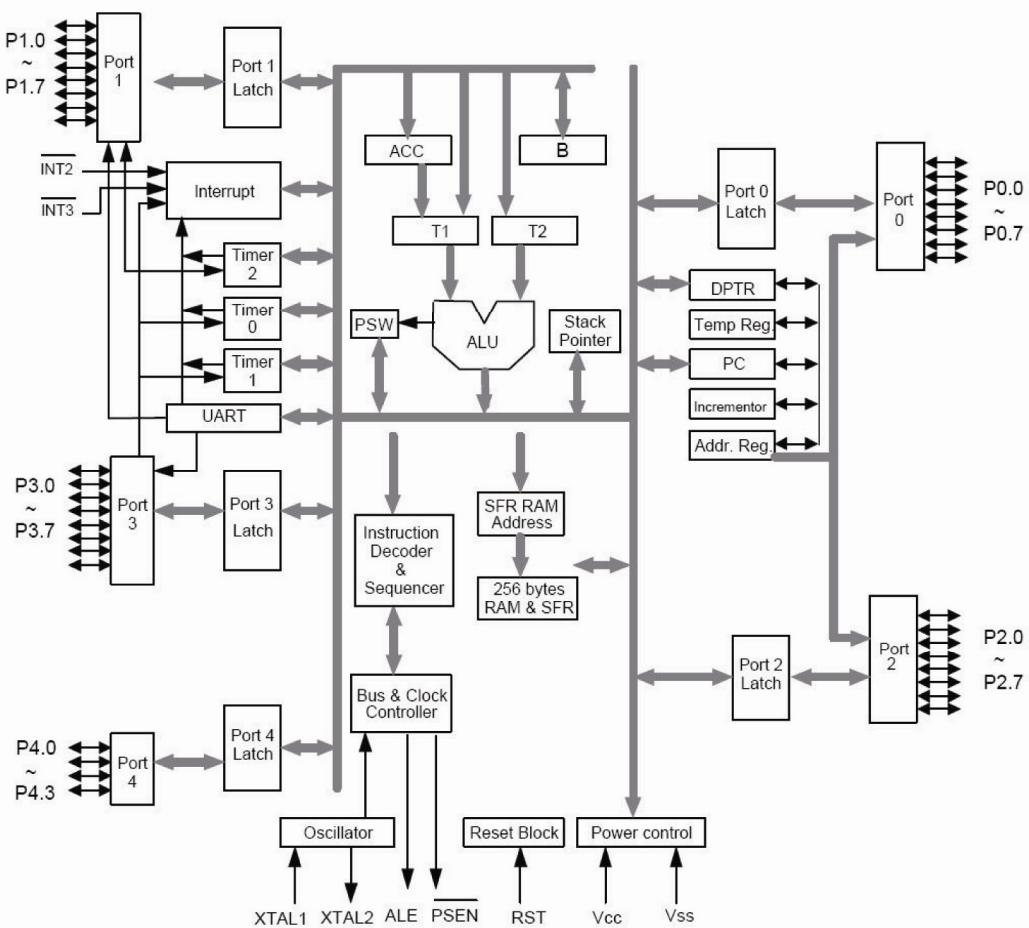
The following figure shows the hardware block diagram of SHT-7171XM/EN



[Figure 8.1] H/W Block Diagram

8.2 CPU Circuit

8.2.1 CPU Block Diagram

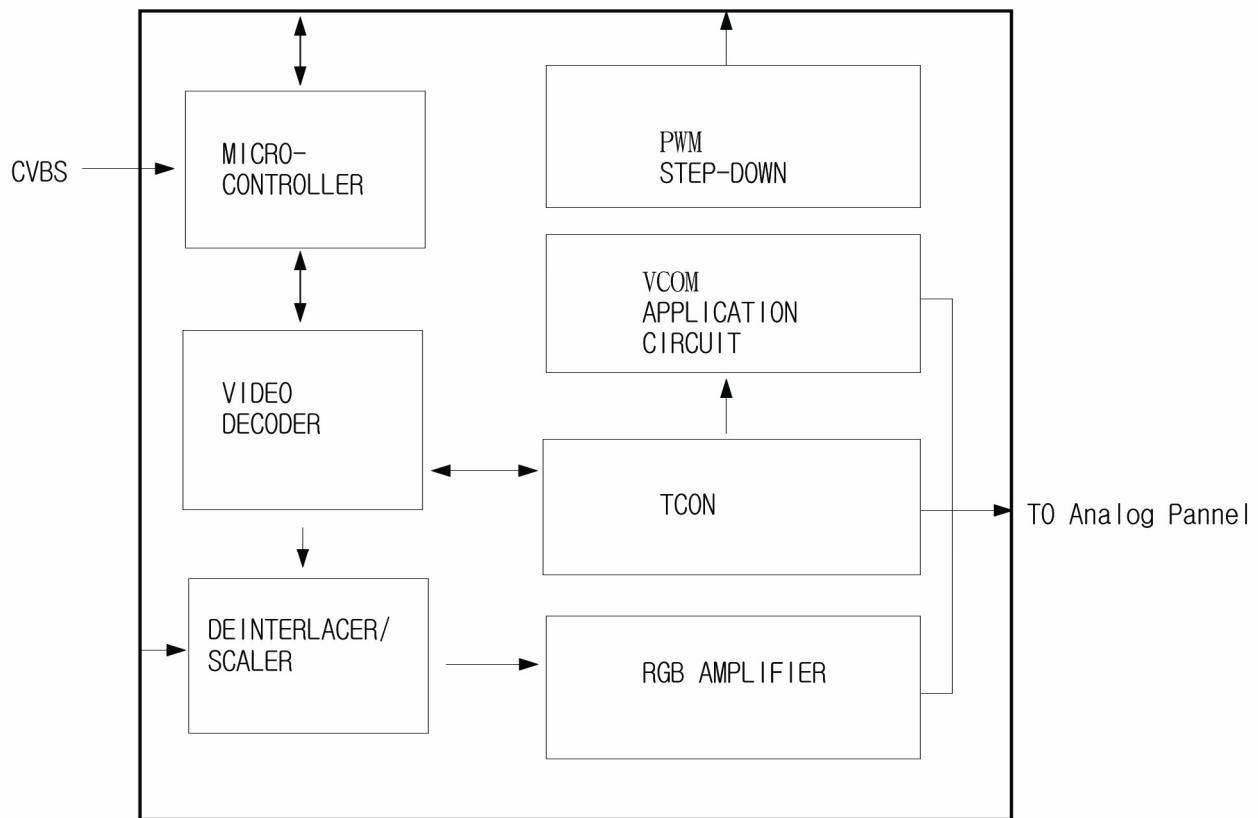


8.2.2 CPU Features

- 8-bit CMOS microcontroller
- Fully static design
- Low standby current at full supply voltage
- DC-40 Mhz operation
- 256 bytes of on-chip scratchpad RAM
- 16 KB electrically erasable/programmable EPROM
- 64 KB program memory address space
- 64 KB data memory address space
- Four 8-bit bidirectional ports
- one extra 4-bit bit-addressable I/O port
- Three 16-bit timer/counters
- One full duplex serial port
- Built-in power management

8.3 LCD Circuit Part

8.3.1 Block Diagram

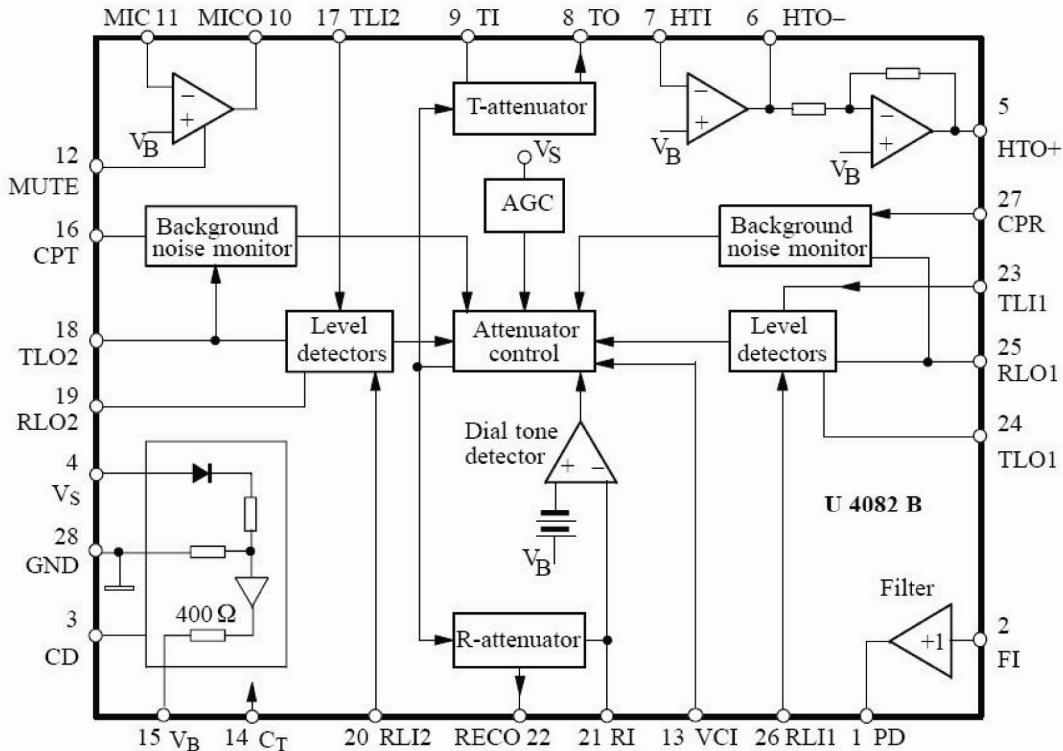


8.3.2 Features

- Supports NTSC,PAL and SECAM video input formats
- 2D NTSC and PAL comb-filter for Y/C separation of CVBS input
- ACC,AGC, and DCGC (Digital Chroma Gain control)
- Supports ITU-R BT.656 input,progressive ITU-R BT.656 compatible input format
- Brightness,contrast,saturation, and hue adjustment
- Supports analog panels with the resolution of 960x234,1200x234, and more
- Supports various displaying modes
- Built-in MCU
- 3-wire serial bus interface for configuration setup
- Built-in VCOM DC level adjusting circuits
- Optional 3.3V/5V output pads with programmable driving current
- Built-in step-down PWM circuits for input 1.8V

8.4 Call Circuit Part

8.4.1 Block Diagram



8.4.2 Features

- Low-voltage operation: 3 to 6.5V
- Attenuator gain range between transmit and receive: 52dB
- Four point signal sensing for improved sensitivity
- Monitoring system for background-noise level
- Microphone amplifier gain adjustable
- Mute function
- Chip disable for active/standby operation
- On-board filter
- Dial tone detector
- Fast channel switching allows quasi duplex operation
- Proper operation in noisy surrounding

Chapter 9. Circuit Diagram

This chapter provides the circuit diagram of Home Automation SHT-7171XM/EN. (However, it is provided only when the repair center requests for the purpose of product repair.)

Table 9.1 Configuration of Circuit Diagram

Circuit for Each Function	Remark
1. Main CPU	
2. Cross Point	
3. Speaker Phone	
4. MIDI, Sub-Phone	
5. Other Module	
6. DC Converter_UPS	
7. 485 Data COM	
8. Exten EM	
9. LED Key	
10. TER Connector	
11. LCD I/O Part	
12. LCD Input Power Part	
13. LCD Output Power Part	
14. LCD Scaler Part	

Chapter 10. List of Parts

This chapter provides the list of service parts for Home Automation SHT-7171XM/EN(3-Direction).

Table 10.1 List of Service Parts

Classification	Seoul COMMTEC Code	Name of Part
PBA	GC07-00043A	LCD-7Inch
	GC92-01118C	Key PBA
	GC92-01598B	Main PBA
	GC96-00977A	MIC ASS'Y
	GC96-00978A	SPEAK ASS'Y
Device	GC72-01257B	Plastic-Front Wondow-7171XM/EN
	GC75-00594B	MEC-Housing ASSY-7171XM/EN
	GC70-00009A	IPR-Wall Mount Bracket
	GC72-00611A	PMO-LCD Vinyl Sheet
	GC72-00944A	Insulating Plate-Front Window
	GC72-01258A	PCT Case-Base 7171XM
	GC72-01267A	Insulating Plate-LCD Insulator
	GC73-00040A	RMO-MIC Holder
Supplement	GC39-00149A	Wire Harness-6PIN
	GC39-00151A	Wire Harness-5PIN
	GC39-00358A	Wire Harness-8PIN
	GC39-00388A	Harness-Power-2PIN
	GC39-00389A	Harness-Video-2PIN
	GC39-00408A	Wire Harness-2PIN
	GC68-01346A	Manual Users-EN

Chapter 11. Part Layout

This chapter provides the part layout diagram of Home Automation SHT-7171XM/EN(3-Direction).

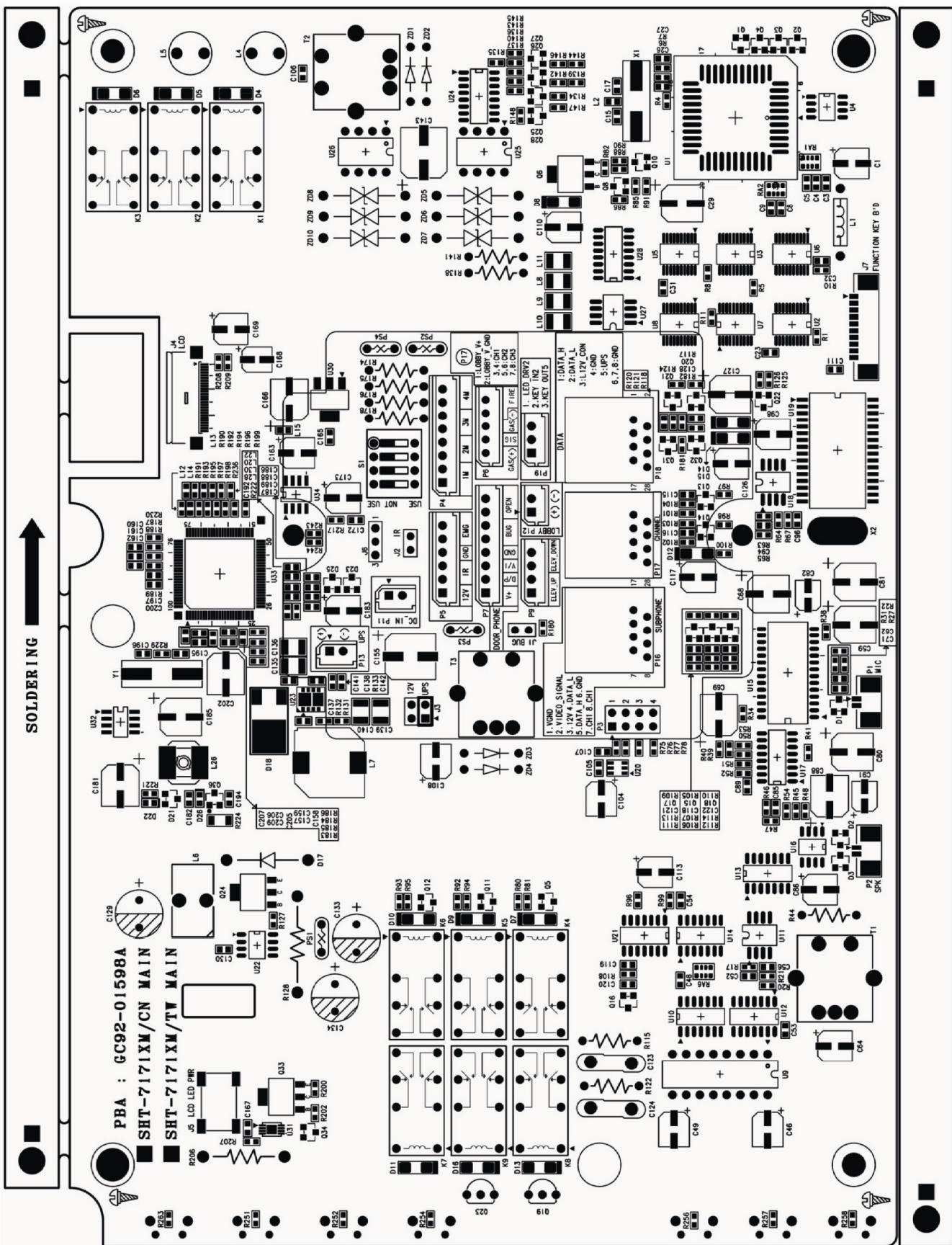
11.1 Size of Parts

The following table shows the size of parts in SHT-7171XM/EN

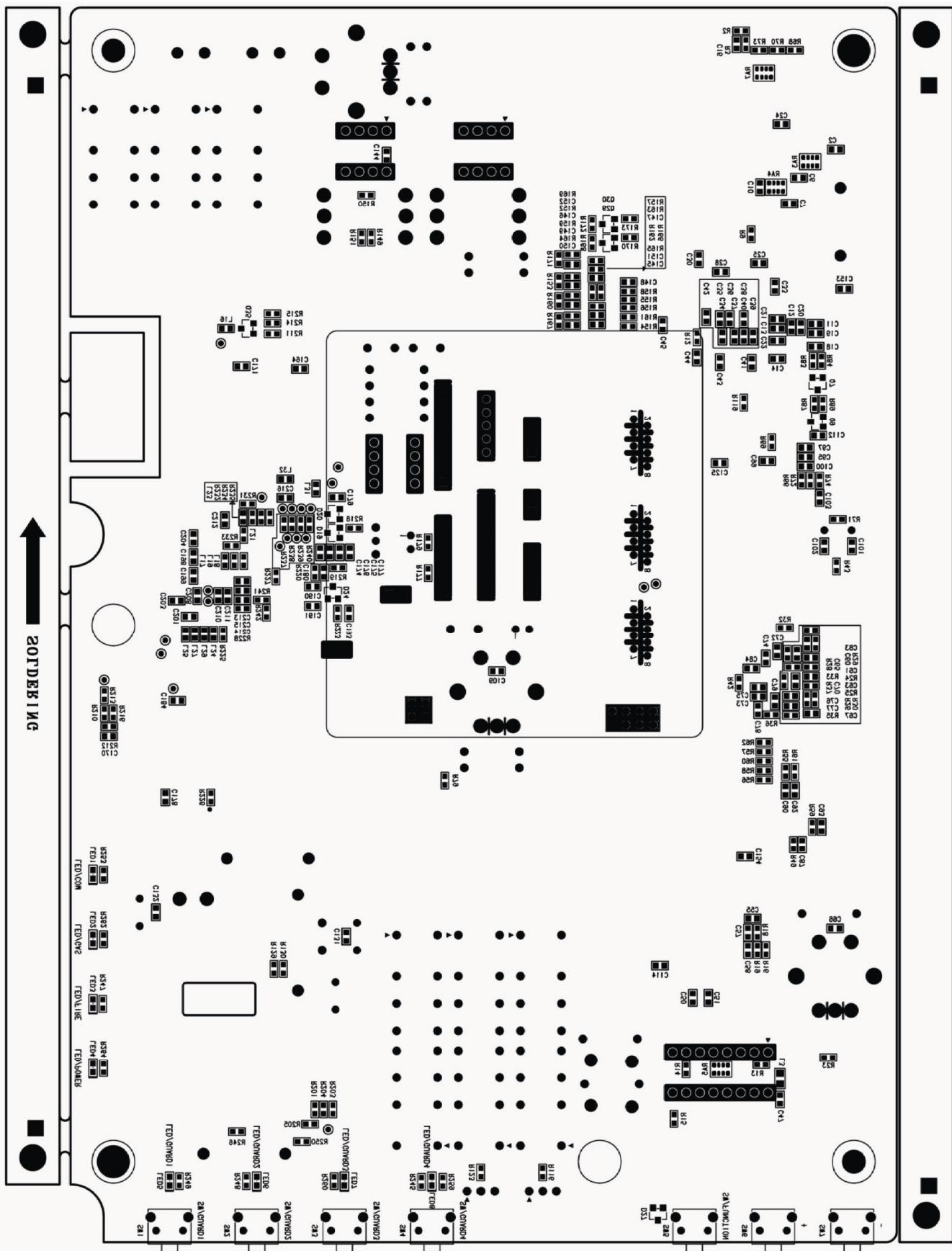
Table 11.1 Size of Parts

Part	Size(Width x Length) mm	Thickness
Main Board	230 x 155	1.6T
Key Board	125 x 30	1.6T

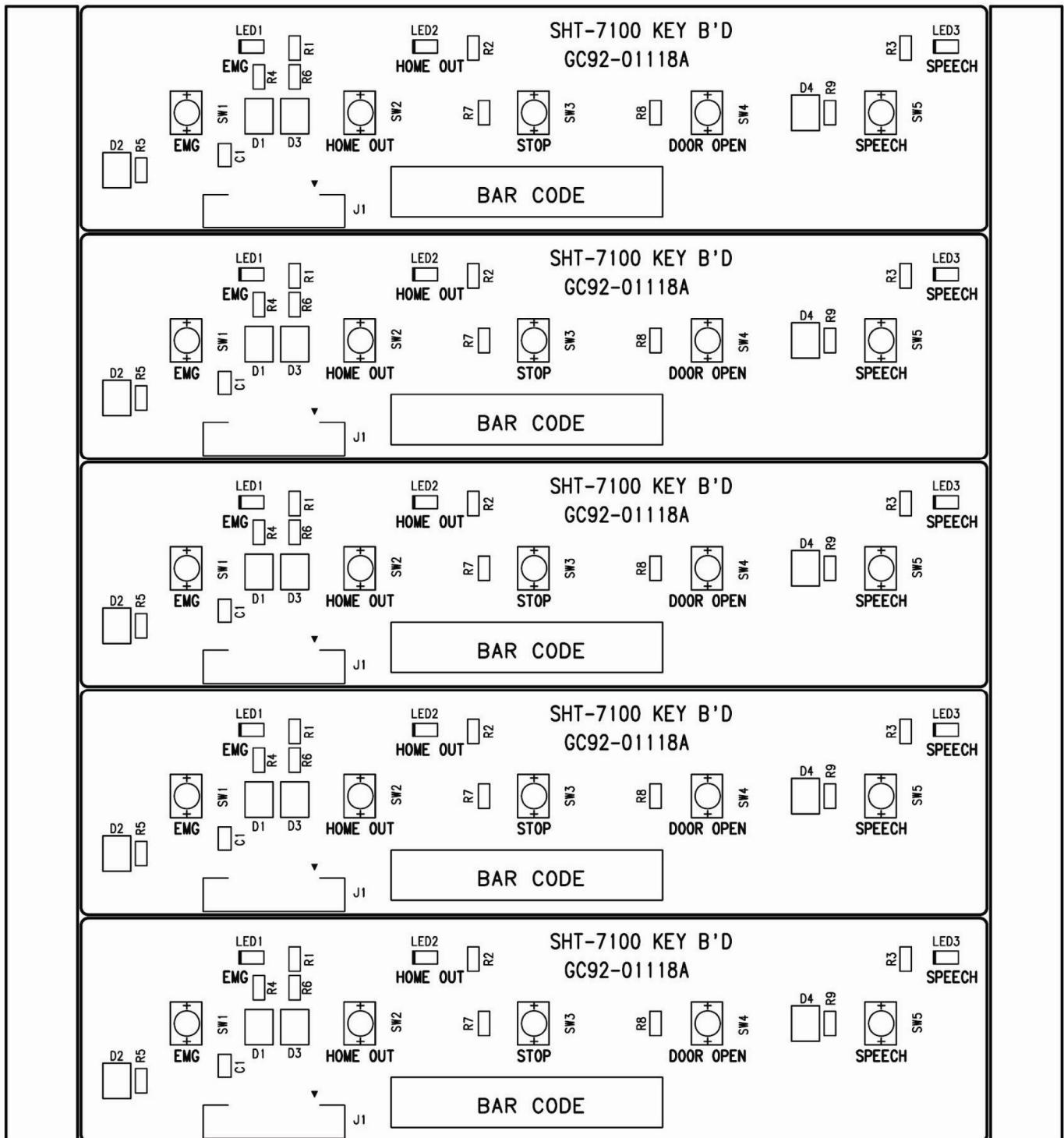
11.2 Part Layout on Front Side of SHT-7171XM/EN Main Board



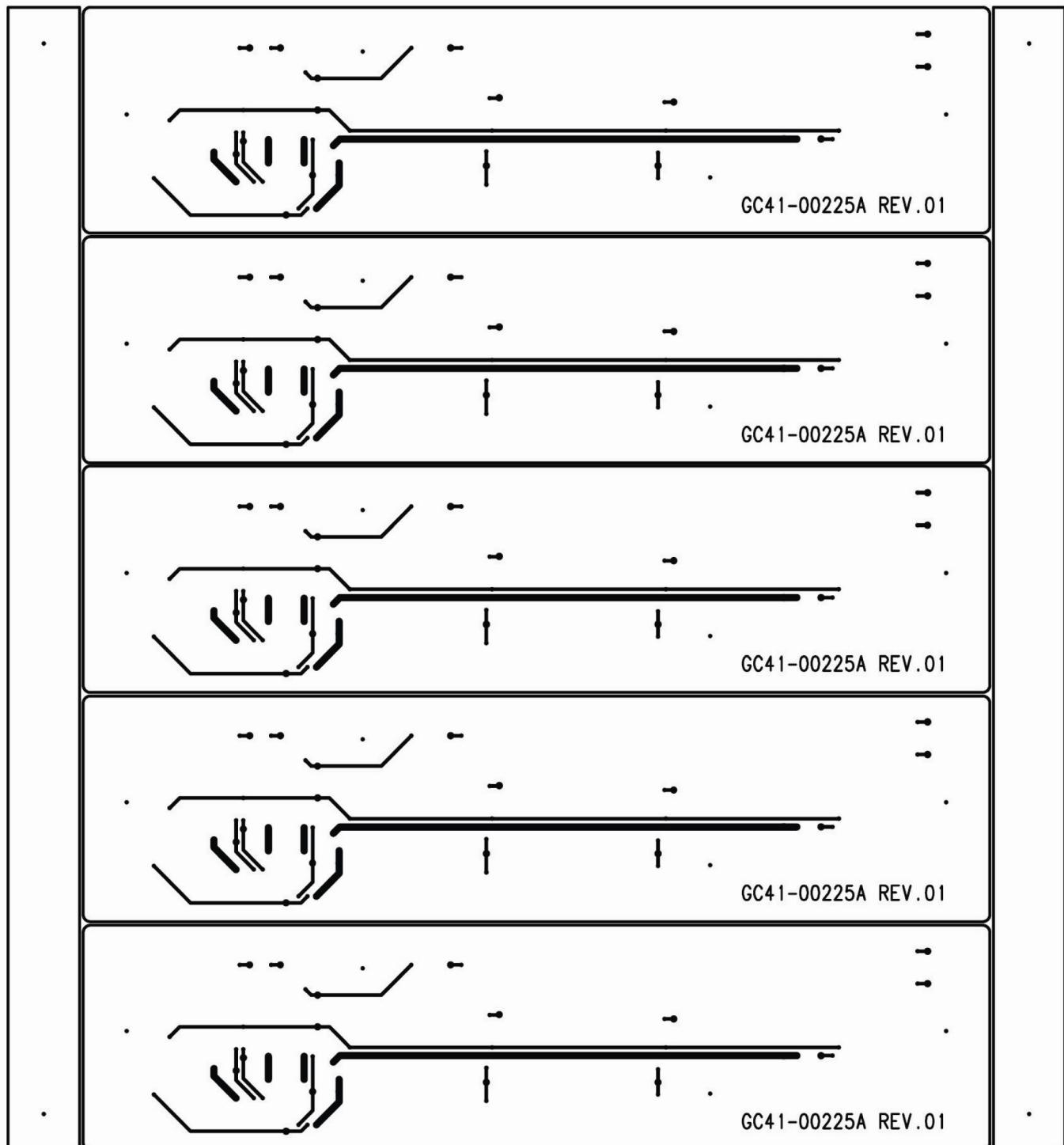
11.3 Part Layout on Rear Side of SHT-7171XM/EN Main Board



11.4 Part Layout on Front Side of SHT-7171XM/EN Key Board



11.5 Part Layout on SHT-7171XM/EN Key Board





Blank

Management	
No	

**Service Manual of Home Automation
SHT-7171XM/EN
GC68-01027C ED. 01**

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