Warranty



To receive after-Sale service, have the following ready when you contact our branches

- 1. Name of the product
- 2. Model number of the product
- 3. The area of problem
- 4. Phone number and address at
- which you can be contacted.

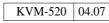
Warranty Card				
PRODUCT				
MODEL				
DATE PURCHASED				
WARRANTY PERIOD				
AGENCY ADDRESS				

KOCOM Warranties the original purchaser of this product as follows.

- 1) This product is produced under strict quality control and inspection procedures.
- 2) If this product breaks down during proper use as a result of product defect, KOCOM will repair it within one year from date of purchase free of charge.
- 3) The following cases will be subject to charge, even during warranty period:
- a. Breakdown during transport, or through careless treatment, by consumer.
- b. Breakdown cause by unauthorized repair, or system modification.
- c. Breakdown caused by natural disaster or power disorder.

KOCOM CO.,LTD.

This manual is based on the date as shown in the right and specifications are subject to change without notice for quality improvement.



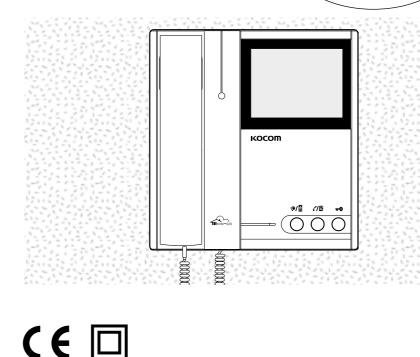
KOCOM

Video Door Phone for Apartment Unit

KVM-520 User's Manual for Operation and Installation

- Communication with and monitoring by front door camera
- Interactive call and communication between house and guardroom
- Inner line call and communication within the house
- Communication with lobby phone and door open function

Thank you very much for purchasing KOCOM video doorphone. please read this manual thoroughly to ensure correct usage, before operating



Cautions for Safety

For safe use, please stick to the following cautions.

• Read this cautions carefully and keep it within easy reach of you.

- For right installation, read this cautions thoroughly. Please install the product according to its specifications.
- This Cautions for Safety may include items that are not contained in specifications of the product that consumer purchases.
- Reading this cautions, use the product in a right manner. For further information, please contact our A/S center.

About Symbol

A variety of symbols are used in this Cautions for Safety and your products to guide you to use products in a right and safe manner and to prevent possible risks for users and other persons and damages to their property. The meaning of each symbol is as follows. After fully aware of meaning of each symbol, read the following cautions.



This symbol means that wrong handling or ignorance of matters that this symbol indicates may cause serious injury or even death of user.



This symbol means that wrong handling or ignorance of matters that this symbol indicates may cause serious injury or property damage of user.



This symbol means the matter that user should not do at nay event.

This symbol means that user should follow the instructions.

Symbols on Drawing



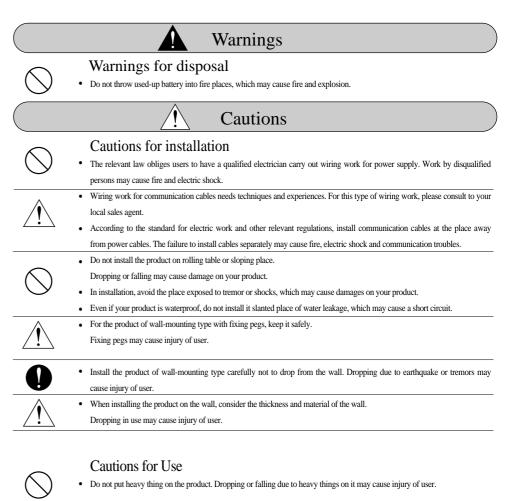
This symbol means that contents (high voltage, electric shock, warnings, etc.) to which user should pay attention are included.



This symbols means that a certain action is not permitted. Specific points not permitted are depicted around this symbol (for example, in the left drawing, disassembly is not permitted.).

This symbol means instructions or is used to force user to do a certain action. Specific instructions are depicted on the drawing

(for example, the left drawing instructs user to detach power plug from an outlet).



Cautions for Repairs and Maintenance

		Cautions for Repairs and Maintenance
<u> </u>	•	Clean the dust inside the product regularly. Failure to clean the dust for long time may cause fire. For inspection and cleaning
		of the inside of product, please contact your local sales agent.
21	•	When putting your hands into the inside of equipment, be sure that plug is already detached form an outlet or circuit-breaker is
e		turned off.
$\overline{\frown}$	•	Be careful not to expose the product to benzene, thinner or hot water.
\mathcal{S}	•	Do not expose detergent directly to the product in a way of spaying, etc.
	٠	Moving equipment, be sure that the plug is detached from an outlet.
8-5	•	For equipment whose cables are connected to terminals, please contact your local sales agent or qualified electrician.
\mathbf{A}	٠	When replacing old fuse with new one, do not directly touch it with bare hands.
∕!∖		Use insulated tools or contact A/S center.

	Warnings		Warnings
\bigcirc	 Cautions for Use Do not install the product at bathroom or at the place near a washing machine, or at other humid places. It may cause fire or electric shock. Do not install the product at the place near a dresser, humidifier or heater. Also avoid the place exposed to spark, heat or humidity. All of them may cause fire and electric shock. Do not install the product at the place exposed to dust, metals and harmful gas such as hydrogen sulfide gas, all of which may cause fire and electric shock. Do not install the product at the place exposed to water and chemicals. This may cause fire and electric shock. Do not install the product at the place exposed to water and chemicals. This may cause fire and electric shock. Do not scratch, break or arbitrarily process power cable, which may cause fire and electric shock. Putting a heavy thing on a cable, heating it or pulling it may cause impairment on it. Do not place power cable at the place near heating equipment. It may cause damage of cable's clothing material, which result in fire ad electric shock. When detaching plug from an outlet, do not pull power cable. Damages on power cable may cause fire and electric shock. When detaching plug from an outlet, please hold the plug 		 Cautions for Use This product is only for home. Do not the product for industrial or military use. Do not handle the equipment with wet hand, which may cause electric shock. Do not place wet or metallic materials on equipment. Water leakage or intrusion of metallic materials may cause fire and electric shock. Do not block the ventilating opening of equipment or put alien substances into it, which may cause fire and electric shock. Do not use battery that is not designated or mix new battery with old ones. Insert batteries to fit their polarity. Explosion or leakage of battery may cause fire and injury of user. When visitor's image or voice is not displayed on screen or not sounded from speaker, please check his/her identity before opening the door and contact our A/S center. Do not use equipment when lighting is expected or strokes. It may cause fire and electric shock. Do not open rear cover, cabinet and cover of equipment. It may cause electric shock.
0	 tightly. Do not detach plug from an outlet with wet hand. I may cause electric shock. When using the existing wiring, be sure of the suitability of it to the product and install the product. Failure to this caution may cause fire. 		 Do not modify power cable or pull it with excessive strength, which may cause fire and electric shock. Do not modify equipment. It may cause fire and electric shock. Call signal may cause damage on user's hearing ability.
	 When moving equipment, be sure that plug is detached from an outlet and communication cable is disconnected. Damage on cables may cause fire. Voltage other than prescribed rated voltage is not permitted, which cause fire and electric shock. Do not use power terminal of product's main body in other equipment than prescribed ones. It may cause fire and short- 	_	Cautions for Abnormality When power cable is broken (exposure of core or short-circuit), do not fail to replace broken cable with new one. Failure to replace broken power cable may cause fire and electric shock.
	In wiring work, use the designated wiring materials. Wiring work using other materials than designated ones may cause fire.		 When detecting any abnormalities in equipment (communication is not available, images do not be displayed on screen, calling is not available, or abnormal sound is heard), immediately detach plug from an outlet, or turn off circuit breaker or detach batteries from equipment (in case that equipment has no plug) before requesting repairs to sales agent or A/S center. Keeping
\bigcirc	 The equipment without waterproof marking shall not be installed at the place water leaks. It may cause electric shock and short circuit. When working, be sure that power is disconnected. Failure to disconnect power may cause electric shock. 		 connection to power supply may cause fire and electric shock. When alien substances go into equipment, immediately detach plug from an outlet, or turn off circuit breaker or detach batteries from equipment (in case that equipment has no plug) before requesting repair to sales agent or A/S center.
	Be sure that the power cable is connected and earths according to designated method. Failure to connection and earth may cause fire.		 In the case of smoke or smell of unknown origin from equipment, keeping use it may cause fire and electric shock. Detach plug from an outlet, or turn off circuit breaker or detach batteries from equipment (in case that equipment has no plug) and be sum to check no more smoke or small from equipment before requesting requiring to sale agent or A/S senter. Since personal
	 Do not connect power to other terminals than designated ones. It may cause fire and electric shock. When building a system with the product, do not connect the product other equipment than designated one. It may cause 	_	 sure to check no more smoke or smell from equipment before requesting repair to sales agent or A/S center. Since personal repairing work by user may serious accidents. In any case, do not repair equipment with your own hand. When dropping equipment or breaking its cabinet, detach plug from an outlet, or turn off circuit breaker or detach batteries from equipment (in see what equipment has an plug) before requesting requiring series of A/S center. Keeping work
	fire. • When installing A/C switch, do work after removing the substance that may cause short circuit or electric shock. • Before installing or providing A/S service, be sure that the power is disconnected.		from equipment (in case that equipment has no plug) before requesting repair to sales agent or A/S center. Keeping use equipment may cause fire and electric shock.Avoid direct exposure to sunlight and store equipment at the place free from dust and high temperature as you can. High

temperature of equipment may cause fire and electric shock.

Safety Instructions, Warnings, and Cautions of Each System

- This equipment is electronically precision equipment, so do not arbitrarily disassemble it.
- In installation of the product, do not fail to follow the specifications (specifications offered by KOCOM).
- Do not touch the product with alien materials (for example, sticker, magnet, opener, metal chopstick, etc.) or insert them into the product (it may cause reduction of the product's durability and harmful results to user as well).
- In the rainy season, water is likely to penetrate into the product along the wiring. Thus, U-type finishing is recommended as a desirable method of end part finishing.

System for Multi-unit Housing

- In installation, be careful that other wiring or metallic substances should not contact to the system for multi-unit housing.
- In installation, be careful that alien substances should not go into the system.
- Before installation, be fully aware of wiring specifications of each model.
- In installation, be sure that the length and dimension of wiring meet the requirement prescribed in installation manual.
- Excessive strength and external shock may cause mechanical breakdowns of equipment.
- Do not arbitrarily open the case of the product
- (When user opens the case arbitrarily, KOCOM may reject to provide A/S service).

Lobby Phone: KLP-(100, 104, 108, 112), KLP-(P100, P104, P108, P112), KDP-(100, 104, 108, 112)

- A stroke of lighting or strong shock may give fatal and adverse effects on system. Thus, do not fail to ground the system.
- For registration of household password, please refer to user manual of the concerned product (it is applied to ten-key lobby phone products [KLP-100, KLP-100].

Image Splitter: KSV-104P

- An image splitter can support up to four households.
- In the case of over four householders, additional image splitters are needed.

Image Amplifier: KHU-102P

- In installation, follow the specification for image in/output.

Video Phone

- In assembling the product, be careful that wall-mounting pegs should not contact with wirings.
- In connection of cables, strip its insulation off as much as necessary (Excessive stripping off its insulation may cause short circuit).
- Be careful that signal cables should not be wired with A/C wiring (it may cause poor display quality).
- Do not drop handset (its damage or short-circuit due to drop may make communication impossible)
- When connecting wires to terminals, use standard screwdriver (otherwise, screws may loosen, which will result in disconnection of wiring).
- Do not clean CRT screen with wet towel or cloth. When water penetrates into the product, it may cause short-circuit.
- Do not fail to clean it with dry towel or soft cloth.
- Do not install camera at the place where water penetrates or leaks. Penetration or leakage of water may cause electric shock or short circuit.

Home Auto: KHV-444/454/446/456

- Do not insert any metallic materials into the inside of fuse cover. It may cause electric shock.
- Do not close ear to speaker. Abrupt call or signal may give harmful effects on user's hearing.
- After turning power on and off, check again that input contents are saved correctly. Otherwise, data may be missed when auto-signal mode operates.
- Use a standard detector. Non-standardized detectors are likely to cause fire due to excessive voltage or current.
- Please install motion detector at a place easily detect the motions of subjects. When detector is installed at a wrong place or obstacles block the front side of detector, it cannot work well.
- When setting night guard mode, be sure that detector should be connected well.
- Sufficiently charge the battery of wireless handset before using it. Be careful that children should not throw battery. Be sure to close battery cover (When children throw or disassemble battery, it may cause serious accidents).
- Be careful that the polarity of the product matches to that of guardroom communication cable. When polarity is reversed, it may cause abnormal operations of the product or apartment system as a whole.

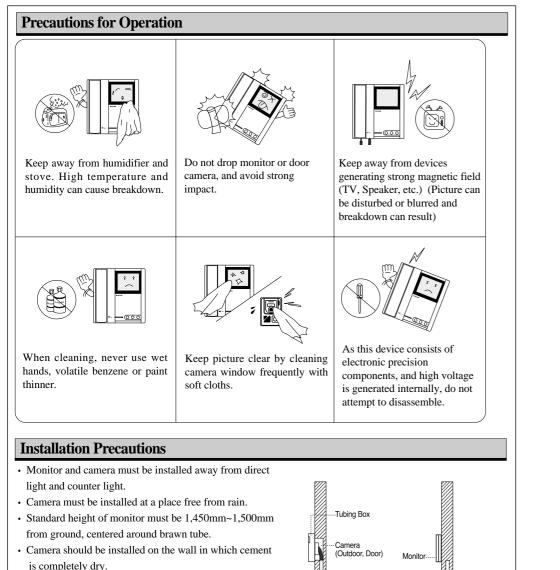
4-Line Related Products: KVM-930, 931, 960, IP-203APB, AM-10KP, KCV-344/354

- In wiring work, be careful that wirings should keep away from the wall-mounting pegs or other furniture at regular interval. Contact of wiring with wall-mounting pegs, etc. may cause short-circuit, electric shock and fire (it is applied to all products with wall-mounting pegs).
- Use the prescribed standard wirings. Non-standardized wirings may give adverse effects on operation of product

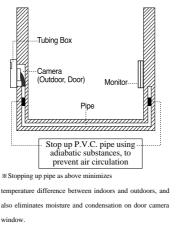
(it is applied to both video phone and CCTV).

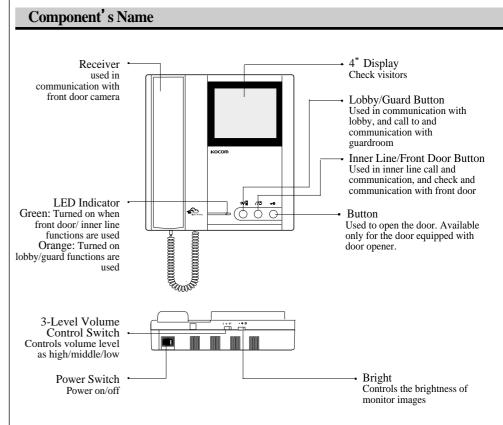
CCTV Camera

- Do not install at noisy places.
- Do not install at the place exposed to electromagnetic waves.
- Excessive electromagnetic waves may cause continuous noise on screen and mechanical troubles
- When installing camera outdoor, please put it in the outdoor case. Otherwise, when it rains, the camera may be broken or operate incorrectly.
- Install the product at well-ventilated places.
- Do not use the product for medical or military uses.
- Do not install the product at humid places. It may cause reduction of the product's durability as well as fire and electric shock.
- When lens is stained with alien substances, clean it with soft cloth to prevent the damages on it.
- Install the product out of reach of children.

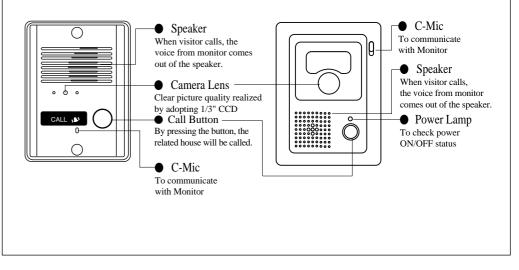


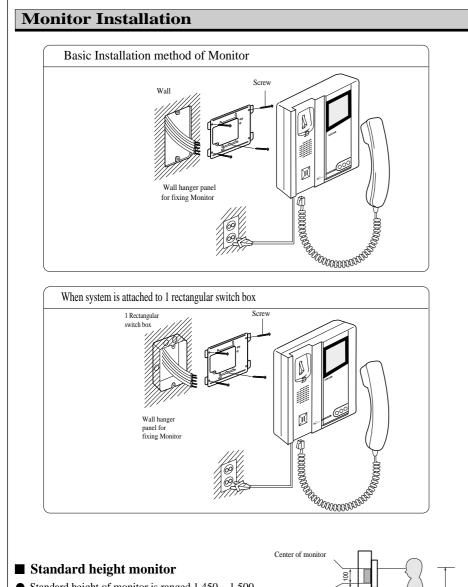
- If installed during winter season at temperature below -5°, condensation might be generated inside monitor and camera due to temperature difference between indoors and outdoors. To prevent breakdown due to such condensation, connection should be made in 2 hours or more after installation.
- Do not install monitor and camera in locations subject to direct heating as harmful gases may subsequently be emitted in significant amounts.



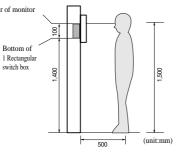


■ KC-D20 Metal Pinhole Camera & KC-B61 Camera



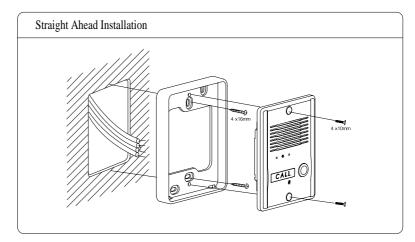


- Standard height of monitor is ranged 1,450 ~ 1,500 from bottom to the center of monitor screen.
- For installation, avoid the places where there is any excessive humidity,magnetic force, dangerous chemicals, direct ray of sun, and any places near a heater which can cause break down.



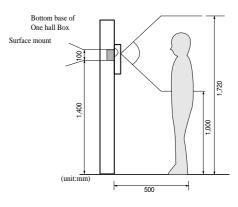
Door camera Installation

■ KC-D20 Surface-mounting Door Camera Installation

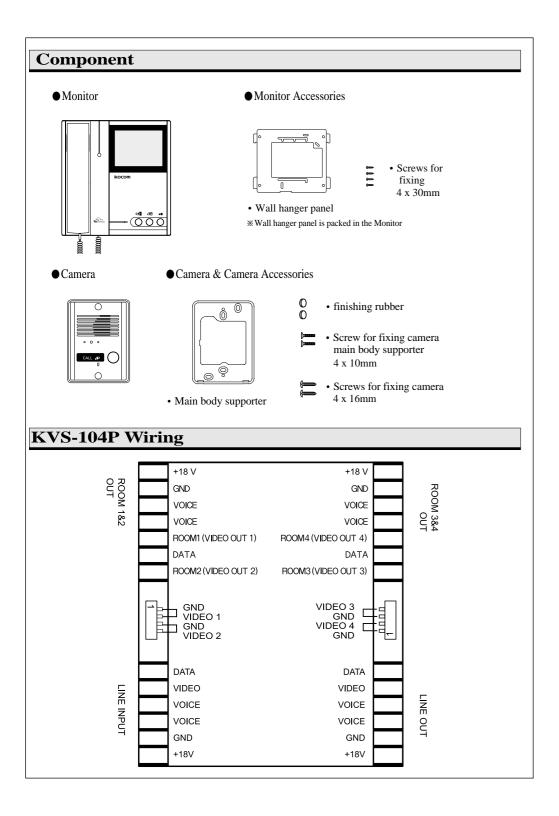


After attach the body supporter with 2 screws, put the Door Camera into the grooves of body supporter, and then fix it with 2 screws and stick the finishing materials.

■ Standard Height of Door Camera



- Standard height of the door camera is 1,400mm \sim 1,450mm from the bottom of one camera to the floor.
- In case that the height of Door camera exceeds the range of min. 1,250mm~1,550mm, it is impossible to control the screen picture with only the lens angle, and therefore, be careful of the height of camera installation.



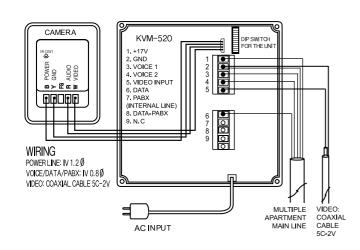
Product Specifications

KVM-520 Monitor

■ KVM-520 Monitor				
Power	AC 220V (standby: 2.5W, operating: 20W)			
	AC 120V (standby: 2.5W, operating: 20W)			
Voltage of Operating Power	DC 17V \pm 1V			
Tone Sounds of Lobby, Guardroom,	Call Sound (Electronic Tone Sound). Sound maintains for 30 seconds when device is called.			
and Inner Line				
Monitoring Function	By using front door button on monitor, camera monitors front door situations			
of Front Door Camera	(however, lobby monitoring function is not available).			
Call Method	Pressing front door camera call button, call sound rings (tone sound 2 times)			
	Front door image / lobby image display			
	Calling to house at lobby using preset house No., tone sound rings.			
Communication Method	Handset type (two-way)			
Available Image Displaying Time	About 30 seconds from call to front door camera			
Available Communication Time:	About 3 minutes under communication state with front door, lobby, and guardroom			
The Number of Wirings	Front Door Camera: 4-Line Polar Wiring, over IV 0.65mm applicable			
	Main Wiring:VOICE1/VOICE2/DATA (3-Line) Polar Wiring, over IV 0.8mm applicable			
	Power(+/GND) (2-Line) Polar Wiring, over IV 1.2mm applicable			
	For images, coaxial wiring is used-using COAXIAL 5C-2V			
CRT	CRT: 4" Straight Tube B/W			
Exterior Material	Non-combustible ABS Resin 191(W) X 217(H) X 52(D)mm			
Dimensions				
Communication Coverage	Front Door Camera: 30m when using 0.65mm			
	Should be within 300m when the same specifications with main wiring is applied			
	(Same as 4-Line Parallel Method)			
Guaranteed Operating Temperature	Guaranteed Temperature for Monitor: 0° C ~50° C			
■ KC-B61, KC-D20 Front Door	r Camera			
Input Power	(Communication : DC 12V \pm 1V (Max. 3W) Supplies power for monitor			
Electricity	Max. 150mA			
Image Device	CCD			
View engle	KC-B61 (120°) / KC-D20 (90°)			
Exterior Material	Non-combustible ABS Resin			
Dimensions	KC-B61 [96(W) X127 (H) X 34(D)mm], KC-D20 [96(W) X127 (H) X 32(D)mm]			
Minimum Illumination	0.1Lux(LED ON)			
Guaranteed Operating Temperature	-10° C ~50° C			

Exterior Wiring Diagram

Basic Wiring

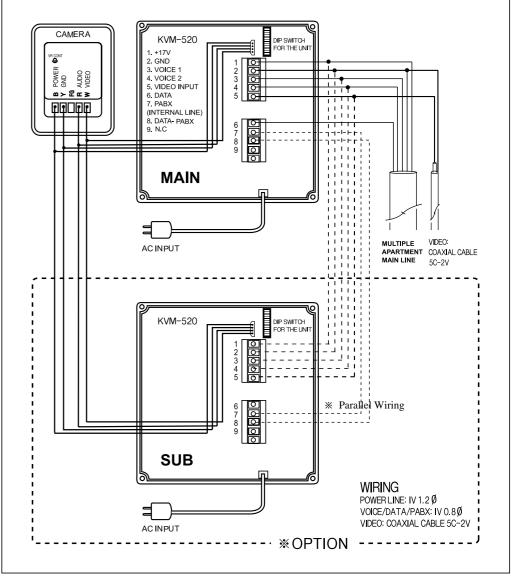


Precautions for Wiring

- As incorrect wiring may cause the device's non-operation or poor communication quality, please carefully conduct wiring work.
- When connecting a wiring chord to a terminal, loosen screw, insert the end of the chord into the bottom part of screw, and tighten the screw.
- When fixing wiring chord, use stapler not to cause damage to the chord.
- · When using existing wiring, please be cautious not to cause disconnection and short-circuit.

Wiring Diagram

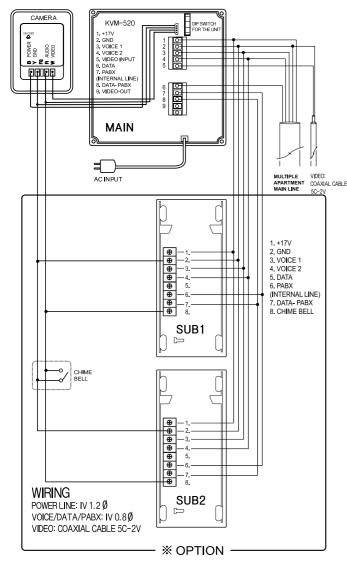
- Video phone-to- video phone wiring within a house (Installation up to 3 units available)
 - ※ Cautions
 - 1. No. 6 terminal (data line) is not connected in sub video phone.
 - 2. Terminal No.1, 2, 3, 4, 5, 7 and 8 are used in a form of parallel wiring in additional connection between main and sub device.



■ Video phone-to-interphone wiring within a house

* Cautions

- 1. Terminal No. 5 (data line) is not connected in sub interphone.
- 2. Terminal No.1, 2, 3, 4, 7 and 8 are used in a form of parallel wiring in additional connection between main and sub device. (Video phone terminals as basis)



* Communication between interphone (KIP-603) and front door camera (KC-D20) is not available.

Instructions for Operation

Functional Descriptions

- ▷ Communication with front door when a visitor comes
 - If a visitor presses the call button on camera.
- 1. Tone sound rings in indoor monitor, and screen is automatically turned on to display visitor.
- 2. After picking up the receiver to monitor visitor, communicate with visitor.
 - (If user does not pick up the receiver, screen is automatically turned off after 30 seconds)
- 3. After communication with visitor, hang up the receiver.

If user intends to keep communication with visitor going, hang up the receiver and press button in front side of product. Then, screen is turned on again and users can continue to communicate with visitors.

- \triangleright When user intends to monitor front door situation \checkmark is front door/inner line button
- 1. Pressing front door/inner line button on the video phone, screen is turned on.
- 2. Picking up handset (receiver), communication with front door is available.

(However, note that inner lines are called while picking up handset.)

▷ Call from guardroom - How to communicate (♥/): guard/lobby button



- 1. Upon tone sound ringing, Orange LED in the front side of video phone flickers.
- 2. Picking up handset, communication with guardroom available (LED is turned off).

(When receiving call from guardroom while picking up handset, user should press guard/lobby button to communicate with guardroom.)

- ▷ Call to guardroom How to communicate
- 1. Picking up the handset and pressing guard/lobby button, tone sound rings.

2. Picking up handset at guardroom, communication with guardroom is available (available communication time: 3 minutes). Hang up the handset, communication is automatically cut off.

- ▷ Call from lobby How to communicate
- 1. Receiving call, orange LED in the front side of video phone flickers (Tone sound rings for 30 seconds).
- 2. Picking up the handset, communication with lobby is available (orange LED is turned off).

(When receiving call from lobby while picking up handset, user should press guard/lobby button to communicate with lobby.)

3. If user presses door open button **=0** while communicating with lobby, common front door equipped with opener is opened.

- \triangleright Call from inner lines \checkmark
- 1. Receiving call, Green LED in the front side of video phone flickers.
- 2. Picking up the handset, communication with inner line is available (Green LED is turned on).

(When receiving call from inner line while picking up handset, user should press guard/lobby button to communicate with inner line.)

- 3. Available communication time with inner line is for 3 minutes. If 3 minutes elapses, communication is automatically cut off.
- ▷ Call to house using inner line How to communicate
- 1. Pick up the handset and press
- 2. Picking up handset at newly installed house device, communication is available. Communication maintains for 3 minutes. Hanging up the handset, communication is cut off.
- * With 3-level volume control switch, user can arbitrarily control the volume level into high, middle, or low.
- * For every function, call signal maintains for 30 seconds. As 30 seconds elapses, call signal and screen returns to standby mode.
- * Every communication maintains for 3 minutes. As 3 minutes elapses, device returns to standby mode.

■ Instructions for Operation

Model: (KLP-100), Functional Specifications

▷ Call to house

When a visitor calls to house using lobby phone, press house number.



- > Pressing call button, call sound rings and house is called.
- > If the house responds to the call, communication is available for 3 minutes.

(Pressing door open button during the communication, opener installed common front door is opened.)

- > When communication is ended, device returns to standby mode.
- ▷ Call from lobby phone to guardroom

Pressing "0" and call button on the lobby phone, guardroom is called and lobby ID is displayed in guardroom device.

> Communication with guardroom maintains (for 3 minutes). When communication is ended, device returns to standby mode.



▷ Password Change

(Password change function is only available during the call with house.)

Pressing "# # 0 0 #" during the call with house, "_____" is displayed.

Input new password and press "#" button.



 \triangleright Door open using lobby phone with password

Pressing "house number + # + password + #" designated by the house, door is automatically opened.

e.g) Press house number "1111" and password.



- \triangleright Call to house
- 1. Press the house number on the lobby phone.

(If pressing house number once more for call sound outputs, call is cancelled.)

(As separate cancel button is not available on these devices, press house number once more to cancel the call.)

2. With call sound rings, house is called.

(In the case of newly installed lobby phone, call from and communication with guardroom, or house is on the line, devices output absence melody and returns to standby mode.)

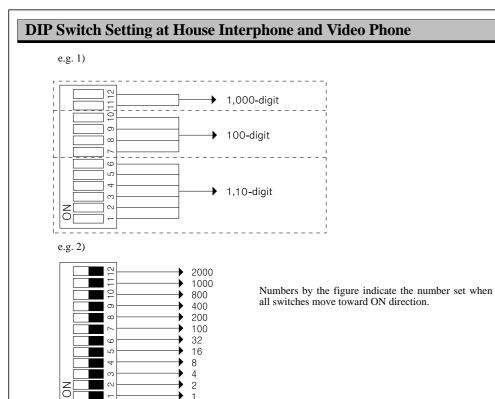
- ▷ In the event that opener operates during the communication with house
- 1. If door open button is pressed at the house during the communication with lobby phone, common front door is opened.)

(Opener specification: within DC12V300mA - maintains 2 seconds)

DIRECT BUTTON TYPE LOBBY PHONE OPERATION

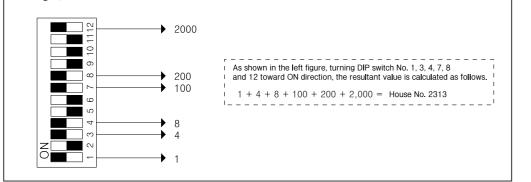
Call to the house

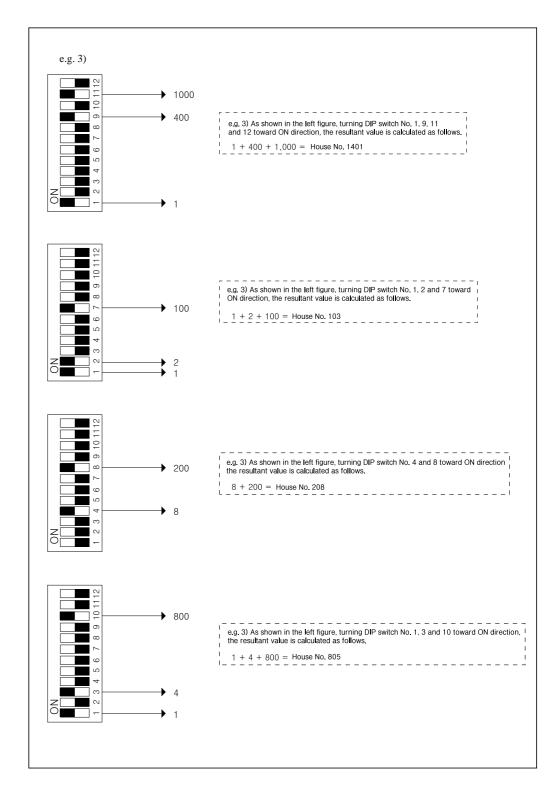
- Press the certain call button for the house. Then, call signal (Tiriri~) sounds and it makes the call to the certain house.
- While making call to the house, if the same call button is pressed once again, the call is cencelled. (There is no certain cancel button)
- In case, it is on the line with other lobby phone or guard master, absence signal (Ti~Ti~ Ti~) sounds and it is on the mode of stand-by.

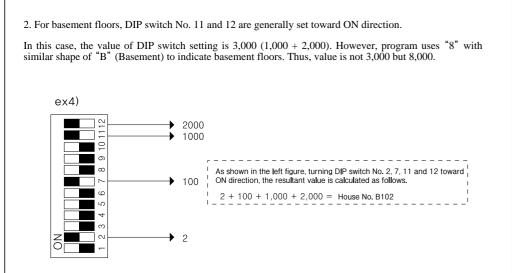


- 1. Above figure, turning all DIP switches from No.1 to No. 12 toward ON direction, numbers set by DIP switches are summed up.
- e.g. 1) Above figure, turning switch No.1 and No. 2 toward On direction, value is set at 3 (1 + 2 = 3) since numbers set by switches are 1 and 2.
- e.g. 2) Above figure, turning switch No.1 and No. 3 toward On direction, value is set at 4 (1 + 3 = 4) since numbers set by switches are 1 and 3.

e.g. 3)

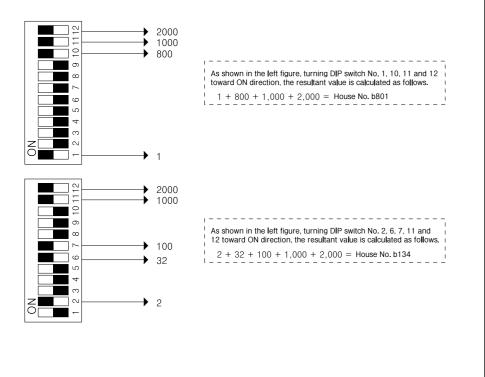






3. If DIP switches are set as in the above example, press "8102" to call the house using guardroom master or lobby phone.

In addition, house number is displayed as small character "b102" in FND of guardroom master or lobby phone.



- 4. Precautions for DIP Switch Setting (House No. Setting)
- 1) After setting DIP switches, device power should be reset.

(In power switch ON state, DIP switches cannot be set.)

- 2) For setting basement floors, switch No. 11 and 12 should be ON state.
- 3) For direct dialing type lobby phone, up to 12 houses can be set.

Thus, when DIP switches of house interphone and video phone are set, available houses are also 1 to 12 in number.

- 4) If user wants to use interphone or video phone as sub-phone, all DIP switches should be in OFF state.
- 5) When user sets DIP switches, excessive impact on DIP switches may cause abnormal or erroneous operation of device.