

Warranty



To receive after-sales 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.



"CAUTION: IT HAS POSSIBILITY TO HAPPEN INOPERABLE, AS THIS PRODUCT EXPOSED TO ELECTRON WAVE"

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

KVM-524RG 04.08

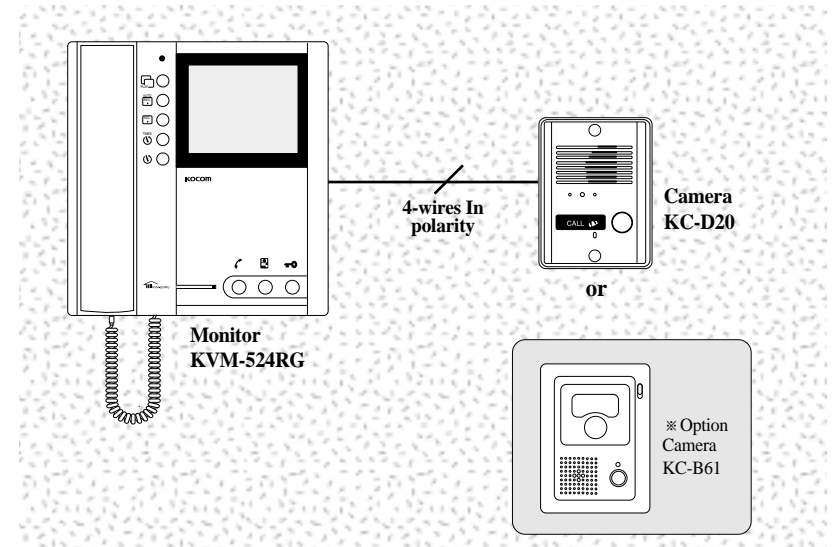
KOCOM® VIDEO DOORPHONE

KVM-524RG Operating Installation Manual

Clear & Bright Picture at Low Light

- CCIR/EIA: Images Recordable
- 4" Flat Monitor / 4 Wired In Polarity
- Easy Installation
- Wide view angle
- AC 110V or 220V (50Hz / 60Hz) Transformer type
- Door release function
- Additional 1 Monitor + 1 Camera + 2 Doorphone available
- Internal call & communication function

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



KOCOM CO.,LTD.





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.

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



Warnings



Warnings for disposal

- Do not throw used-up battery into fire places, which may cause fire and explosion.



Cautions



Cautions for installation

- The relevant law obliges users to have a qualified electrician carry out wiring work for power supply. Work by disqualified persons may cause fire and electric shock.
- Wiring work for communication cables needs techniques and experiences. For this type of wiring work, please consult to your local sales agent.
- According to the standard for electric work and other relevant regulations, install communication cables at the place away from power cables. The failure to install cables separately may cause fire, electric shock and communication troubles.
- Do not install the product on rolling table or sloping place.
Dropping or falling may cause damage on your product.
- In installation, avoid the place exposed to tremor or shocks, which may cause damages on your product.
- Even if your product is waterproof, do not install it slanted place of water leakage, which may cause a short circuit.
- For the product of wall-mounting type with fixing pegs, keep it safely.
Fixing pegs may cause injury of user.



- Install the product of wall-mounting type carefully not to drop from the wall. Dropping due to earthquake or tremors may cause injury of user.



- When installing the product on the wall, consider the thickness and material of the wall.
Dropping in use may cause injury of user.



Cautions for Use

- Do not put heavy thing on the product. Dropping or falling due to heavy things on it may cause injury of user.



Cautions for Repairs and Maintenance

- 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.



- When putting your hands into the inside of equipment, be sure that plug is already detached from an outlet or circuit-breaker is turned off.



- Be careful not to expose the product to benzene, thinner or hot water.
- Do not expose detergent directly to the product in a way of spraying, etc.



- Moving equipment, be sure that the plug is detached from an outlet.
- For equipment whose cables are connected to terminals, please contact your local sales agent or qualified electrician.



- When replacing old fuse with new one, do not directly touch it with bare hands.
Use insulated tools or contact A/S center.



Warnings

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 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 and 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 tightly.
- Do not detach plug from an outlet with wet hand. It 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.



- 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-circuit.



- In wiring work, use the designated wiring materials.
Wiring work using other materials than designated ones may cause fire.



- 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.



- Be sure that the power cable is connected and earths according to designated method. Failure to connection and earth may cause fire.



- 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 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.



Warnings

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.



- 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.



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.
- 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 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.
- 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 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 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.


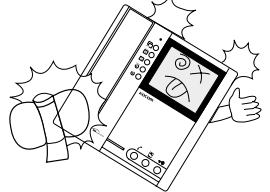
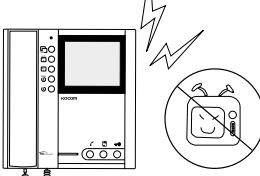

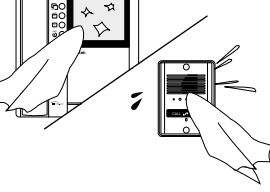
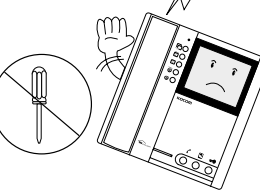
Video Phone

- 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.

4-Line Related Products

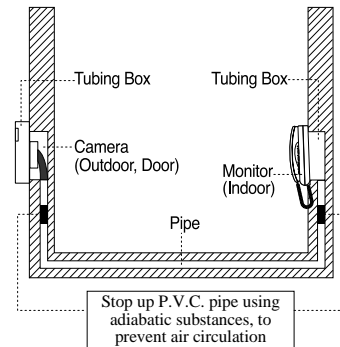
- In wiring work, be careful that wirings should keep away from the wall-mounting pegs or other furniture at regular interval. Contact of wiring with wall-mounting pegs, etc. may cause short-circuit, electric shock and fire (it is applied to all products with wall-mounting pegs).
- Use the prescribed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

Precautions for Operation

 <p>Keep away from humidifier and stove. High temperature and humidity can cause breakdown.</p>	 <p>Do not drop monitor or door camera, and avoid strong impact.</p>	 <p>Keep away from devices generating strong magnetic field (TV, Speaker, etc.) (Picture can be disturbed or blurred and breakdown can result)</p>
 <p>When cleaning, never use wet hands, volatile benzene or paint thinner.</p>	 <p>Keep picture clear by cleaning camera window frequently with soft cloths.</p>	 <p>As this device consists of electronic precision components, and high voltage is generated internally, do not attempt to disassemble.</p>

Installation Precautions

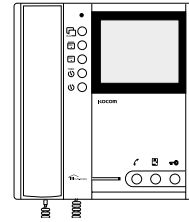
- Monitor and camera must be installed away from direct light and counter light.
- Camera must be installed at a place free from rain.
- Standard height of monitor must be 1,450mm~1,500mm from ground, centered around brown tube.
- Camera should be installed on the wall in which cement is completely dry.
- 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.



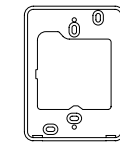
※ Stopping up pipe as above minimizes temperature difference between indoors and outdoors, and also eliminates moisture and condensation on door camera window.

Component

● Monitor & Camera

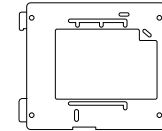


● Camera Accessories



- finishing rubber
- Screw for fixing camera main body supporter 4 x 10mm
- Main body supporter
- Screws for fixing camera 4 x 16mm

● Monitor Accessories



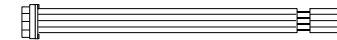
- Screws for fixing 4 x 30mm

● Wall hanger panel

※ Wall hanger panel is packed in the Monitor

● KDP-602G Connector Wire for Extension

4 x 150mm (5264-04TYPE)

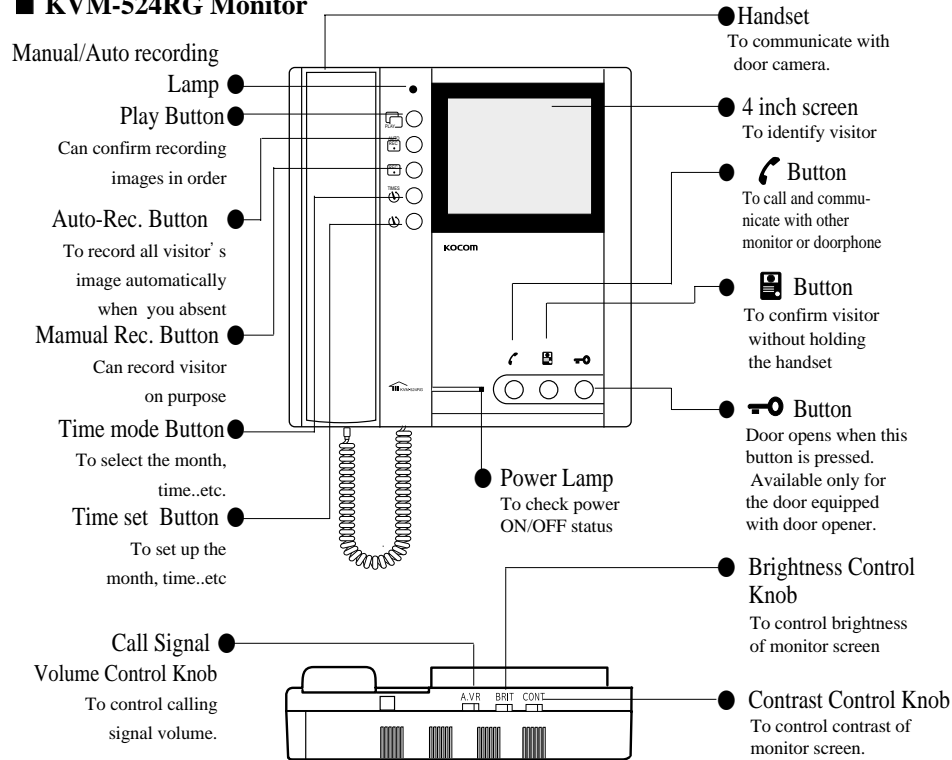


Specifications

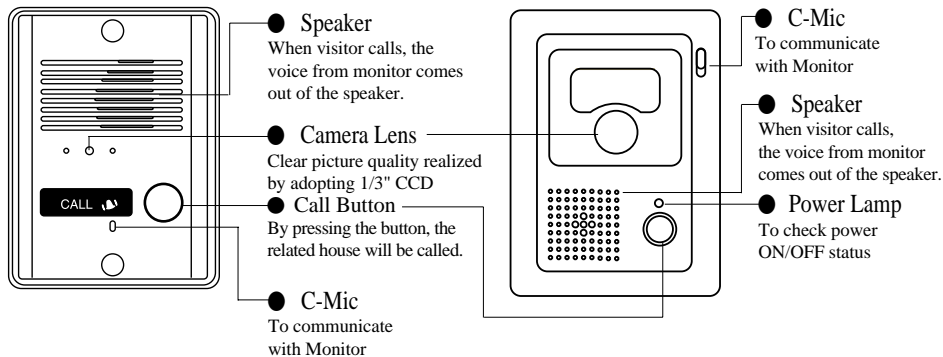
MONITOR (KVM-524RG)	Power source	AC 110V - 120V ~ (50Hz / 60Hz) or AC 220V - 230V ~ (50Hz / 60Hz)
	Power consumption	Max: 19W, Stand by : 4W
	Ambient temperature	0°C~+50°C
	Braun tube	4 inch Flat Tube (B/W)
	Communication system	Duplex handset conversation
	Call signal sound	Electric chime & beep sound
	Output Impedance	Picture : 75ohm, Voice : 600ohm
CAMERA (KC-D20)	Wiring	4 Wired in Polarity (VCC / GND/VOICE / PICTURE)
	Max Wiring Distance	φ 0.65 Single Cable/50m, 5C-2V Coaxial Cable/100m
	Dimension	210(W) × 222(H) × 53(D)mm
	Power source	DC12V ± 1V(power from Monitor)
	Power consumption	Max: 2.5W
	Assurance temperature	-10°C~50°C
	Scanning frequency	Horizontal: 15.734KHz, 15.625KHz Vertical: 50Hz (CCIR)/60Hz (EIA)
	Lens	F:2.0, f=3.0mm
	Min. Illumination	0.1Lux (LED ON)
	Dimension	96(W) × 127(H) × 32(D)mm
	Illumination	Infra-red LED
Angle of picture	Diagonal 120° (KC-B61), 90° (KC-D20)	
Color of KC-D20	Black or Silver	

Name of each part

■ KVM-524RG Monitor

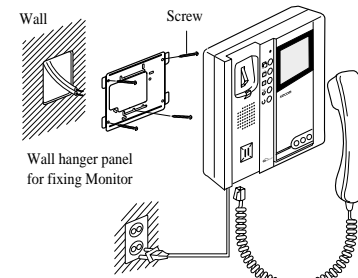


■ KC-D20 Metal Pinhole Camera & KC-B61 Camera

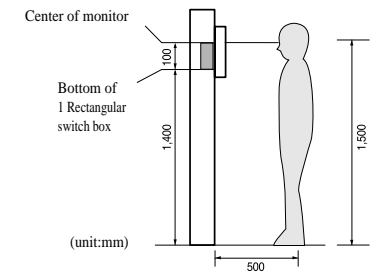
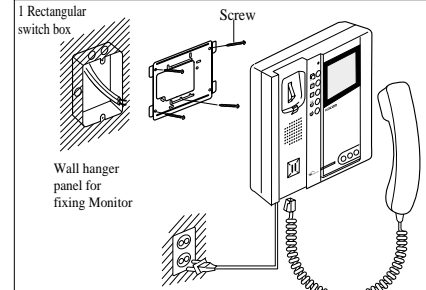


Monitor Installation

Basic Installation method of Monitor



When system is attached to 1 rectangular switch box



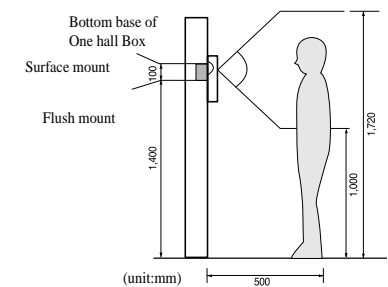
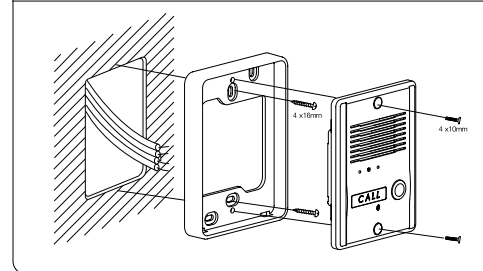
■ Standard height monitor

- 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

Straight Ahead 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

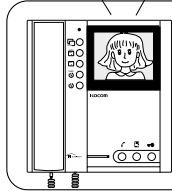
- Standard height of the door camera is 1,400mm ~ 1,450mm from the bottom of one camera to the floor.
- In case that the height of Door camera exceeds the range of min. 1,250mm ~ 1,550mm, it is impossible to control the screen picture with only the lens angle, and therefore, be careful of the height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

How to operate (Instruction for operating)

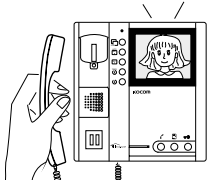
■ Identifying and talking to visitors



When visitor presses the call button of door camera.



1. Call signal rings from the monitor, while screen is turned on and visitor is appeared automatically.

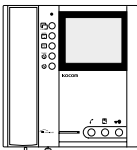


2-1 Hold handset and identify visitor.

Then, communicate with visitor. And, unless you replace handset within 3 minutes, the monitor screen is turned off automatically.

2-2 When the handset is held on and the call is made from the camera, press button on the monitor. Then communicate with visitor.

2-3 While communicating with camera, if the internal call is made from the extended monitor or doorphone, the beep signal sounds in 5 sec. and disconnected with the camera automatically. Then you can communicate with extended monitor or doorphone after pressing button on the monitor.



3. After communication replace handset. However, if conversation continue more than 3 minutes, monitor screen is turned off automatically. And if you want to communicate more time, press button again.

■ Manual Record & Auto Record

1. **Manual Record** : Please choose monitor image as pushing "Camera 1" or "Camera 2" button. And then the image will be recorded when you push "REC" button.

2. **Auto Record** : If you push "AUTO-REC" button, the green LED lamp will turn on and the images will be recorded with blinking red color LED automatically when push camera's call button. (Auto-recording. is not available within 30 seconds after recorded)

■ Play Recorded Image

If you push "Play" button , you can find one cut image with time in order from the latest images.

It's not available with auto re-play for all images by one touch.

※ In the case of full recorded images, it will be removed from the oldest image in order.

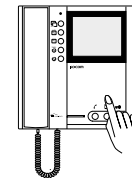
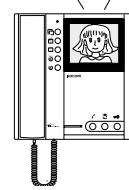
■ Time Setting

1. Turn on the monitor's screen as pushing camera 1 or camera 2 button
2. Press "Time Mode" (for 2 seconds), then appears "Time Mode" at the center of monitor's screen and "Minute" is on the blink.
3. Change the number as pushing "Time set" button & Select wanted number with "Time Mode" button. As like above method, set time & date continuously (minutes -> time -> date -> month -> year).
4. "REC" button : Down-Count, "Time set" button : Up-Count

■ Opening front door automatically

After communication with visitor, press door key button. Then, the door is opened automatically.

■ Checking out door side - Don't need to hold handset



1. If press button on the monitor, screen is turned on automatically. And, you can check out door side.
2. After checking, screen is turned off as pressing button again.
3. After internal call is made, the monitoring is not available for 60 sec.
4. Monitoring when 2 cameras are connected.

-Using handset

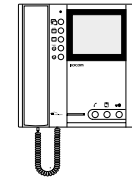
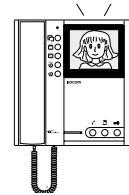
If the handset is picked up, press button shortly in order to change the camera.

-Without using handset

Camera 1 selection : press button shortly

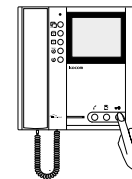
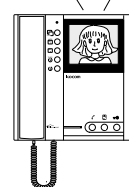
Camera 2 selection : press button a little longer, till screen is on.

■ Identifying visitors



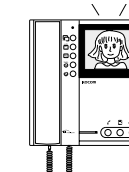
1. If press call button on the door camera, the screen is turned on automatically. And, you can check out door side.
2. At this time, you can easily identify visitors without lifting handset. (After 60sec., Monitor screen is turned off automatically)

■ Opening door automatically (Regardless of handset status)



1. For this purpose, automatic AC doorlock should be first installed on the door and then connected with video doorphone
2. After communication with visitor, press button, and the door is automatically opened

■ Internal call and intercom function



Hold on handset and press button on the monitor. Then the call signal sounds from the extended monitor or doorphone. And if it is answered from the extended monitor or doorphone you can communicate. In case the handset of the extended monitor is held on, and button on the extended monitor is pressed, you can communicate.

During internal communication, if the call is made from the camera, the beep signal sounds in a sec. and the call signal from the camera sounds.

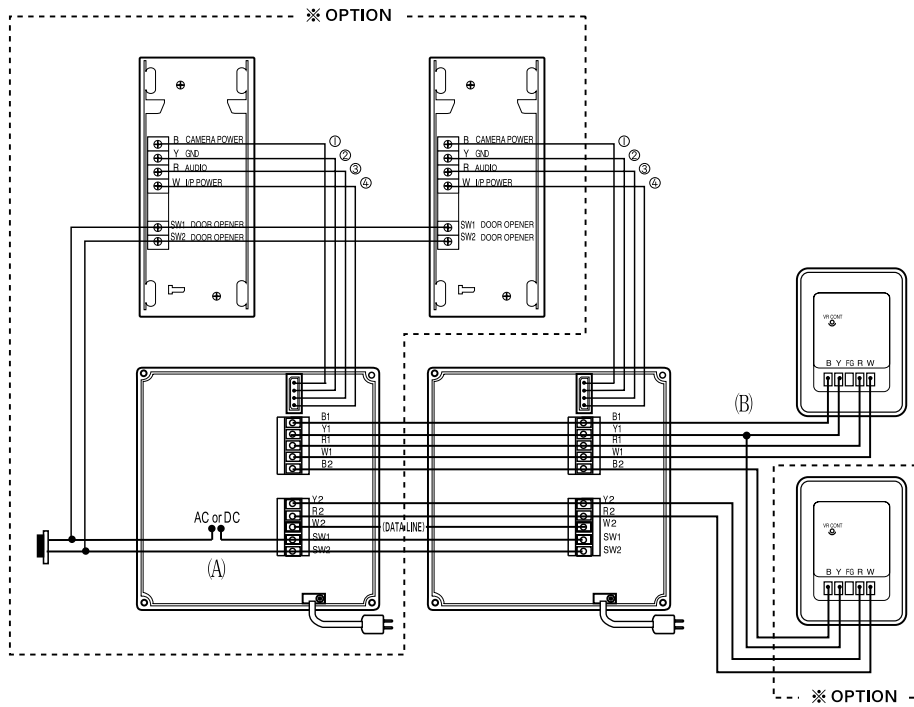
At same time the monitor is disconnected automatically with extended monitor or doorphone

Then if you press button on the monitor, you can talk with visitor

※ Caution

When additional monitor and door phone are connected to the monitor. as doorphone has no security function, the conversation between 2 monitors can be heard from the extended doorphone without notice.

Video Doorphone Wiring Diagram 1



- In case, 2 camera are used, terminal GND(Y) of each camera should be connected to the terminal Y1 of the first monitor.
- For the dotted line (A) in TIV 1.6 must be used
- For the dotted line in TIV 0.65 must be (B) used. (Max. cable distance 50m)

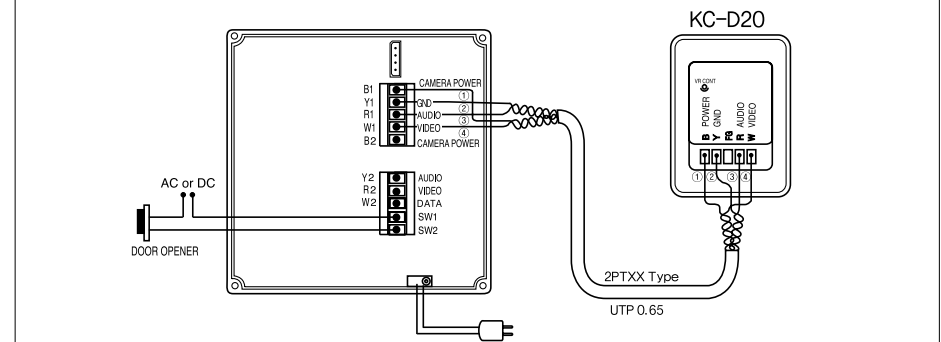
Transmission	4-wired Wiring
Cable Distance	TIV0.5 φ : Max. 20m
	TIV0.6 φ : Max. 30m
	TIV0.65 φ : Max. 50m
	Coaxial cable : Max. 100m



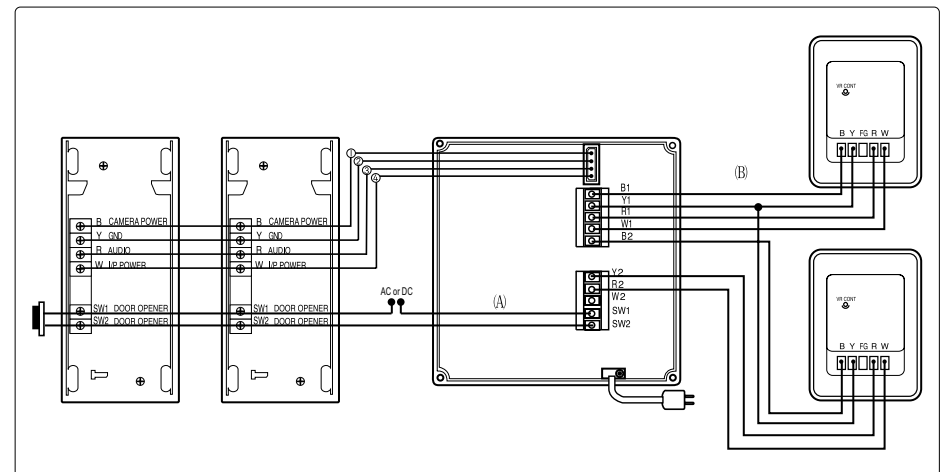
Caution for wiring

- Available video doorphone wiring with TIV 0.65mm is less than 50m in length.
 - Connecting wiring between monitor and door camera should not be installed near other electrical cable, nor be horizontal.
- (In such case, clear picture can not be expected due to interruption by electrical noise)

Video Doorphone Wiring Diagram 2



In case of UPT cable wiring, please refer to the wiring and this wiring is recommended. please avoid wiring R(audio)and W(video) in a twisted cable.



- For the dotted line (A) in TIV 1.6 must be used
- For the dotted line in TIV 0.65 must be (B) used. (Max. cable distance 50m)

Transmission	4-wired Wiring
Cable Distance	TIV0.5 φ : Max. 20m
	TIV0.6 φ : Max. 30m
	TIV0.65 φ : Max. 50m
	Coaxial cable : Max. 100m