# KOCOM

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KCV-464(D1)/D464(D1)/D464V(D1) MANUAL

[4.3" Digital Color LCD Videophone]

COLOR HANDSET
Ultra Slim Design Video Phone
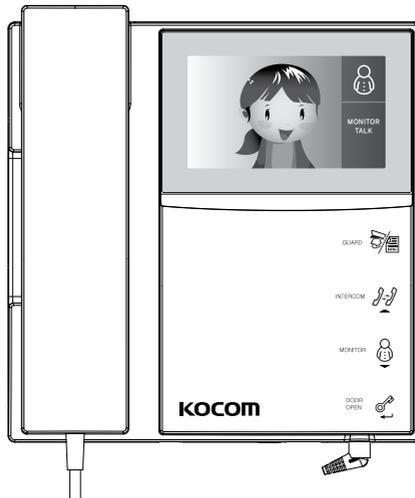
- 4.3inch Color Digital LCD Screen
- Call & Communication with a Visitor
- Expandable up to 2 Door Cameras
  and 4 Indoor Units : Monitor with Sub-interphone(KIP-32G)
- 2 Video Outputs for CCTV Camera Connection
- Internal Communication between indoor units

- Video and Audio Monitoring of the door camera/s
- Operating Condition Display with Icons (OSD)
- Touch Buttons for Control
- Door Open
- Multifamily, Apartment Application (*SYSTEM Mode)

KOCOM CO.,LTD.

Cautions for safety

For safe use, please stick to the following cautions.

· Pleasedo not dispose this manual after reading the instructions carefully.   · Please read all instructions to set up rightly.
· This Cautions for Safety may include items that are not contained in specifications of the product that consumer purchases.
· If you need assistance with the set-up or operation, please contact with A/S center.

The important marks in the manual.

To help our customers to understand this manual, to prevent any personal injury or property damage, some marks are used in the manual.
The marks and the drawing signs are below. Please, understand the marks before reading the manual.

The meaning of the drawing signs.

⊘	Sign to show what not to do.	⚠	Mishandling the device with ignoring this sign may result in serious injury or death.

⚠	Mishandling the device with ignoring this sign may result physical injury or material damage.

❗	Sign to tell you that you should follow the instructions.	🔌	Sign to tell you that you must unplug the unit.

⊘	Sign to tell you that you can't disassemble this unit.
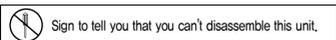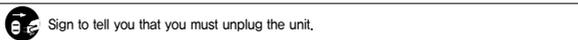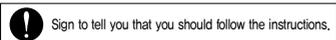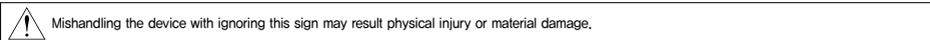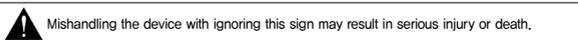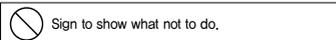
⚠ Caution

◉ Cautions for set-up

⊘
· The law limits distributing the power wire to an authorized person from government.
  The work from an unaurhtorized person cause fire or electric shock.
· Place this unit securely on a stable surface. Serious damafe and/or injury may result if the unit falls.
· Do not set up this unit near the leaking place because it may expose you to dangerous voltages or other risks.
· Even if your product is water proof, do not install it slanted place of water leakage, which can a short circuit.
· Fix the product on the wall safely according to the installation guideline to prevent any damage or injury.

⚠
· The work of distributing wires needs skills and experiences. So please, for assistance, contact your dealer or call service center.
· The communication wire should be built in being distant from the power source.
  This may result in the risk of fire, electric shock and communication disorder.
· Setting the communication wire in a high humid place such as outside without any protection from rain causes the communication disorder.
· Keep the hook at the wall-mounted device safe. The hook may cause the physical injury.
· Think about the thickness and quality of wall material. The unqualified material may make the device fall.

❗ · Set the device of the wall-mounted type not to fall. Falling from an earthquake causes personal injury.

◉ Cautions for Repairs and Maintenance

⚠
· Keep the inside of the device clean. Having the dust inside without any cleaning for a long time causes the fire.
  If necessary, contact your dealer or service center to get cleaning service.

🔌
· Unplug this device when you want to check the inside. If there is no plug, please, turn off the circuit breaker.
· Unplug this device when you try to move it to another place.
  If the electric line is connected inside of the unit, please contact your dealer or service center.

⊘ · Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

⚠ Warning

◉ Warnings for Usage

⊘
· Do not install this unit near the water and dust, for example, in a bathroom or near the washing machine. It caused fire and electric shock.
· Do not install this unit near the fire, for example, near kitchen sink, heater or the like.
· Do not install near the noxious gar such as Hydrogen Sulfide, metal power and the like.
· Do not install near the water and chemicals.
· Do not give any damage, break and modify the plug. Overloading, heating, pulling causes the damage.
· Do not place the plug near the heater. The damaged code causes fire and electric shock. Do not pull the power code when unplugging.
· The damaged code causes fire and electric shock. Must pull with plug. Do not touch with wet hands. It causes the electric shock.
· Do not use any other voltage, except the marked regular voltage.
· Do not use the power terminal at the units to other electric device except the designed device.
· Do not install the units at the leaking place if it doesn't have any waterproof mark. Do not install the unit when the power is on.
· Install the circuit breaker after checking the safety such as electric shock and leakage. Turn off the power before you install or A/S

❗
· Check the suitability of the wire for installing when you use the exiting wire.
· Do the wiring work by using the designed material.
· Connect the electric wire with the designed ways and ground.
· Do not connect with any other devices except the designed devices to compose the system.

🔌 · Unplug electric wire and communication wire from the units before relocate the product.

◉ Cautions for Use

· This unit is not designed for security purpose.   · Do not handle the unit with the wet hands.
· Do not place a pot with water or a small metal material on the Units.
· Do not cover the ventilating opening or put any metal material in the units.
· During thunderstorms, avoid using this unit. There may be a remote risk of an electric shock from lighting.
· Do not modify the unit.   · Open the main gate after checking ID if the image and sound system do not work. Call A/S

· Do not disassemble the back and cabinet cover.

◉ Cautions for Abnormality

· Change the damaged electric code.
· Unplug this unit from plug socket and refer servicing to an authorized service center when the following conditions occur:
· If liquid has been spilled into the unit.   · If the unit does not work normally by following the operating instructions.
· If the unit exhibits a distinct change in performance.   · If the unit has been dropped or physically damaged.

Caution

◉ Safety Instructions, Warnings and Cautions of Each System

· Do not disassemble this unit at will as this device is composed by precision parts.   · Install the unit by following the set-up instructions of Kocom.
· Do not touch or insert any foreign substances, for example, sticker, magnetic, opener and the like.
· Make U-type at the end of wires as the rain can effect on the system by following the wires during the rainy season.

◉ Videophone

· Separate the AC/DC wire with the hook of the wall-mounted type when installing.   · Connect the wire after peeling the wires properly.
· Do not distribute signal line with AC line.   · Use the designed driver to connect the wire to terminal.
· Do not clean the LCD with the damp cloth for cleaning. Use the only dry and soft cloth.   · Do not install the main gate monitor at the leaking place.

◉ Things You Need to Know

· This product is designed as a home videophone and cannot use continuously like monitor camera.
· If there is temperature difference between inner part of camera and surrounding, dew condensation occurs on camera lens and may disturb image.
  If dew condensation is removed from camera lens, image quality recovers.
· White LED light examination range is narrower than camera shot range at night, so there is less amount of light at night than day.
  So it is difficult to see the face in low illumination condition due to noise increase on screen, but it is not from defect.
· Monitor screen (liquid crystal panel) is not in defect when some pixels always light or black out.
· Please install monitor and camera over 5cm away.
  Also, avoid installing at a place with too much noise, because too much noise around camera causes phone call inferiority.
· Do not place an object within 20cm in front of monitor. It causes phone call inferiority, especially because microphone is installed at the top of monitor.
· If strong light such as sunlight flows into camera module, screen saturation (or strange mark) and image shaking might occur.
· This is not a defect, so please do not install camera where a direct ray of light do not flow if possible.

◉ Cautions

· In some cases there is occurrence of product destruction, malfunction, noise mixing and picture quality deterioration due to mixing of other tool's
  induced. voltage or thunder with communication wiring of monitor/camera, monitor/extended monitor.
  Do not wire with power line such as outdoor wiring or AC power, or phones and other tools.
· You cannot use it if you incorrectly wire the AC voltage between monitor/camera, monitor/extended monitor.
  Call the store or agency where you purchased this product and consult to solve the problem.
  Beware that unfixable damage might be caused due to authorizing AC voltage on communication wiring of monitor/camera, monitor/extended monitor.
· Do not ever disjoint this product. It may cause electrocution accident when touching high-voltage circuit inside this product.
· Outside power authorizing this product must be confirmed of product description and use rated voltage.
  Beware that if higher voltage is authorized, unfixable damage might be caused due to product destruction.
· Power must be connected to domestic voltage (product rated voltage) consent or interior wiring.
  If connected to other motive power or inverter-type power, product destruction, noise mixing, and picture distortion may occur.
· Do not drop this product. Glass is used for monitor and might break, or cause other circuit inferiority.
  In such case, immediately turn down the power switch, and call to consult agency or store in which this product was purchased.
· Keep away from any conditions where water splatters or falls. Do not place anything containing water like a vase on the product.
· If you install a product nearby an antenna used for broadcast media, image could be distorted or mixed with a voice so that it is likely not to work
  properly in some functions.
· Avoid installing near tools with strong electromagnetic waves such as microwaves and cell phones, as it may cause a picture distorted or a voice with
  a noise. In that case, the product is likely not to work properly in some functions.
· Do not install monitor in following places.
  ① Above or around water heater, rice-cooker, heater   ② Place exposed to direct rays of the sun
  ③ Place with temperature below 0℃ such as cold store   ④ Place with high humidity such as bathroom, washroom, heated room
  ⑤ Place with a lot of gas, dust, smoke   ⑥ Dangerous place with sprays of water or chemicals
· Do not wipe with insecticide, drugs or chemicals such as thinner and alcohol, or it may damage
  the surface of this product.
· Beware of occurrence of image quality deterioration or malfunction from cause of humidity due to
  penetration of chemicals or water into camera's urea resins.
· As in the picture, it prevents temperature difference of camera (outside) and monitor (inside), and
  removes dew condensation caused by humidity of camera window.
· Camera must be installed when wall cement is completely dry.
· When product is installed in winter below −5℃, wait for approximately 2 hours to connect. Dew formation
  in monitor and camera due to temperature difference inside and outside may cause product defect.
· Avoid installing monitor and camera in place directly exposed to heat or where gas noxiousness is highly occurring.


Camera
(Outdoor, Door)
Tubing Box   Monitor
Pipe
Stop up P.V.C pipe using
adiabatic substances, to
prevent air circulation
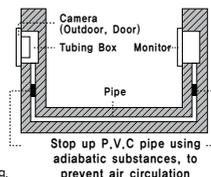
Installation location

■ Monitor installation location
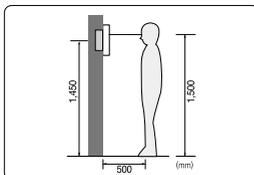
· Recommended installation height is about 1,500mm where screen center is at eye level. In this case, wall−hanging metal center (center of piping) is 1,450mm above ground level.

■ Camera installation location
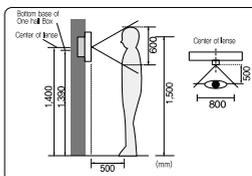
· Recommended installation height of door camera is where lens is about 1,400mm above the floor. In this case, camera stack center (Buried box) is above 1,390mm above ground level.

■ Caution of camera installation
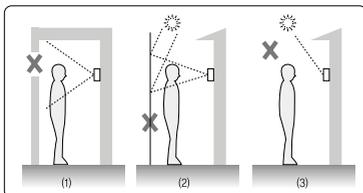
· Avoid installing camera exposed to direct sunlight or lights.
· Back light or shadow on visitor's face may occur difficult recognition.
· Avoid installing camera in places such as the following picture.
(1) Place illuminating sky as background
(2) Place with white wall reflecting direct ray of light
(3) Place with direct ray of light

■ Monitor installation
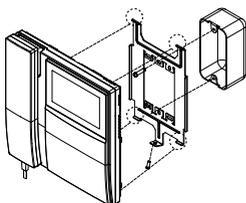
■Directly connecting cut−off power cord with power wire
1) Personal electrical work must be avoided. Please find local installer or electrician for installation.
2) power cords must be insulated with insulation tape after the work.
   [Exposed wires may cause fire or electric shock.]
3) Highly recommend to cut main power supply off before electrical work.

1) Remove metal wall hanger bracket behind monitor.
2) Install metal wall hanger bracket on 1 type box or wall with attached screw.
3) Connect wiring to monitor back terminal referring to product connection diagram.
4) Hang monitor on metal wall hanger bracket, and fix monitor on metal wall hanger bracket using attached screw.
5) Test the product status if the monitor is both plugged in and switched on.

■Door camera installation

KC−Q81P(D1)

KC−MC24(D1)
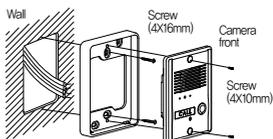
KC−MC20(D1)

Surface mount type
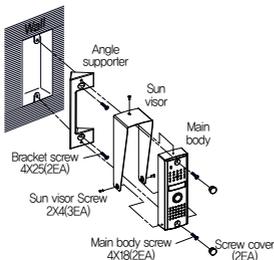
Flush mount type
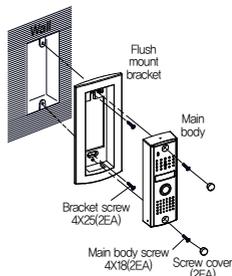
※When using angle Supporter, if Main Body Screw(4X18) does not fit, please use Spare Screw(4X20)

※ After fix the rear bracket with 4 screw, put the Door Camera into the grooves of rear bracket, and then fix it with hexagon screws and stick the finishing materials.

4

## Components of product

■ Monitor   **■ Wall hanger**   **■ Wire**

4Pin cable camera x 2ea   4Pin cable interphone x 1ea

■ Screws

3Pin cable CCTV x 1ea   2Pin cable data x 1ea for ex_monitor

4X25mm 4ea

3X8mm 1ea

DC 13.6V Adapter (KCV−D464)
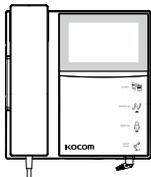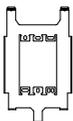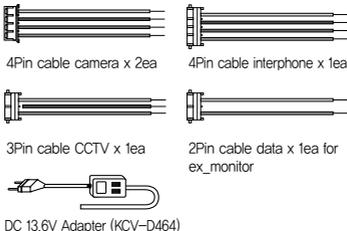
■ Door Camera

[KC−MC24(D1)]
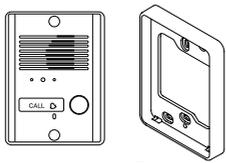
Bracket

Screws for fixing camera main body supporter
4X10mm

Screw for fixing camera
4X16mm

Finishing rubber

[KC−Q81P(D1)]

Finishing rubber

Screws for fixing camera main body supporter
4X10mm

Bracket

[KC−MC20(D1)]
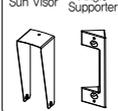
Sun Visor   Angle Supporter   Flush Mount Bracket   or
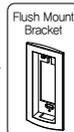
Screws Cover (2EA)

Sun Visor Screw (2X4mm 3EA)

Bracket Screw (4X25mm 2EA)

Main Body Screw (4X18mm 2EA)

※ In case of Surface mount type, 'Sun Visor' and 'Angle Supporter' are packed together with the 'product.'. Flush mount type includes 'flush mount bracket.'

Specifications

	Model No.	KCV−464(D1)	KCV−D464(D1)	KCV−D464V(D1)
Monitor	Power Source	100~240V~, 50/60Hz	DC 13.6V−2A Adaptor(CE)	DC15V−2A Adaptor(UL)
	Power Consumption	1W(±20%)(Stand by), 8W(±20%)(In load)	1.2W(±20%)(Stand by), 8W(±20%)(In load)	
	Operating Temperature	0℃ ~ +40℃		
	LCD	4.3 Inch color LCD		
	Communication Type	Handset Type		
	Wiring	Door camera : Polarized 4 wire Interphone : Polarized 4 wire Ex_Monitor data : Polarized 2 wire CCTV : Polarized 2 wire		
	Mount Type	Surface mount		
	Dimension(mm)	193(W) x 195(H) x 29(D)		
	Model No.	KC−Q81P(D1)	KC−MC24(D1)	KC−MC20(D1)
Door Camera	Resolution	0.41M	0.41M	0.41M
	Power Source	DC 12±1V(Power from Monitor)		
	Power Consumption	Max. 3W		
	Operating temperature	−10℃ ~ +50℃		
	Dimension(mm)	75(W) x 136.5(H) x 18.5(D)	96(W) x 127(H) x 32(D)	40(W) x 120(H) x 22(D)
	Viewing angle	Diagonal 90°		
	Adjusting Angle	No		

※ Door Camera Wiring : Polarzied 4 wire(VCC[12V] / GND / AUDIO / VIDEO) . ※ Recommend adaptor : CT−140200 (13.6) / JPW123ka1502N05(15V)
※ Kocom doesn't have responsible of non verified power supply.
※ KCV−464(D1), KCV−D464(D1), KCV−464V(D1) MONITOR IS ONLY COMPATIBLE WITH OUTDOOR CAMERA KC−XXX(D1)
 "BE ADVISED THAT MONITOR MODEL THAT INDICATES (D1), IS ONLY COMPATIBLE WITH OUTDOOR CAMERA MODEL ENDS WITH (D1)"

Name and Functions of each part

■ Monitor part
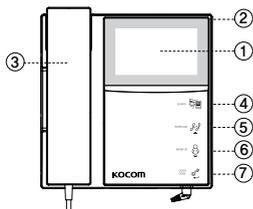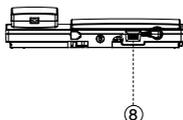
· Front   · Bottom   · Back
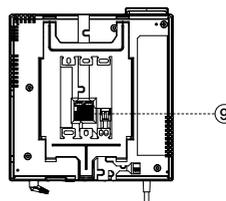
① LCD Monitor
② Speaker
③ Handset
④ Menu/Guard button : Browse menu, calls guard station.
⑤ Intercom button : Calls connected interphones.
⑥ Camera button : Camera monitoring (max. 4 cameras)
⑦ Door open Button : during monitoring only.

⑧ Ring/Call Volume level switch : 3 levels
⑨ Terminal : Ports for door camera, CCTV, interphone, EX_monitor

■ Camera part

· Front

KC-Q81P(D1)   KC-MC20(D1)
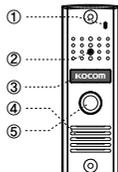
KC-MC24(D1)
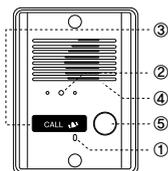
① C-Mic : To communicate with Monitor
② Camera Lens
③ LED
④ Speaker
⑤ Call Button : Calls resident

· Back

KC-Q81P(D1)   KC-MC20(D1)

①②③④ ⑤⑥⑥'

FG
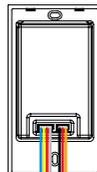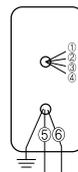
KC-MC24(D1)
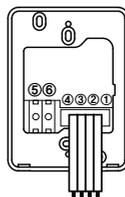
① VCC
② GND
③ Audio
④ Video
⑤,⑥,⑥'Door(Non-polarity)
(⑤: COM, ⑥: NO, ⑥' : NC)

Product Wiring diagram

■Camera mode diagram

※To use 'internal communication' funtion between indoor units, the first door camera must be connected to CAM1 port of the monitor.
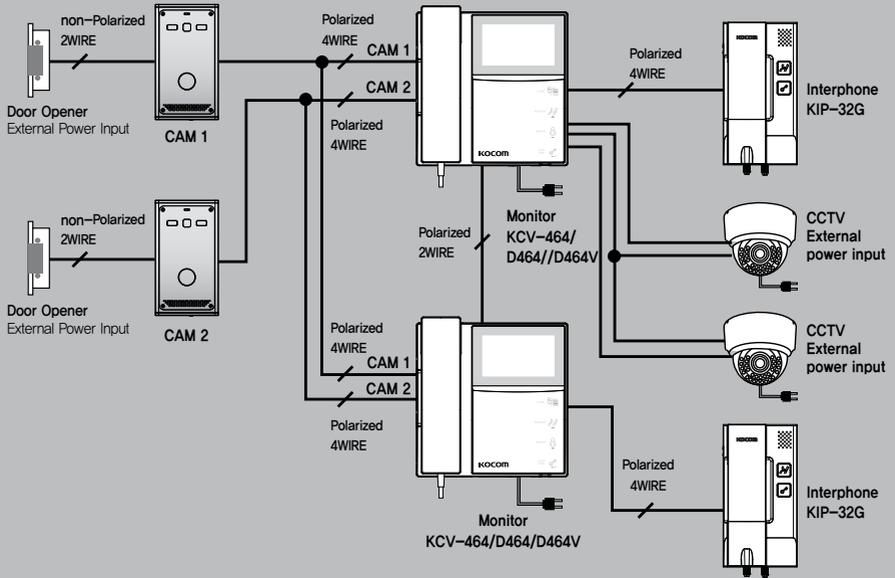
■System mode diagram

※KLP-420 SYSTEM must be connected to CAM2 port of the monitor.
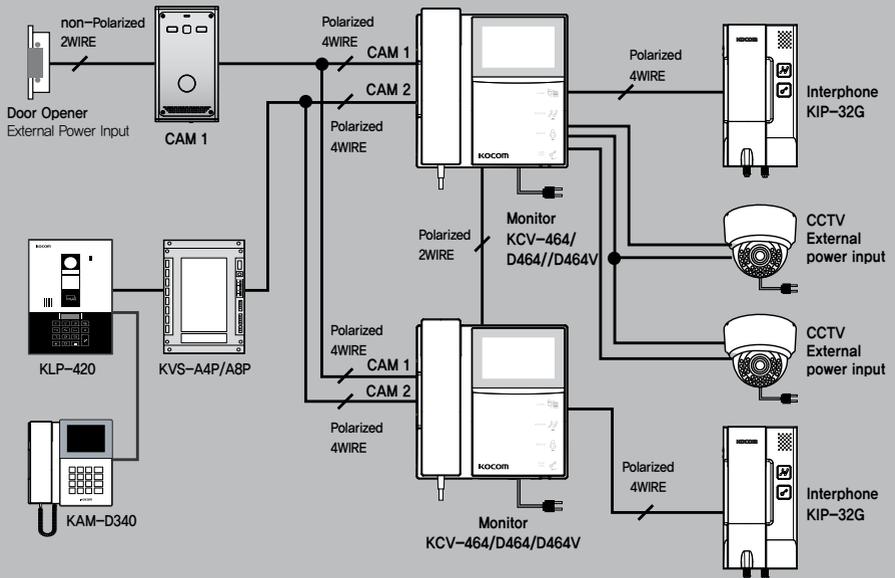
Product wiring diagram

■ Terminal

A. CAMERA 1
① VCC
② GND
③ AUDIO
④ VIDEO

B. CAMERA 2
① VCC
② GND
③ AUDIO
④ VIDEO

D. FIRMWARE UPGRADE

E. DATA
① DATA
② GND

A B C

① ① ①
④ ④ ④

D E

① ①
③ ②

F G

① ①
②
③

C. INTERPHONE
① VCC
② GND
③ AUDIO
④ SIGNAL

F. CCTV
① CCTV 1 VIDEO
② GND (Common)
③ CCTV2 VIDEO

※ Option

G. DOOR OPENER(DC)
① LINE 1
② LINE 2
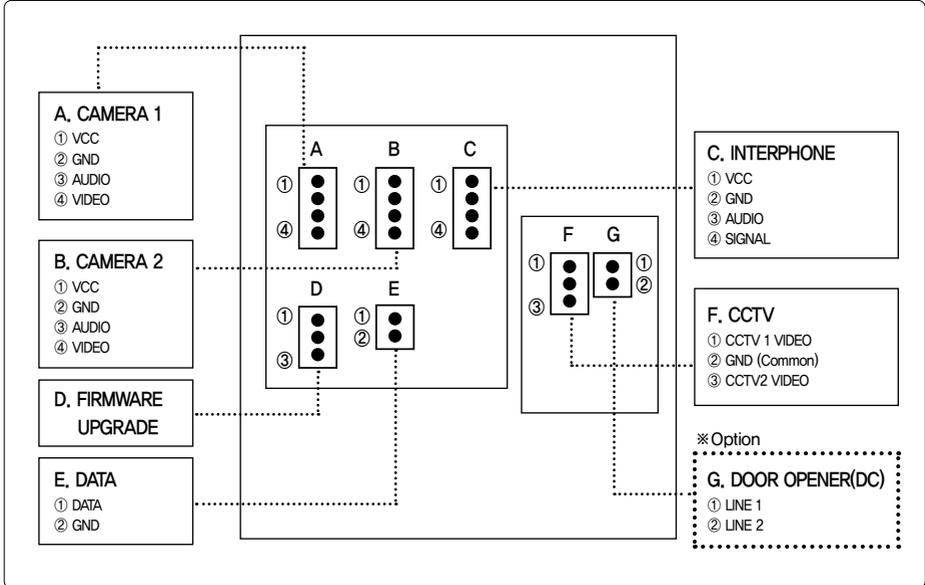
■ Cable requirement – Based on distance from a camera to the monitor

– Upto 100M : CAT5 cable

Orange W/Orange	① VCC 1 line (2 wire)
Green W/Green	② GND 1 line (2 wire)
Blue W/Blue	③ Audio 1 line (2 wire)
Brown W/Brown	④ Video 1 line (2 wire)
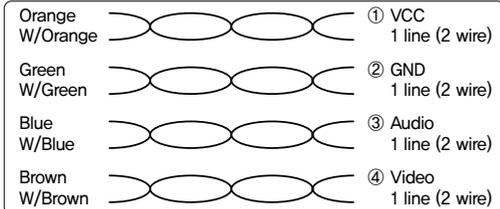
※ CAT5 wire configuration
※ More than 50 meters of distance may cause quality failure. Recommended wire specification as follow;
– Upto 50m : TIV 0.65㎟ cable
– Upto 100m : Over TIV 0.8㎟ cable
– Upto 150m : TIV 0.8㎟ cable + RG–59 / U RG–59 / U (Coaxial cable) for Video signal (Connect core to Video & shield to GND)

※ Apart from product malfunction, installed environment may cause failure of video quality. Optimal distance from camera to monitor is about 50 meters.

# Instructions for operation

■ Communication from door camera

Press the call button to make a call
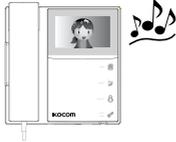
Identify the visitor from monitor. (Standby time: 30sec)
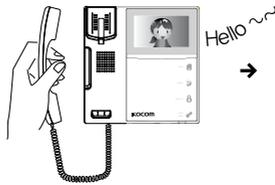
Pick up the handset to begin communication. (Communication time: 3 minutes)

Hang up to end communication. Pressing [🔑] Button to open door and ends communication within 5 seconds. (Door open available during call only.)

■ Monitoring Door camera/CCTV
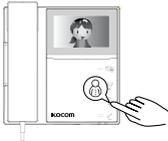
Press [👤] button once to monitor CAMERA 1 (Monitoring time : 1~10 minutes)
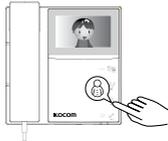
Press [👤] button twice to monitor CAMERA 2 (To monitor CCTV, press [👤] button thrice)

Press [👤] button to end monitoring

※ To start conversation, pick up the handset while monitoring.
※ If CCTV camera/s are connected, they must set 'ON' on the menu for monitoring.

■ Door Open
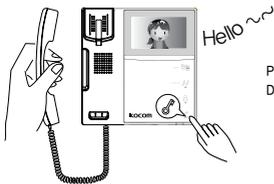
Press [🔑] button to open door while communication.. Door Open Time can be set from 0.1 sec ~ 10 sec.

Instructions for operation

■ Internal call
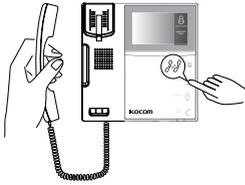
Press [🎵] to ring
internal devices when stand by.
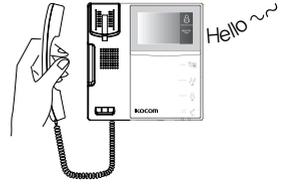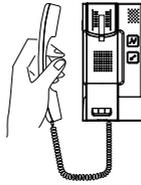
Pick up handset to make a call
(Communication time : 3 minutes)

Hello ~~

■ Call Guard Master on SYSTEM mode
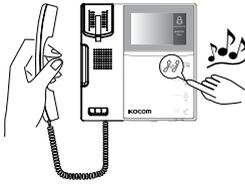
Pick up a handset,
press the guard button [🔔]

Picking up from guard station
begins communication
(Communication time : 3 minutes)

Hang up to end communication.

Hello ~~
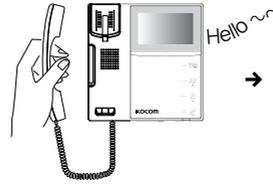
※ For this function, menu '2.CAMERA' must be set as 'SYSTEM' (Guard Station KAM-D340, Lobbyphone KLP-C420(R)
and repeater KVS-A4P/A8P required)

Menu Setup

■ Adjusting Ring/Call sound

Call Vol   Volume adjustment : Call Vol. offers 3 level(High/Mid/Low).

■ Adjusting brightness

‒ Confirm with [🖉] button, adjust brightness pressing [🕗/🗐](UP), [🔒](DOWN). Press [🕗/🗐] button during call to enter adjust brightness menu. (10 levels)

■ Setting menu

※To enter into SETUP MENU, turn on the power and press ' 🕗/🗐 ' in 1 minute.

(if it is impossible to turn the power off and on, to enter into SETUP MENU while using, press ' 🕗/🗐 ' once and press the button once again for more than 3 second.)

[SETUP MENU]
1. CAMERA 1 : CAMERA
2. CAMERA 2 : CAMERA
3. CCTV 1   : OFF
4. CCTV 2   : OFF
5. OPEN TIME : 1 SEC
6. VIEW TIME : 1 MINUTE
7. NTSC, PAL : AUTO
8. MELODY   : ON
9. LANGUAGE : ENGLISH
10. DEFAULT

🕗/🗐 [GUARD/MENU] Button

♪♫ Up : [Interphone/LOBBY] Button

🔒 Down : [DOOR] Button

🖉 ENTER : [DOOR OPEN] Button

1. CAMERA 1 : CAMERA / NONE
2. CAMERA 2: Select operating mode.
   ‒ CAMERA : normal camera mode
   ‒ SYSTEM : system mode (420 system)
   ‒ SOLO CAM : ✳refer to below information
   ‒ NONE : Doesn't detect any camera
3. CCTV 1 : Turn ON/OFF to activate CCTV monitoring
4. CCTV 2 : Turn ON/OFF to activate CCTV monitoring
5. OPEN TIME: Adjusts door release time (0.1~)/0.5~10 SEC)
6. VIEW TIME: Adjusts camera monitoring time (1~10 minutes)
7. NTSC, PAL: AUTO / NTSC / PAL
8. MELODY : ON(normal) / OFF(mute)
   ‒ Indicated on screen, [♪] for normal, [♩] when mute set.
9. LANGUAGE : Set language (ENGLISH, RUSSIAN, SPANISH)
10. DEFAULT : Reset to default

※ Note that the button of UP, DOWN, and ENTER works only in MENU setting
※ CCTV must be connected before activate CCTV monitoring.
※ No ring sound with melody OFF setting.

✸SOLO CAM: When using 2 monitors, set 'CAMERA 2' as 'SOLO CAM' and then the camera works only with the monitor connected. ('SOLO CAM' function is available only in camera 1 port.)

Warranty

◉ To receive after service, have the following ready before 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	KCV−464(D1)/D464(D1)/D464V(D1)
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.

KCV−464(D1)/D464(D1)/D464V(D1)
W0207