JK-1HD
HANDS FREE COLOR VIDEO INTERCOM
SUB MONITOR STATION
INTERPHONE VIDEO COULEUR MAINS LIBRES
MONITEUR SECONDAIRE
VIDEO INTERCOMUNICADOR A COLOR MANOS LIBRES
MONITOR SECUNDARIO
HANDENVRIJE KLEURENVIDEOFONIE
MONITOR-BIJPOST
VIDEOCITOFONO A COLORI A VIVAVOCE
POSTAZIONE DI MONITORAGGIO SECONDARIA

JK-1HD
Sub monitor station
Moniteur secondaire
Monitor secundario
Monitor-bijpost
Postazione di monitoraggio secondaria

INSTALLATION & OPERATION MANUAL
MANUEL D’INSTALLATION ET D’UTILISATION
MANUAL DE INSTALACIÓN Y OPERACIÓN
INSTALLATIE- EN BEDIENINGSHANDLEIDING
MANUALE D’INSTALLAZIONE E USO
1. **WARNING**

(Negligence could result in death or serious injury.)

- Do not install or make any wire terminations while power supply is plugged in. It can cause electrical shock or damage to the unit.
- Do not dismantle or alter the unit. Fire or electric shock could result.
- Do not connect a non-specified power source to the +, - terminals. Also, do not install two power supplies in parallel to a single input. Fire or damage to the unit could result.
- Keep the unit away from water or any other liquid. Fire or electric shock could result.
- Do not put any metal or flammable material into the unit through the openings. Fire or electric shock could result.
- Do not use a power supply with a voltage other than the specified voltage. Fire or electric shock could result.
- Do not connect any terminal on the unit to an AC power line. Fire or electric shock could result.

2. **CAUTION**

(Negligence could result in injury to people or damage to property.)

- Do not install or make any wire terminations while power supply is plugged in. It can cause electrical shock or damage to the unit.
- Before turning on power, make sure wires are not crossed or shorted. If not, fire or electric shock could result.
- When mounting the unit on a wall, install the unit in a convenient location, but not where it could be jarred or bumped. Injury could result.
- For power supply, use Aiphone power supply model or model specified for use with system. If non-specified product is used, fire or malfunction could result.
- Do not install the unit in any of the following locations. Fire, electric shock, or unit trouble could result.
  - Places subject to moisture and humidity extremes, such as bathroom, cellar, greenhouse, etc.
  - Places subject to dust, oil, chemicals, etc.
  - Places subject to temperature variations, such as in a refrigerated area or in front of an air-conditioner.
  - Places subject to moisture and humidity extremes, such as bathroom, cellar, greenhouse, etc.
  - Places subject to temperature variations, such as in a refrigerated area or in front of an air-conditioner.
  - Places subject to moisture and humidity extremes, such as bathroom, cellar, greenhouse, etc.
  - Places subject to moisture and humidity extremes, such as bathroom, cellar, greenhouse, etc.
  - Places subject to moisture and humidity extremes, such as bathroom, cellar, greenhouse, etc.
- Do not put anything on the unit or cover the unit with cloth, etc. Fire or unit trouble could result.
- Do not press on the LCD or subject it to a high impact. The LCD glass could be punctured and result in an injury.
- If the LCD is punctured, do not allow contact with the liquid crystal inside. Inflammation could result.
- In the event that liquid crystal is ingested, immediately gargle with water and seek medical attention.
- If contact with the eyes or skin occurs, clean with pure water for at least 15 minutes and seek medical attention.

## General Precautions

1. Keep the unit more than 1 m away from radio or TV set.
2. This unit is for indoor use only. Do not use outdoors.
3. In areas where broadcasting station antennas are close by, the intercom system may be affected by radio frequency interference.
4. As to other manufacturer’s devices (such as sensor, detectors, door releases) used with this system, comply with the Specifications and Warranty conditions that the manufacturers or vendors present.
5. Keep the intercom wires at least 30 cm (12") away from AC 100-240 V lines. Noise and malfunction could result.
6. If the unit is down or does not operate properly, unplug the power supply or turn off the JK-1MED, JK-1MD, and JK-1HD POWER switches.
7. The unit is for wall-mount use only. For desktop applications, use desk stand.
8. When wall-mounted, the top of the unit may darken. This does not indicate a malfunction.
9. The unit case may become warm with use, but this is not a unit malfunction.
10. If a cellular phone is used close by, the unit may malfunction.
11. The LCD panel is manufactured with very high precision techniques. Small portions of the panel may fail to light up or some portions may be constantly lit, but this does not indicate a unit malfunction. Please be aware of this in advance.
12. refrain from using the color monitor station in sunlit areas.
13. At night, due to reduced lighting on the object, the monitor sees more noise and the face becomes more difficult to see, but this is not a malfunction.
14. Talk within 50 cm (20") or less from the unit. If you stand too far away, it may be difficult for the other person to hear the communication.
15. If there are loud noises around the unit (such as music playing or children crying), the sound may break up and be difficult to hear.
16. During communication, if you speak before the other person has finished talking, your voice may not be heard. Communication will proceed smoothly if you wait until the other person has finished before speaking.
17. At a gate or porch illuminated by fluorescent lamp, the picture may vary, but this is not a malfunction.
18. When the outside temperature lowers sharply after rainfall, etc., the inside of the video door station may fog up slightly and cause the video image to be blurry, but this is not a malfunction. Normal operation will be restored when moisture evaporates.
19. Due to the environmental sound around the unit, it may hinder smooth communication, but this is not a malfunction.
20. The outline of video images displayed by video door station may differ from that of the actual person(s) or background, but this is not a malfunction.
21. If the screen of a video door station freezes during wintertime, the picture may become difficult to see or the CALL button may not move, but this is not a malfunction.
22. This unit is not interchangeable with JA, JF, KB, and KC series units.
23. Warm-color lighting shining on the door station may change the tint of the picture on the monitor.

## Package Contents

- **JK-1HD**
  - Mounting screws x 2
  - Wood mounting screws x 2

Installation & Operation manual
2 INSTALLATION

2-1 Mounting locations

1 Install the sub monitor station in a place where the screen is not exposed to direct sunlight.

2 The sub monitor station has switches on both sides. Allow at least 5 cm (2") of open space on either side.

3 Allow at least 15 cm (6") of vertical open space from the center of the mounting bracket in order to mount the sub monitor station.

2-2 Wiring method, wiring distance

Wire the units from station-to-station (daisy-chained).

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>JK-DV</td>
<td>JK-DA</td>
<td>PS-1820 PS-1802DIN</td>
<td></td>
</tr>
<tr>
<td>JK-1HD</td>
<td>JK-1MED/1MD</td>
<td>PS-1820DIN</td>
<td></td>
</tr>
<tr>
<td>IER-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Wiring distances**

<table>
<thead>
<tr>
<th>A</th>
<th>Ø 0.65 mm</th>
<th>Ø 1.0 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 m</td>
<td>22 AWG</td>
<td>100 m</td>
</tr>
<tr>
<td>5 m</td>
<td>165'</td>
<td>330'</td>
</tr>
<tr>
<td>10 m</td>
<td>18'</td>
<td>33'</td>
</tr>
<tr>
<td>75 m</td>
<td>245'</td>
<td>490'</td>
</tr>
<tr>
<td>150 m</td>
<td>490'</td>
<td></td>
</tr>
</tbody>
</table>

2-3 Cable

1 Use PVC-coated cable with PE (polyethylene) insulation.

2 Never use individual conductors, twisted pair cable or coaxial cable.

3 When using a cable with unused conductors, terminate both ends of the unused pair(s) with a 120 Ω resistor.
3 MOUNTING

Back wiring

1. Press RELEASE button (to insert or remove the wire).
2. Insert the cable into the terminal.

Mounting screws x 2

1-gang box

83.5 mm
(3-5/16”)

Mounting bracket

Surface wiring

* When a 1-gang box is not mounted, the cable can be surface-run to the top or bottom of the unit. Cut a cable inlet on the upper part of the unit to allow passage of the wiring into the unit.

Wood mounting screws x 2

83.5 mm
(3-5/16”)

Mounting bracket

* To pass the cable through the rear side of the unit, cut out a cable inlet section.

1-gang box

83.5 mm
(3-5/16”)

Mounting bracket
4 WIRING

Insert wires securely into each terminal as shown.

When the JK-1HD is connected, split power between the master station and the sub master station if radio signals are picked up during communication.

NP: Non-polarized
P: Polarized

(To optional units)
(AC/DC 24 V, 1.6 A N/O dry closure contact)
(Minimum Contact : 100 mV DC, 0.1 mA)
5 NAMES

JK-1HD

Color LCD video monitor
Microphone

Door release LED (red)
DOOR RELEASE button

ZOOM/WIDE button
ADJUST button
PAN/TILT button
CALL button
Option button (*)

Transmit LED (red)
TALK button
OFF button
MONITOR button

(*) The option button controls connected option units such as turning lighting on and off and activation of added door releases.

POWER switch

Speaker

Brightness control (0 ~ 10)
Receive volume control (0 ~ 10)
Chime tone volume (0 ~ 10)

JK-1HD_multi.indb   6
2008/12/11   22:52:03
6 OPERATIONS

6-1 Answering a door call (HANDS-FREE mode, PTT mode)

1. Press CALL button.

2. Chime tone sounds, caller is seen on video monitor, and outside sound is heard.
   - Audio and video turns off after approximately 45 seconds if not answered.

3. Press TALK button momentarily, and after the beep, communicate hands free. Transmit LED (red) lights when you talk, and goes off as you listen to caller (or hear outside sounds).

4. After finishing communication, press OFF button and communication will end after the beep.

NOTES:
1. Communication ends automatically after the times listed below.
   - JK-1MED: Time set at master station (approximately 1 min., 2 min., 3 min., 5 min.)
   - JK-1MD: Approximately 1 min.
2. The Transmit LED will light up and go out, but this is not a malfunction.
3. The screen display switches automatically according to the JK-1MED picture recording settings.
4. Even if the screen display changes, ZOOM/WIDE button (section 6-5) can be used to change the display.
5. When TALK button is pressed momentarily and communication starts, the screen display will be held as is regardless of the JK-1MED picture recording settings.

6-2 Activating door release

1. Press DOOR RELEASE button.

2. Open door while the release mechanism is activated. During release: The DOOR RELEASE LED (red) flashes.

NOTES: When press-to-talk mode is disabled by master monitor station, PTT mode cannot be used.
**6-3 Entrance monitoring**

1. Press MONITOR button in the standby mode.

2. The video monitor displays the image from the door station and the incoming audio is heard. If you do not press TALK button, the caller will not hear sounds from the inside station.

3. Press OFF button to end communication.

**NOTES:**
1. To talk to the entrance during entrance monitoring, momentarily press TALK button. Press OFF button to end communication.
2. The entrance monitoring turns off automatically after approximately 1 minute. To monitor the entrance again, repeat from the beginning.
3. During entrance monitoring, the entrance monitoring time can be extended by approximately 1 min. by pressing MONITOR button.
4. During entrance monitoring, the initial display uses a wide-angle picture.
5. At night, the Illuminator LED will not light up until TALK button is pressed.
6. If another inside unit attempts to perform entrance monitoring while one inside unit is already doing so, a warning beep sound will occur.

**6-4 Room-to-room communication**

1. Press CALL button to talk with the other person. 
   - A call-in is sent to the master monitor station.
   - The reply of the other person is not heard.

2. If the other person presses TALK button, hands free communication is possible.

3. Press and release OFF button to end communication.

**NOTES:**
1. Room-to-room communication ends automatically after approximately 10 minutes. To perform room-to-room communication again, repeat from the beginning.
2. If a call is received from the entrance during room-to-room communication, the image from the entrance is displayed at the monitor station and sub station where communication is taking place. Press OFF button to end the room-to-room communication, and press TALK button to switch to communication with the door station.

**6-5 Wide/Zoom switching**

1. Press ZOOM/WIDE button when a picture is displayed.
   - Switching between wide and zoom occurs each time the button is pressed.

**NOTES:**
When the caller is not shown in the center of the picture, the zoom picture can be moved up, down, left, and right. (Refer to section 6-6)

1. The wide picture may be distorted in comparison with the zoom picture due to the characteristics of the door station camera, but this is not a malfunction.
2. For a call from the entrance, the picture starts with the zoom picture. For entrance monitoring, the picture starts with the wide picture.
6-6 Pan/tilt operation

1 When a zoom picture is displayed, press the \( \uparrow, \downarrow, \leftarrow, \rightarrow \) buttons.
   - \( \uparrow \): Up
   - \( \downarrow \): Down
   - \( \leftarrow \): Left
   - \( \rightarrow \): Right
   - Moving diagonally is also possible.

6-7 Night illumination

At night, the door station Illuminator LED lights up during calling or communication.

6-7-1 When a call is made from the door station

1 If CALL button of door station is pressed

2 When communication ends, the illuminator LED will go out.

6-7-2 When the Illuminator LED is lit up during entrance monitoring

1 When \( \text{TALK} \) button is pressed during entrance monitoring, communication starts and the Illuminator LED will light up.
   - Inside sound can be heard at the entrance.

\( \wedge \) Communication starts at this time, so be aware that inside sound can be heard at the entrance.

2 When communication ends, the illuminator LED will go out.

\( \text{NOTES: Distinguishing between day and night is automatically done by the door station.} \)
6-8 Backlight adjustment, Night sensitivity adjustment

To perform adjustment
1. Press ADJUST button when the screen is difficult to see.
   - Automatic adjustment to a more visible screen is performed.

To halt adjustment
1. Press ADJUST button during adjustment.

6-9 If optional units are installed

1. When a separately-installed sensor detects a malfunction or CALL button is pressed, the alarm sound occurs and the transmit LED (red) flashes.

2. Press OFF button to stop the alarm sound.

NOTES: 1. The alarm sounds aren't interlocked with chime tone volume. The alarm sounds at a level equivalent to 10 (HIGH) (fixed).
2. The length of the alarm sound varies depending on the specifications of the connected monitor station.
3. When connecting with JK-1MD, the alarm sound stops after 30 seconds and restoration occurs even if OFF button is not pressed.

7 TECHNICAL PRECAUTIONS

- Operating temperature: 0°C to 40°C (+32°F to +104°F)
- The video image may distort when the door release is activated. But this is not a unit malfunction.
- Cleaning: Clean the units with a soft cloth dampened with a neutral household cleanser. Do not use any abrasive cleaner or cloth.
- If there is a system malfunction, turn the POWER switch at the monitor station OFF and back ON again. If this does not solve the problem, unplug the DC power supply and contact a qualified technician for service.

8 SPECIFICATIONS

- Power: DC 18 V
- Current consumption: (Max.) 200 mA
- Calling: Chime and image, approximately 45 seconds
- Communication: <HANDS-FREE mode> Hands-free
  <PTT mode> Press-to-talk, release to listen: Communication time is based on the connected monitor station.
- Video monitor: 3-1/2" direct view TFT color LCD
- Scanning lines: 525 lines
- Dimensions: 185 (H) x 135 (W) x 27 (D) (mm)
  7-5/16 (H) x 5-5/16 (W) x 1-1/16 (D) (inches)
- Weight: Approx. 370 g (0.82 lbs.)
The object area of $\mathbb{X}$ is the EU.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Increase the separation between the equipment and receiver. - Consult the dealer or an experienced radio/TV technician for help.