

**DOOR SENTRY
VIDEO ENTRY SECURITY INTERCOM**

Models: **MJ-1AD** (Video Monitor)
MJS-1AD/A (Set)

INSTALLATION & OPERATION MANUAL

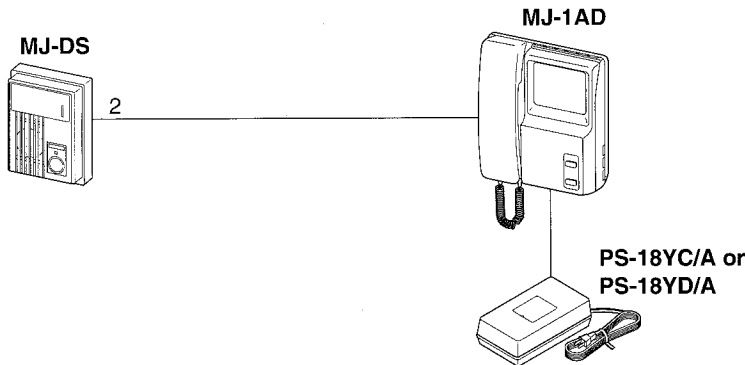
CONTENTS

1. SYSTEM OUTLINE & COMPONENTS 1
 2. NAMES & FEATURES 2
 3. PRECAUTIONS ON INSTALLATION & WIRING 2
 4. WIRING 3~4
 5. MOUNTING 4
 6. OPERATIONS ON MJ-1AD 5
 7. TECHNICAL PRECAUTIONS 6
 8. SPECIFICATIONS 6

1 SYSTEM OUTLINE & COMPONENTS

■ **System outline**

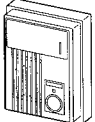

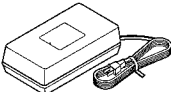
MJ-1AD is a video monitor intercom for use with MJ-DS, wide-angle door station.
 One or two MJ-1AD monitor(s) can be installed in system.



■ **Package contents**

- Video monitor (MJ-1AD)
- Packet of screws
- Installation & Operation Manual

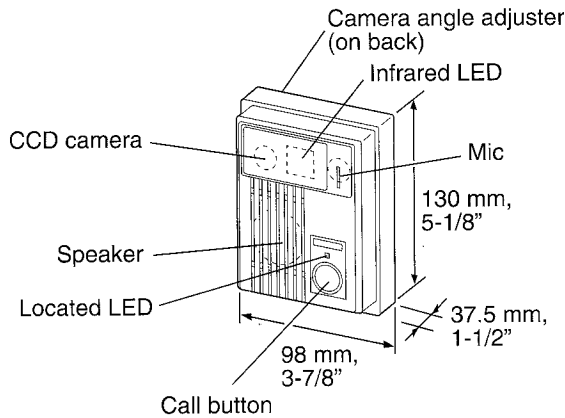
■ **Components available**

<p>MJ-DS</p> <p>Door station</p> 	<p>MJ-1AD</p> <p>Video monitor</p> 	<p>PS-18YD/A, 220/240V AC PS-18YC/A, 120V AC</p> <p>Power supply 18V DC, 1.2A</p> 
---	---	---

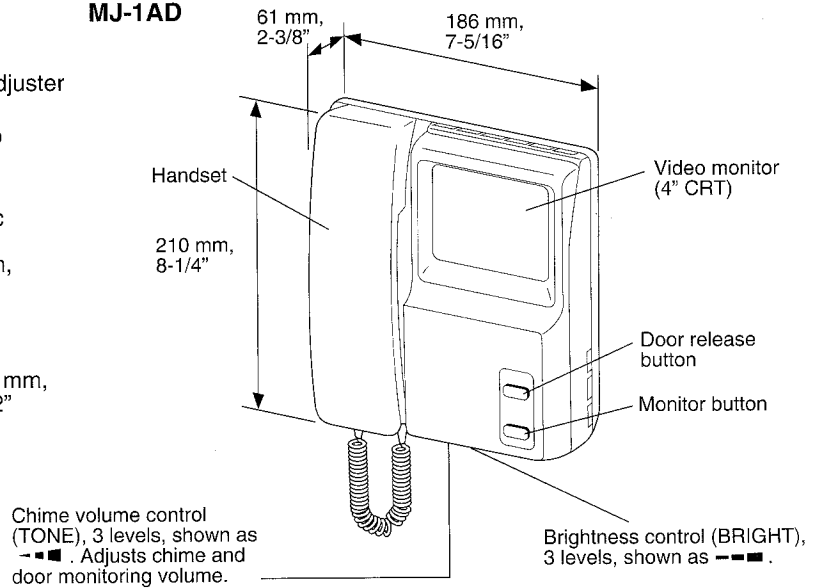
- **Set box is available:**
MJS-1AD/A. C, containing MJ-1AD, MJ-DS & PS-18YC/A
MJS-1AD/A. D, containing MJ-1AD, MJ-DS & PS-18YD/A

2 NAMES & FEATURES

MJ-DS



MJ-1AD



■ Features

- * MJ-DS employs CCD camera, 250,000 pixels
- * Infrared LEDs for viewing in near darkness (1 Lux)
- * Wide angle viewing of 70cm vert. x 100cm horiz. (2'3" V x 3'3" H)
- * Automatic backlight control
- * Distance of 150m, 500' to MJ-DS
- * Camera angle can be adjusted upwardly by 14°
- * Audio and visual monitoring
- * Optional second MJ-1AD monitor

3 PRECAUTIONS ON INSTALLATION & WIRING

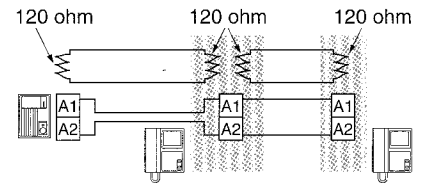
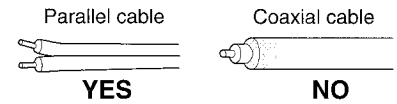
⚠ Caution

- * **Do not connect any terminal on any unit to AC power lines. It can cause unit damage.**
 - * **Do not attempt to install or connect wires on MJ-1AD equipment while power supply is plugged in.**
 - * MJ-1AD monitor unit is designed for indoor use only. Do not install outdoors. MJ-DS door station is weather resistant.
 - * For system's installation, there is no need to disassemble any equipment. Wiring connections are on the back of the units. Do not take unit apart unless properly qualified.
 - * Any other manufacturer's products installed with this system (power supply, etc.) are not covered under Aiphone's warranty.
 - * Do not mount MJ-1AD equipment in the following places, as it may cause the system's malfunction:
 - High or extreme cold temperatruer areas: under direct sunlight, near equipment that varies in temperature, in front of air conditioner, inside a refrigerated area, etc.
 - Places subject to moisture or humidity extremes.
 - Places subject to environmental conditions, such as dust, oil, chemicals, etc.
 - * MJ-1AD is an electrical device, which must not be subjected to water, or any other liquid.
- * **Before actually installing the MJS-1AD/A, the contents of this manual must be thoroughly read and understood.**

4 WIRING

■ Cable requirements

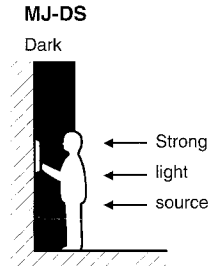
- * Use a parallel conductor cable. Coaxial cable should not be used.
- * When existing chime wires are used, it is possible that the wires may contain high voltage current. Locate and remove the bell transformer before actually connecting MJ-DS.
- * Extra pair(s) in the installed cable can affect image quality, and must be terminated with a 120 ohm resistor at each end on both MJ-DS and MJ-1AD.



■ Installation location

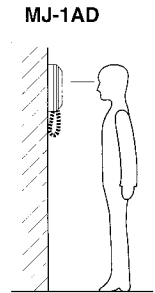
MJ-DS

MJ-DS employs CCD camera and the performance can be affected by bright direct light, such as strong sunlight, gate light, or street or porch light which comes directly into the camera lens.



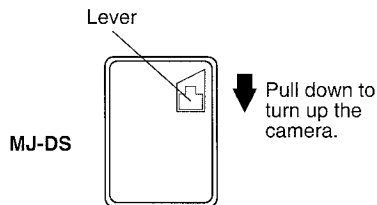
MJ-1AD

Mount the video-monitor so that the center of monitor screen comes to the eye level of the user.



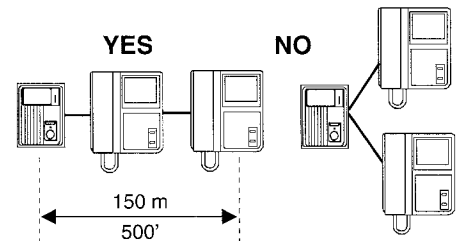
■ When camera height is too low

MJ-DS is equipped with a camera-angle adjuster on back of the unit. Pull down this lever to adjust the camera angle up by 14°.



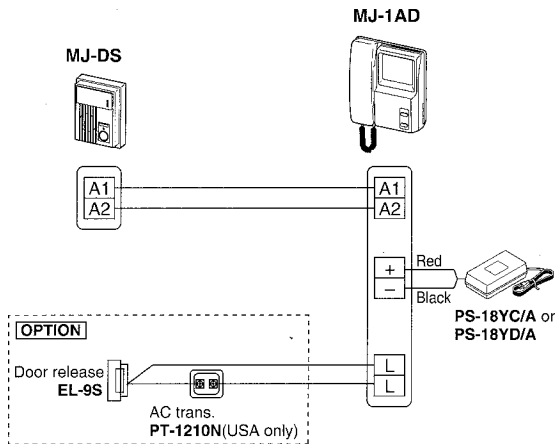
■ When installing a second MJ-1AD

Extend 2 wires (and 2 for door strike) from MJ-1AD to 2nd monitor, which install within 150m, 500' max. allowed from MJ-DS.

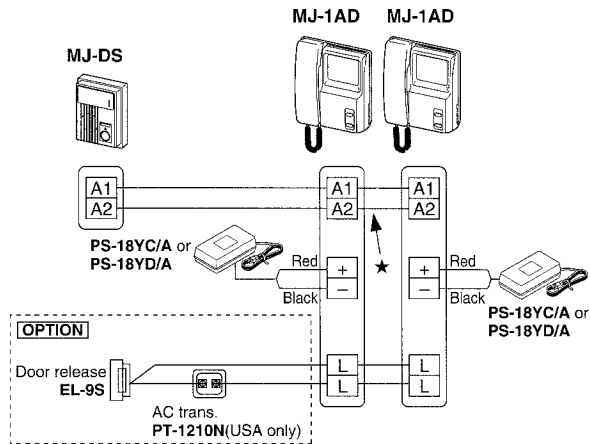


■ Wiring diagram

• MJS-1AD/A system



• 2 MJ-1AD monitor system



★ Strictly observe polarity.

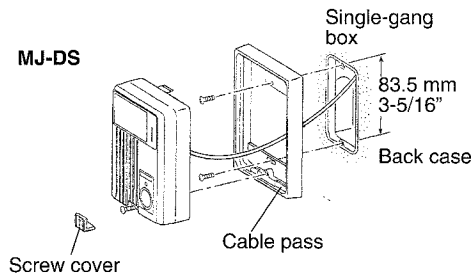
5 MOUNTING

■ MJ-DS

The cover at the bottom conceals the mounting screw.

1. Loosen a screw at bottom of front panel. Lift it off from back case to separate.
2. Mount back case to single-gang box at two points.
3. Connect 2 parallel wires on non-polar A1, A2.
4. Remount MJ-DS aligning on top, and fasten bottom screw. Reattach the cover.

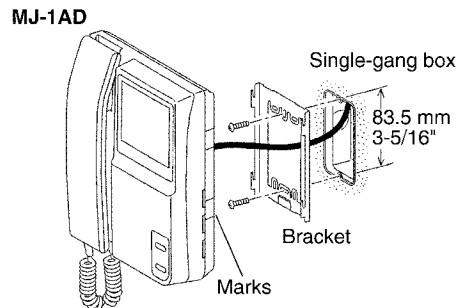
★ Do not apply any sealant around MJ-DS back case, as openings are provided for evaporation.



■ MJ-1AD

Mounting bracket is attached on back of MJ-1AD.

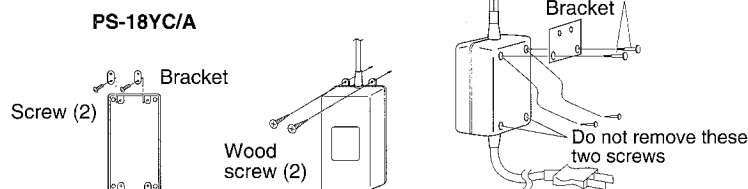
1. Attach the bracket to wall or single-gang box at two points.
2. Connect 2 wires from MJ-DS on non-polar A1, A2.
3. Connect 2 wires from PS-18YC(D)/A to 18V DC terminals. (Red: +, Black: -)
4. Mount MJ-1AD onto the prongs of bracket, aligning at marks. Pull it downward until it locks.
5. Plug in PS-18YC(D)/A power supply.



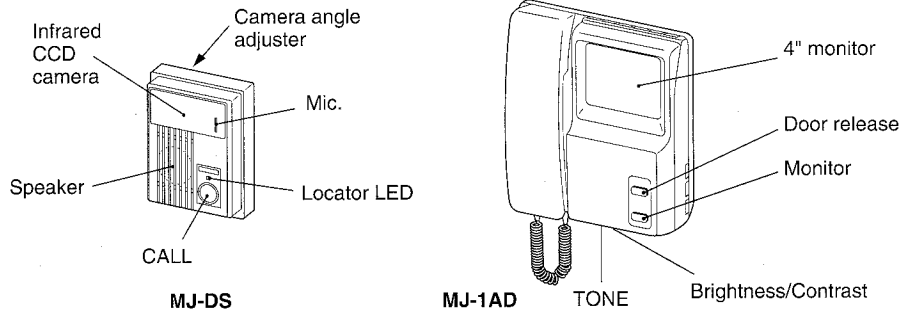
■ PS-18YC/A(120V AC), PS-18YD/A (220/240V AC)

Install the power supply within 1.9m, 6'3" of the monitor.

Do not attempt to extend the DC side of the power supply. If necessary, extend the AC side with an extension cord.



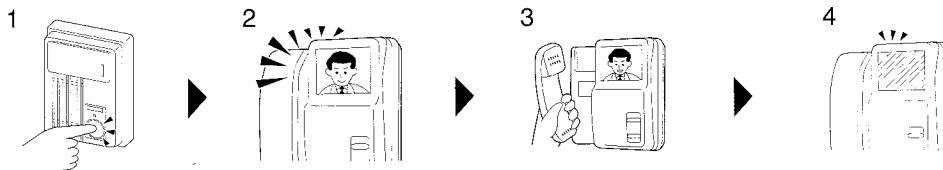
6 OPERATIONS on MJ-1AD



Wide-angle viewing

MJ-DS wide-angle lens sees image of entry 70cm H x 100cm W (2'3" H x 3'3" W) at 50cm, 20" from camera. The camera has automatic backlight compensation.

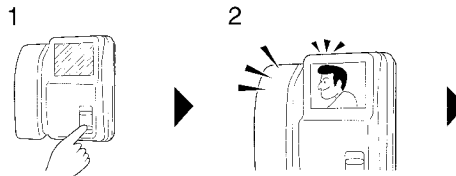
Receiving a call from MJ-DS



1. Press CALL button momentarily on MJ-DS.
2. A 4-tone chime is heard and the monitor turns on (it will turn off in approx. 45 seconds if not answered).
3. Pick up MJ-1AD handset and communicate.
4. Replace handset on cradle.

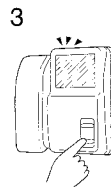
Calling MJ-DS

1. Pick up MJ-1AD handset.
2. Monitor will turn on.
Two-way communication is established.



Visual monitoring

1. Press MONITOR button on MJ-1AD.
2. Both monitor and receive audio are turned on.
3. Press MONITOR button to turn off.
Otherwise it will time out in approx. 2-1/2 minutes.



Monitor timer

1. When called, an image is held for 45 seconds. The image is kept on for 2-1/2 minutes after picking up.
2. Also, monitor is turned on or off with each pressing of the MONITOR button.

Key-marked button

1. Key-marked button provides dry closure contact for door strike.
2. Depress and hold down to activate EL-9S door strike.



Receiving a call at 2nd MJ-1AD

1. Call-in from MJ-DS rings MJ-1AD #2 with 4-tone chime and an image.
2. Pick up on MJ-1AD #2, which shuts off image on MJ-1AD #1.

No room calling feature

1. MJ-1AD #1 and #2 cannot call each other.
2. While one MJ-1AD is picking up, the other MJ-1AD cannot join.

Adjustments

TONE, 3-level for controlling chime call tone and receiver volume in handsfree monitoring.
BRIGHT, 3-level for controlling screen brightness (and contrast).

7 TECHNICAL PRECAUTIONS

- Installation location:**
 The MJ-DS is weather resistant, but for best results it should be protected from direct weather conditions. An eave or overhead cover is recommended to protect it from direct rainfall.
- Temperature:**
 The MJ-DS is rated to operate at temperatures between -10° and 60°C (14° and 140°F). When the outside temperature lowers rapidly, the camera lens may fog up slightly, causing a blurry picture at the inside monitor. The ventilation openings will allow

the moisture to evaporate, and the picture will return to normal.

- Poor lighting conditions:**
 The MJ-DS's infrared illumination will light the image of the caller when positioned within 50cm, 20" in front of the camera, and will see in near darkness (1 Lux of light).
- Cleaning:**
 Clean the unit with a soft cloth and neutral household cleanser. Do not use an abrasive cleaner or cloth.

8 SPECIFICATIONS

- Power source:** DC 18V. Use PS-18YC/A (AC 120V) or PS-18YD/A (AC220/240 V)
Current consumption: Max. 0.8A. 0.05A (standby)
Calling: 4-tone electronic chime (with 3-level volume control)
Call-in timer: 45 seconds approx.
Monitor timer: 2-1/2 minutes approx.
Wiring: 2 parallel conductors (non-polarized)
Wiring distance:

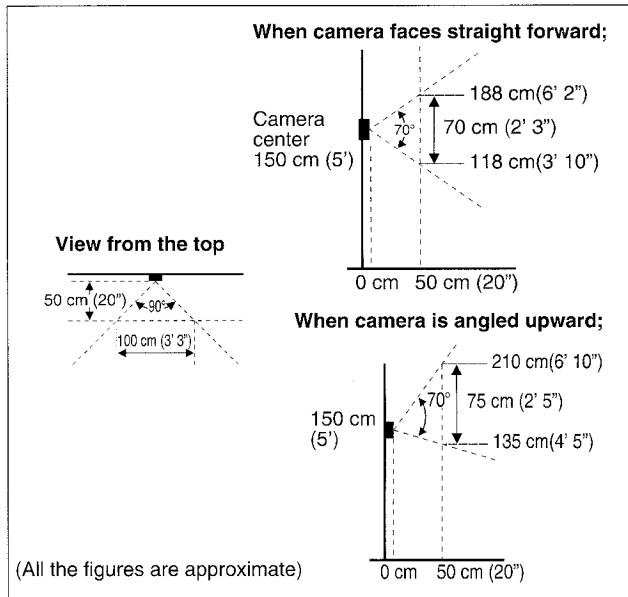
Diameter	0.65mm	1.0mm	AWG	22AWG	18AWG
Distance	75m	150m	Distance	250'	500'

• MJ-1AD

- Video-monitor:** 4" direct view flat CRT
Scanning line: 525 lines
Dimensions (H x W x D): 210 x 186 x 61(mm).
 8-1/4" x 7-5/16" x 2-3/8"
Weight: Approx. 1,060g (2.34 lbs.)

• MJ-DS

- Camera unit:** CCD camera, 250,000 pixels
Image viewing area: 70 cm (2' 3") vertically, 100 cm (3' 3") horizontally at a distance of 50 cm (20")
Minimum illumination: 1 Lux at 50cm, 20" from camera
Dimensions (H x W x D): 130 x 98 x 37,5(mm).
 5-1/8"x 3-7/8" x 1-1/2"
Weight: Approx. 230g (0.51 lbs.)



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.

WARRANTY

Aiphone warrants its products to be free from defects of material and workmanship under normal use and service for a period of two years after delivery to the ultimate user and will repair free of charge or replace at no charge, should it become defective upon which examination shall disclose to be defective and under warranty. Aiphone reserves unto itself the sole right to make the final decision whether there is a defect in materials and/or workmanship; and whether or not the product is within the warranty.

This warranty shall not apply to any Aiphone product which has been subject to misuse, neglect, accident, or to use in violation of instructions furnished, nor extended to units which have been repaired or altered outside of the factory. This warranty does not cover batteries or damage caused by batteries used in connection with the product.

This warranty covers bench repairs only, and any repairs must be made at the shop or place designated in writing by Aiphone.

Aiphone will not be responsible for any costs incurred involving on site service calls.

Aiphone Co., Ltd., Nagoya, Japan
 Aiphone Corporation, Bellevue, WA, USA

MJ-1AD-(E) 0795C

COMMUNICATION SYSTEMS
AIPHONE
 HOME, BUSINESS, INDUSTRY
 Printed in Japan (E)