

INSTRUCTIONS MANUAL

SMOKE DETECTOR
COLOR, B/W
CCD CAMERA

CONTENTS

English / Chinese

- PREFACE
- SAFETY INSTRUCTIONS
- FUNCTION DESCRIPTION
- INSTALLATION
- SPECIFICATIONS

- Thank you very much for purchasing our product.
- Please read the instructions manual thoroughly prior to proceeding to operate.

CONGRATULATIONS ON YOUR PURCHASE OF OUR CAMERA

This product has been carefully inspected through rigid quality control before shipment. With reasonable installation and operation, it will provide years of reliable performance. Considering your investment, we understand you would like to know the full performance capability about the new product. Therefore, we need to recommend that you read the installation and operation manual thoroughly before attempting to install and operate the product.

IMPORTANT INFORMATION BEFORE INSTALLATION

PLEASE read and observe all instructions and warnings contained in this manual. Retain the original manual for future reference. When unpacking your new product, first please compare the received items with your order list, second check for damaged items. If there is anything missing or damage in evidence, please do not install or operate the product, then contact the dealer for assistance immediately. Never try to service this product by yourself. Opening the covers may expose you to dangerous power voltage or other hazards. For your protection, take a moment to complete the following product purchase information. The serial number of this product may be found on the cover of the unit. The serial number may be required by the factory when need service or technical support.

Model NO. _____

Serial NO. _____

Purchase date _____

PREFACE

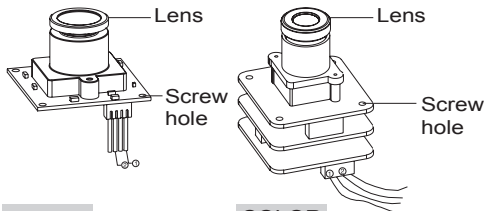
Design for this series smoke detector series CCD camera is based on professional video system processing capability. Interior key components adopt Japanese advanced charge coupled device (CCD) sensor and related peripheral IC. So the CCD camera has better performance such as high sensitivity, sharpness, premium fidelity and low noise. Also it has auto electronic shutter, backlight compensation and white balance function. (For Color Camera only)

Because power design uses switching regulator, its operating current is only 200 mA for DC 12V model. Installation becomes more simple and easier.

SAFETY INSTRUCTIONS

1. Never expose the unit to rain or moisture to avoid electric shock hazard.
2. All service or maintenance should be made by qualified service personnel.
3. Storage temperature-30°C~80°C.
4. All installation and service should conform to local codes.
5. Do not open the cover, it may expose you to power voltage and other hazard.
6. Do not place anything on the unit which maybe spill or fall into the unit.
7. The equipment has been tested and pass the CE standard, which are designed to provide reasonable protection against harmful interference and be insusceptible to other radiating interference when operated in commercial environment.
Therefore, the equipment can't also generate and cause any interference to radio communication.

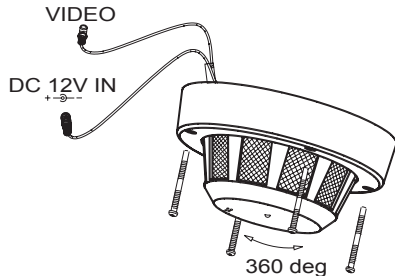
FUNCTION DESCRIPTION



B/W

COLOR

1. Supply DC 12V to ① power line and composite video signal from ② video output.
2. Current 120 mA.



INSTALLATION

1. To screw board camera to installed object.
2. Supply DC 12V to power lines and connect video line to video output lines.
 - * See sketch chart ① power line red +12V, black ground. (with protection function of DC +/- polarity reverse) ② video output white + , black -
 - * Maybe burn out camera by mis-connection to excessive AC voltage.
3. Adjust focus length of lens to get clearer image. (To select suitable board lens depending on installed environment to get reasonable view angle).

NOTES :

1. Never supply AC or more than DC 15V to power line.
2. Supply stable power , otherwise easily produce noise.
3. Using 75 ohm input impedance for display unit.
4. Handle with care to wiring.
5. Don't repeat several times to plug-in and plug-out connector on camera board.

SPECIFICATIONS

| | |
|----------------------------|---|
| Model | Standard Resolution Color Smoke Detector Camera |
| Image device | 1/4" interline CCD SENSOR |
| Effective Picture elements | NTSC 510(H)x492(V) PAL 500(H)x582(V) |
| Scanning system | NTSC standard 525 lines,30 frames / sec PAL standard 625 lines,25 frames / sec |
| Synchronizing system | Internal |
| Resolution | More than 330 TV Lines |
| Electronic shutter control | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL |
| Gamma | 0.45 |
| Minimum illumination | 0.6 LUX./ F1.2 |
| Video output level | 1Vp-p / 75 ohms,composite |
| Video S/N ratio | 47dB (AGC OFF) |
| White balance | Auto-white balance (2000°K~10000°K) |
| Operating temperature | -10°C~50°C |
| Storage temperature | -30°C~80°C |
| Power requirements | DC12V±1.2Vdc |
| Power consumption | DC 12V Typical 98mA |
| Dimensions | 130(Φ)×57mm (H) |
| Weight | 140g |
| Lens | Option |

A4CM

| | |
|----------------------------|---|
| Model | Standard Resolution B/W Smoke Detector Camera |
| Image device | 1 / 3" interline CCD SENSOR |
| Effective Picture elements | EIA 510(H)x492(V) CCIR 500(H)x582(V) |
| Scanning system | EIA standard 525 lines,30 frames / sec CCIR standard 625 lines,25 frames / sec |
| Synchronizing system | Internal |
| Resolution | More than 420 TV Lines |
| Electronic shutter control | Auto-Electronic shutter (1/60~1/100000) EIA (1/50~1/100000) CCIR |
| Gamma | 0.45 |
| Minimum illumination | 0.1 LUX./ F1.2 |
| Video output level | 1Vp-p / 75 ohms,composite |
| Video S/N ratio | 48dB (AGC OFF) |
| Operating temperature | -10°C~50°C |
| Storage temperature | -30°C~80°C |
| Power requirements | DC12V±1.2Vdc |
| Power consumption | DC 12V Typical 100mA |
| Dimensions | 130(Φ)×57mm (H) |
| Weight | 140g |
| Lens | Option |

A3BM



| | | |
|----------------------------|---|---|
| Model | Standard / High Resolution Color Smoke Detector Camera | |
| Image device | 1 / 3" interline CCD SENSOR | |
| Effective Picture elements | NTSC 510(H)x492(V) PAL 500(H)x582(V) | NTSC 768(H)x494(V) PAL 752(H)x582(V) |
| Scanning system | NTSC standard 525 lines,30 frames / sec PAL standard 625 lines,25 frames / sec | |
| Synchronizing system | Internal | |
| Resolution | More than 330 TV Lines | More than 460 TV Lines |
| Electronic shutter control | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL | |
| Gamma | 0.45 | |
| Minimum illumination | 1 LUX./ F1.2 | 2.5 LUX./ F2.0 |
| Video output level | 1Vp-p / 75 ohms,composite | |
| Video S/N ratio | 46dB (AGC OFF) | |
| White balance | Auto-white balance (2000°K~10000°K) | |
| Operating temperature | -10°C~50°C | |
| Storage temperature | -30°C~80°C | |
| Power requirements | DC12V±1.2Vdc | |
| Power consumption | DC 12V Typical 150mA | |
| Dimensions | 130(Φ)x57mm (H) | |
| Weight | 140g | |
| Lens | Option | |

A3CM / A3CH



| | | |
|----------------------------|---|--|
| Model | Standard Resolution B/W Smoke Detector Camera | |
| Image device | 1 / 3" interline CCD SENSOR | |
| Effective Picture elements | EIA 512(H)x492(V) CCIR 512(H)x582(V) | |
| Scanning system | EIA standard 525 lines,30 frames / sec CCIR standard 625 lines,25 frames / sec | |
| Synchronizing system | Internal | |
| Resolution | More than 420 TV Lines | |
| Electronic shutter control | Auto-Electronic shutter (1/60~1/100000) EIA (1/50~1/100000) CCIR | |
| Gamma | 0.45 | |
| Mechanical iris | No | |
| Minimum illumination | 0.18 LUX./ F2.0 | |
| Video output level | 1Vp-p / 75 ohms,composite | |
| Video S/N ratio | 46dB (AGC OFF) | |
| White balance | No | |
| Operating temperature | -10°C~50°C | |
| Storage temperature | -30°C~80°C | |
| Power requirements | DC12V±1.2Vdc | |
| Power consumption | DC 12V Typical 100mA | |
| Dimensions | 130(Φ)x57mm (H) | |
| Weight | 140g | |
| Lens | Option | |

B3BM



| | | |
|----------------------------|---|------------------------|
| Model | Standard / High Resolution Color Camera | |
| Image device | 1/3" interline CCD SENSOR | |
| Picture elements | NTSC 512(H)×492(V) | NTSC 771(H)×492(V) |
| | PAL 512(H)×582(V) | PAL 753(H)×582(V) |
| Scanning system | NTSC standard 525 lines , 30 frames / sec PAL standard 625 lines , 25 frames / sec | |
| Synchronizing system | Internal | |
| Resolution | More than 330 TV Lines | More than 460 TV Lines |
| Electronic shutter control | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL | |
| Gamma | 0.45 | |
| Minimum illumination | 1.0 LUX./ F1.2 | 2.0 LUX./ F1.2 |
| | Video output level 1Vp-p / 75 ohms | |
| Video S/N ratio | 48dB (AGC OFF) | |
| White balance | Auto | |
| Operating temperature | -10°C~50°C | |
| Storage temperature | -30°C~80°C | |
| Power requirements | DC12V±10% | |
| Power consumption | 120mA (MAX) | |
| Dimensions | 130(Φ)×57mm (H) | |
| Weight | 140g | |
| Lens | Option | |

C3CM / C3CH

感謝你購買本公司的攝影機

你目前已擁有本公司所精心製造監視系統產品中的一種，此產品出廠前經過嚴格的品管檢驗，具設置簡單和功能操作容易，本公司考慮到您投資效益，為能使產品發揮它最大功能，請您在安裝和操作前，先仔細閱讀此安裝和操作手冊。

安裝前的重要資訊

請先閱讀所有的操作指令和注意事項，並保管好此手冊，以備將來查詢參考。

在拆裝後，請先核對收到的項目，是否和當初所訂購的項目相同，若有項目缺失或任何嚴重的損傷造成無法安裝或操作，請立即聯絡經銷商處理，千萬不要自行打開盒蓋，以避免造成觸電或其它危險。

為了保障你的權益，請先花少許時間，填寫以下的資料：

型號：_____

序號：_____

購買日期：_____

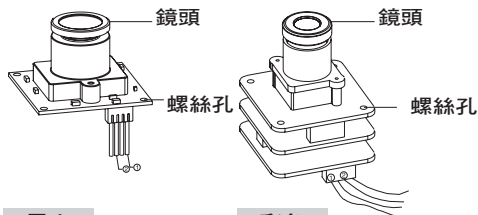
規格特色

本公司之“煙霧偵測器造型系列”CCD攝影機，是經由專業影像處理系統設計而成，所有之關鍵元件皆採用日本進口之CCD（電荷耦合元件）感測器，及其他相關之IC，因此，本系列CCD攝影機之品質優良，除了有很高的感光度外，影像品質也非常清晰、銳利、雜訊也格外精確且非常之低，另外，並配有自動電子快門、逆光補償、白平衡等功能（僅針對彩色系列）。

注意事項

1. 勿將此產品放在易受雨水淋到或濕氣很重的地方，以避免短路。
2. 所有的產品問題應由專業人員維護修理。
3. 儲存溫度-30°C ~ 80°C。
4. 所有的安裝和維修請依照當地法令。
5. 請勿打開蓋子，以免造成觸電及其他的危險。
6. 不要放任何液體在盒蓋上，以避免不小心翻覆後，流入機器內，造成損毀。
7. 此產品的設備已通過CE標準的檢測，提供可靠的保護，避免在使用環境中遭受有害的輻射干擾，因此不會對無線通訊造成干擾。

功能說明



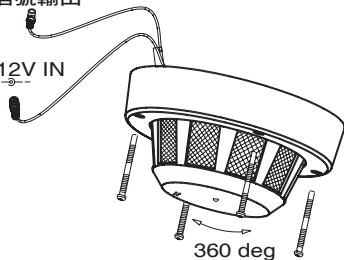
黑白

彩色

1. 電源需求DC 12V ① 電源線和連接視訊信號輸出線 ②
2. 電流 120 mA.

視訊信號輸出

DC 12V IN



安 裝

1. 將攝影機鎖在所需要固定之物體上。
2. 將電源接上紅色電線，影像輸出接上白色電線

* 請參考附圖

- (1) 電源線: 紅 + 12V，黑接地。
(附有電源正負級之保護裝置)
- (2) 訊號線: 白 + 黑接地。

* 如果因為誤接而過強的AC電流將使攝影機損壞

3. 調整鏡頭將畫面調整至最佳狀況。

(依安裝的地點及角度來選擇正確的鏡頭尺寸)

附註：

1. 不可用AC或高於DC15V之電源。
2. 需要穩定的電源供應來源，否則會有較多之雜訊。
3. 輸入阻抗75Ω。
4. 接線時要小心輕放。
5. 不要同時將電源插座拔出及插入太多次。

產 品 規 格

| | |
|--------|---|
| 型號 | Standard Resolution Color Smoke Detector Camera |
| 影像感測器 | 1 / 4" interline CCD SENSOR |
| 有效畫素 | NTSC 510(H)×492(V) PAL 500(H)×582(V) |
| 掃描系統 | NTSC standard 525 lines · 30 frames / sec PAL standard 625 lines · 25 frames / sec |
| 同步系統 | Internal |
| 解析度 | More than 330 TV Lines |
| 電子快門控制 | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL |
| 伽碼 | 0.45 |
| 最低照度 | 0.6 LUX / F1.2 |
| 影像輸出標準 | 1Vp-p / 75 ohms · composite |
| 影像雜訊比 | 47dB (AGC OFF) |
| 白平衡 | Auto-white balance (2000°K~10000°K) |
| 操作溫度 | -10°C~50°C |
| 儲存溫度 | -30°C~80°C |
| 電源供應 | DC12V±1.2Vdc |
| 電流損耗 | DC 12V Typical 98mA |
| 尺寸 | 130(Φ)×57mm (H) |
| 重量 | 140g |
| 鏡頭 | Option |

A4CM



| | |
|--------|---|
| 型號 | Standard Resolution B/W Smoke Detector Camera |
| 影像感測器 | 1 / 3" interline CCD SENSOR |
| 有效畫素 | EIA 510(H)×492(V) CCIR 500(H)×582(V) |
| 掃描系統 | EIA standard 525 lines , 30 frames / sec CCIR standard 625 lines , 25 frames / sec |
| 同步系統 | Internal |
| 解析度 | More than 420 TV Lines |
| 電子快門控制 | Auto-Electronic shutter (1/60~1/100000) EIA (1/50~1/100000) CCIR |
| 伽碼 | 0.45 |
| 最低照度 | 0.1 LUX./ F1.2 |
| 影像輸出標準 | 1Vp-p / 75 ohms , composite |
| 影像雜訊比 | 48dB (AGC OFF) |
| 操作溫度 | -10°C~50°C |
| 儲存溫度 | -30°C~80°C |
| 電源供應 | DC12V±1.2Vdc |
| 電流損耗 | DC 12V Typical 100mA |
| 尺寸 | 130(Φ)×57mm (H) |
| 重量 | 140g |
| 鏡頭 | Option |

A3BM



| | | |
|--------|---|---|
| 型號 | Standard / High Resolution Color Smoke Detector Camera | |
| 影像感測器 | 1/3" interline CCD SENSOR | |
| 有效畫素 | NTSC 510(H)×492(V) PAL 500(H)×582(V) | NTSC 768(H)×494(V) PAL 752(H)×582(V) |
| 掃描系統 | NTSC standard 525 lines , 30 frames / sec PAL standard 625 lines , 25 frames / sec | |
| 同步系統 | Internal | |
| 解析度 | More than 330 TV Lines | More than 460 TV Lines |
| 電子快門控制 | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL | |
| 伽碼 | 0.45 | |
| 最低照度 | 1 LUX./ F1.2 | 2.5 LUX./ F2.0 |
| 影像輸出標準 | 1Vp-p / 75 ohms , composite | |
| 影像雜訊比 | 46dB (AGC OFF) | |
| 白平衡 | Auto-white balance (2000°K~10000°K) | |
| 操作溫度 | -10°C~50°C | |
| 儲存溫度 | -30°C~80°C | |
| 電源供應 | DC12V±1.2Vdc | |
| 電流損耗 | DC 12V Typical 150mA | |
| 尺寸 | 130(Φ)×57mm (H) | |
| 重量 | 140g | |
| 鏡頭 | Option | |

A3CM / A3CH



| | |
|--------|---|
| 型號 | Standard Resolution B/W Smoke Detector Camera |
| 影像感測器 | 1/3" interline CCD SENSOR |
| 有效畫素 | EIA 512(H)×492(V) CCIR 512(H)×582(V) |
| 掃描系統 | EIA standard 525 lines , 30 frames / sec CCIR standard 625 lines , 25 frames / sec |
| 同步系統 | Internal |
| 解析度 | More than 420 TV Lines |
| 電子快門控制 | Auto-Electronic shutter (1/60~1/100000) EIA (1/50~1/100000) CCIR |
| 伽碼 | 0.45 |
| 電子光圈 | No |
| 最低照度 | 0.18 LUX / F2.0 |
| 影像輸出標準 | 1Vp-p / 75 ohms , composite |
| 影像雜訊比 | 46dB (AGC OFF) |
| 白平衡 | No |
| 操作溫度 | -10°C~50°C |
| 儲存溫度 | -30°C~80°C |
| 電源供應 | DC12V±1.2Vdc |
| 電流損耗 | DC 12V Typical 100mA |
| 尺寸 | 130(Φ)×57mm (H) |
| 重量 | 140g |
| 鏡頭 | Option |

B3BM



| | | |
|--------|---|---|
| 型號 | Standard / High Resolution Color Camera | |
| 影像感測器 | 1 / 3" interline CCD SENSOR | |
| 有效畫素 | NTSC 512(H)×492(V) PAL 512(H)×582(V) | NTSC 771(H)×492(V) PAL 753(H)×582(V) |
| 掃描系統 | NTSC standard 525 lines , 30 frames / sec PAL standard 625 lines , 25 frames / sec | |
| 同步系統 | Internal | |
| 解析度 | More than 330 TV Lines | More than 460 TV Lines |
| 電子快門控制 | Auto-Electronic shutter (1/60~1/100000) NTSC (1/50~1/100000) PAL | |
| 伽碼 | 0.45 | |
| 最低照度 | 1.0 LUX / F1.2 | 2.0 LUX / F1.2 |
| 影像輸出標準 | 1Vp-p / 75 ohms | |
| 影像雜訊比 | 48dB (AGC OFF) | |
| 白平衡功能 | Auto | |
| 操作溫度 | -10°C~50°C | |
| 儲存溫度 | -30°C~80°C | |
| 電源供應 | DC12V±10% | |
| 電流損耗 | 120mA (MAX) | |
| 尺寸 | 130(Φ)×57mm (H) | |
| 重量 | 140g | |
| 鏡頭 | Option | |

C3CM / C3CH