

Traditional Hi-Res Colour Camera

The CAM060 is a traditional Hi-res 550TVL colour camera supplied with or without lens. The camera is dual voltage (12vDC or 24vAC) and is fitted with a SONY ExView 1/3" CCD. The camera has an on screen menu with options for fitting a Direct Drive or Video Drive lens and facilities such as Privacy Masking, Motion Detection, Day/Night mode and Mirror function.



Models Covered in these instructions

CAM060 Traditional Hi-Res 550TVL Colour Camera without lens

CAM060L Traditional Hi-Res 550TVL Colour Camera with 2.8mm ~ 12mm Direct Drive Lens

CAM060M Traditional Hi-Res 550TVL Colour Camera with 12mm ~ 30mm Direct Drive Lens

Powering the Camera

The dome requires a 24v AC or 12v DC regulated power supply. Connect the power cable observing the polarity for 12vDC operation. Note that a special 2 pin connector terminal is supplied with the camera. To avoid cutting off the 2.1mm jack plug on the power supply, use a 2.1mm power socket and connect a twin lead to it checking that the positive is connected to the centre pin.

12v DC power

When connecting to 12v DC power always use a regulated supply. Ensure the correct polarity setting is made. Use a 12v DC 500mA power supply unit minimum.

24v AC power

When connecting to 24v AC power supply use a 24v AC 300mA power supply unit minimum.

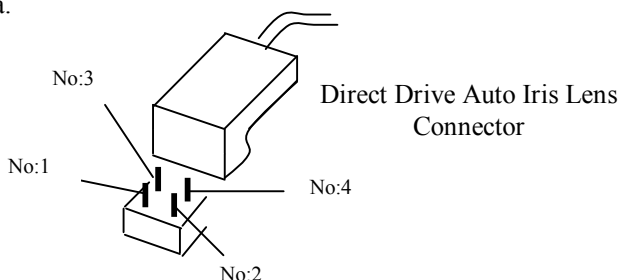
Precautions

- Do not install the camera in extreme temperature conditions. Only use the camera where temperatures are between -10 degrees centigrade and +50 degrees centigrade.
- Never install the camera in damp or humid conditions. This can affect image quality.
- This camera requires stable lighting conditions to operate effectively.
- Do not touch the front lens of the camera. Fingerprints can stain the lens glass.
- The camera must not be placed directly facing the sun or strong light. This may damage the camera CCD.
- Never expose the camera to rain or liquids. These will corrode the camera electronics.
- Do not subject the camera to vibration as it may cause camera malfunctions.

Video Connection

The camera is supplied without a lens or with the choice of two fitted lenses. It is designed to work with an Auto Iris Direct Drive Lens, Video Drive Lens, CS-Mount Lens or C-Mount Lens. The camera is supplied with an Auto Iris Lens connection socket. A Lens protection cap is also supplied. The camera has a back focus screw for locking the lens on the side of the camera. If you are fitting a Direct Drive Lens these are usually fitted with a connection plug that is fitted into the connection socket on the side of the camera.

Pin No:	LENS	
	Direct Drive	Cable Colour
No: 1	Damping -	Yellow
No: 2	Damping +	White
No: 3	Drive +	Red
No: 4	Drive -	Green



Fitting Camera Lens

Fitting a CS-Mount lens or Direct Drive lens just requires the lens to be fitted direct to the camera body. If fitting a C-Mount lens then you will need to fit a C-Mount adaptor. When fitting the Direct Drive Lens ensure that the Auto Iris Lens connector is fitted to the socket on the side of the camera. Using a lens which is too heavy for the camera, may cause a malfunction. Ensure weight of lens is less than 450g.

To adjust the lens focus, use a suitable watchmaker's screw driver and loosen the Back Focus Clamp Screw situated at the side of the lens base. Adjust focus and retighten clamp screw.

Fitting into camera housing

This camera has two fixing screw holes, one on the top of the camera case and one underneath. A standard size camera screw connector will fit. Ensure that the clamp screw is not over-tightened as this can damage the camera case.

Camera Video Input

The camera is fitted with a BNC connection on the back of the camera. No fly lead is supplied. Connect video cable with BNC direct to camera.

On Screen Display Menu

This camera has an On Screen Display Menu. Select this by pressing the OSD menu button on the side of the camera. When pressed the SETUP menu screen will be displayed. Menu auto exits after several seconds.

SETUP MENU



Select the LENS type first. DC for DC Drive Iris Lens, Manual for fixed Iris Lens and Video for Video Drive Iris Lens.

LENS

LENS DC DC DRIVE IRIS LENS
If Direct Drive Lens fitted the LENS DC Menu will appear. Use left and right arrow key movement to select brightness level.

MANUAL Fixed Iris Lens

VIDEO Video Drive Iris Lens

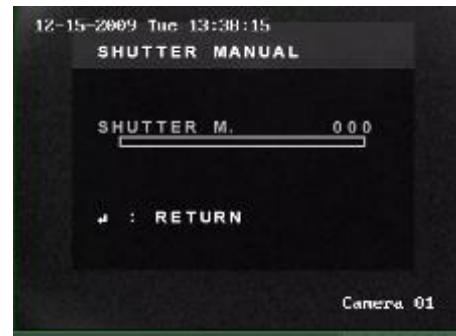


SHUTTER

FIXED Fixed Shutter
Select from 1/500, 1/250, 1/120(FLK), 1/50,
1/100,000, 1/10,000, 1/5000, 1/2000

FLK Anti-Flicker

MANUAL Manual
(Set graduated scale) →



BACKLIGHT COMPENSATION

If varying light conditions, backlight compensation can be switched ON to enable overall control of light distribution.

AUTOMATIC GAIN CONTROL

Use the left and right arrow keys to set the video gain control.

Provides clearer images in low light conditions.



WHITE BALANCE

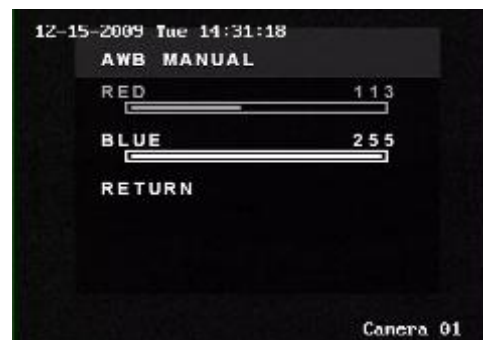
MANUAL AWB MANUAL

Set auto white balance by adjusting red and blue Settings 000 ~ 255.

FIXED AWB FIXED
MODE 1, 2, 3, 4
Select the required fixed mode.

AWB Auto White Balance
This uses stored settings for white balance and is most suitable where there is little change in light source.

ATW Auto Tracking White Balance
Suitable for viewing objects with changing colour

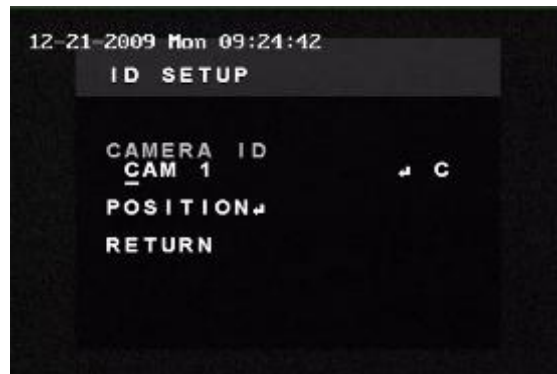


<u>FUNCTION</u>	
RETURN	Return
CAMERA ID	Camera ID
MIRROR	Reverse Picture
DAY NIGHT	Set Day Night
PRIVACY	Mask area
GAMMA	Adjust level
LANGUAGE	Set language
RESET	Set defaults



CAMERA ID OFF / ON

This is used to set Camera Identity. Ensure CAMERA ID is selected (grey colour) and press set button. Then select characters using up and down arrow keys. When complete select left arrow position and press set button. Note that camera ID position starts under second character of CAMERA ID as shown and that up to 15 characters can be used. Clicking on C will clear the camera ID selected.



Use the POSITION button by selecting it and pressing set button. Move ID to camera position required and press set button. Click on left arrow button to close and then select RETURN. Note that the camera ID is only displayed when the CAMERA ID is switched to ON.

MIRROR OFF / ON

This option allows a reverse image to be displayed if set to ON.

DAY NIGHT AUTO / COLOR / B/W

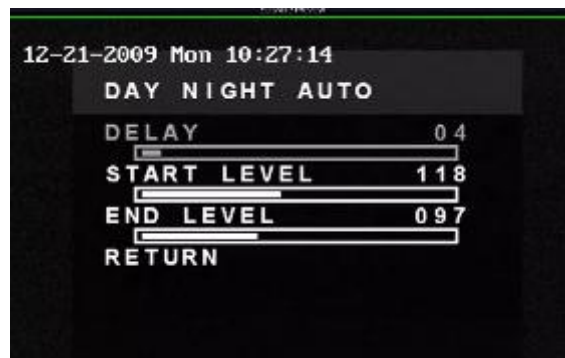
AUTO Press set button to enter menu. Colour during day and B/W at night.

DELAY 00 / 63

This allows the switching between day and night and night and day, to be delayed for the stipulated time in minutes, so that switching does not occur on and off during the twilight period.

START LEVEL / END LEVEL 0 – 255

Allows the light levels from day to night and from night to day to be selected for controlling when to switch modes.



COLOR Set for continuous colour day and night

B/W Set for B/W continuous and BURST

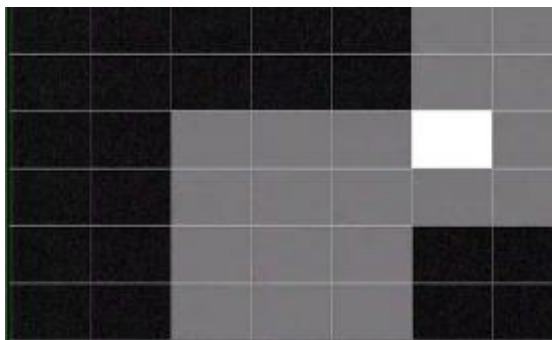
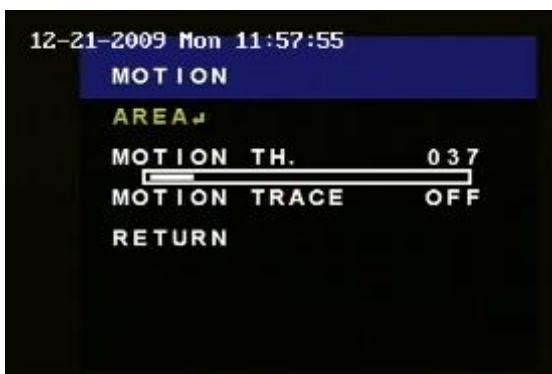
MOTION OFF / ON

This option displays a small image in the right hand corner of the screen when motion is detected.

AREA This allows the setting of areas for motion detection.

MOTION TH. This sets motion sensitivity 0 ~ 255

MOTION TRACE ON / OFF
Not applicable in this camera.



PRIVACY OFF / ON

This allows an area of the picture to be masked off when switched ON. Up to 4 areas can be set.

AREA SEL Select area number 1 ~ 4

AREA STATE Select to ON to activate area

LEFT/RIGHT/TOP/BOTTOM 0 ~ 255
Set area size



GAMMA 0.45 (0.05 ~ 1.00)

This setting allows the Gamma correction to be adjusted.

LANGUAGE JAPANESE / CHINESE (SIMPLIFIED) / CHINESE TRADITIONAL / KOREA
Select language

NOTE: In the event that an incorrect language is selected, the following will help you re-establish the correct language:

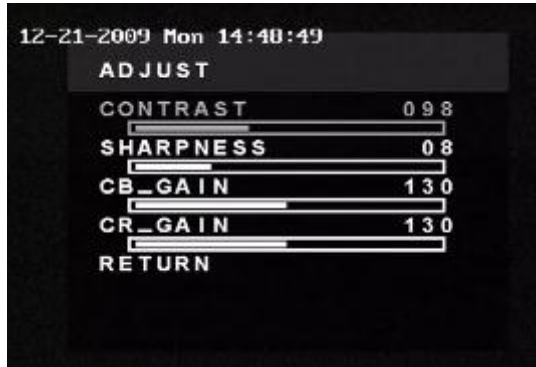
1. Let menu timeout and disappear.
2. Press set button to enter menu. Select the sixth line and press set button.
3. Select eighth line and press set button.
4. Adjust left or right until correct language is displayed.

RESET

Restores camera to default settings.

ADJUST

This function allows you to make changes to the picture contrast and sharpness, and make changes to the blue and red chrominance settings.



TECHNICAL SPECIFICATIONS

CAM060	PAL	NTSC
Picture Elements	752H x 582V	768H x 494V
Scanning System	625 lines 2:1 Interlace	525 lines 2:1 Interlace
Scanning Rate	15.625KHz(H), 50Hz	15.734KHz(H), 59.94Hz
Shutter Speed	1/50 ~ 1/100,000sec	1/60 ~ 1/100,000sec
Image Sensor	1/3" SONY SuperHAD CCD	
Horizontal Resolution	550 TVL	
Sync. System	Internal	
S/N Ratio	More than 50dB (AGC off)	
Auto Gain	ON (Max 4 ~ 30dB)	
Minimum Illuminance	0.05Lux (F1.2)	
Gamma	r = 0.45	
White Balance	AWB (2,100°k ~ 9,100°k)	
Video Output	CVBS, 1Vp~p, 75w	
Current Consumption	12v DC 120mA (use 300mA PSU)	
Operation Temperature	-10°C ~ +50C 85% Relative Humidity	
Operation Humidity	90% Relative Humidity maximum	



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