KJM

C55

Mini Dome Camera
with On Screen Menu
Installation and Operating Guide

KJM is dedicated to providing the finest in shipboard cameras, video accessories, VHF and AIS antennas and related accessories. Our high quality cameras are built to withstand the harsh marine environment and designed by professionals with over three decades of experience in the marine industry. KJM cameras provide crystal-clear images of whatever you need to monitor, from the engine room to the aft deck, day or night. Built to exacting standards from the finest materials, KJM products are rugged, available in a wide variety of styles and configurations, and will work with most marine monitors or Chart Plotters. No matter what your marine surveillance requirements, KJM has a product to meet your needs.

Please read the following pages before attempting installation to ensure complete understanding of the KJM C55 camera.

Precautions

- To reduce the risk of electric shock, do not remove or disassemble the bullet camera as there are no user serviceable parts inside.
- Qualified service personnel or system installers must install this product.
- Do not operate beyond its specified temperature, humidity and power source ratings.
- Clean only with a dry cloth.

If you require additional support for the installation or use of this camera please contact us via email at info@kjm-holdings.com

FEATURES

- Mini and stylish and designed from the ground up for demanding marine installations.
- Ideal inboard larger leisure yachts, commercial vessels and workboats alike.
- 12 Infra-Red LEDs for true day / night operation.
- 3.6mm fixed lens / 1000 TVL.
- On Screen Display (OSD) camera selections - Normal and Mirror image selection.

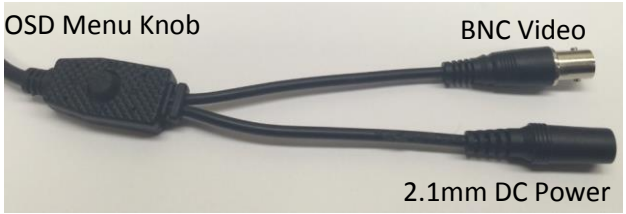
ACCESSORIES

AMP-1/4	BNC-5	COMB-10	COMB-25	POW-5
				
Video Distribution Amp (1 Camera In, 4 Outputs)	5 Meter Video Cable	10 Meter Power and Video Cable	25 Meter Power and Video Cable	5 Meter Power Cable

INSTALLATION

Note: KJM recommends not cutting the 2.1mm DC power connector off the camera and has supplied a power cable to help resolve installation issues. Removing the connector voids the warranty and could physically damage the camera circuitry.

1. Be careful not to pinch video or power cables during installation.
2. Connect to 12VDC only with supplied power cable or optional cables.



Electrical Connections

2.1mm DC Power

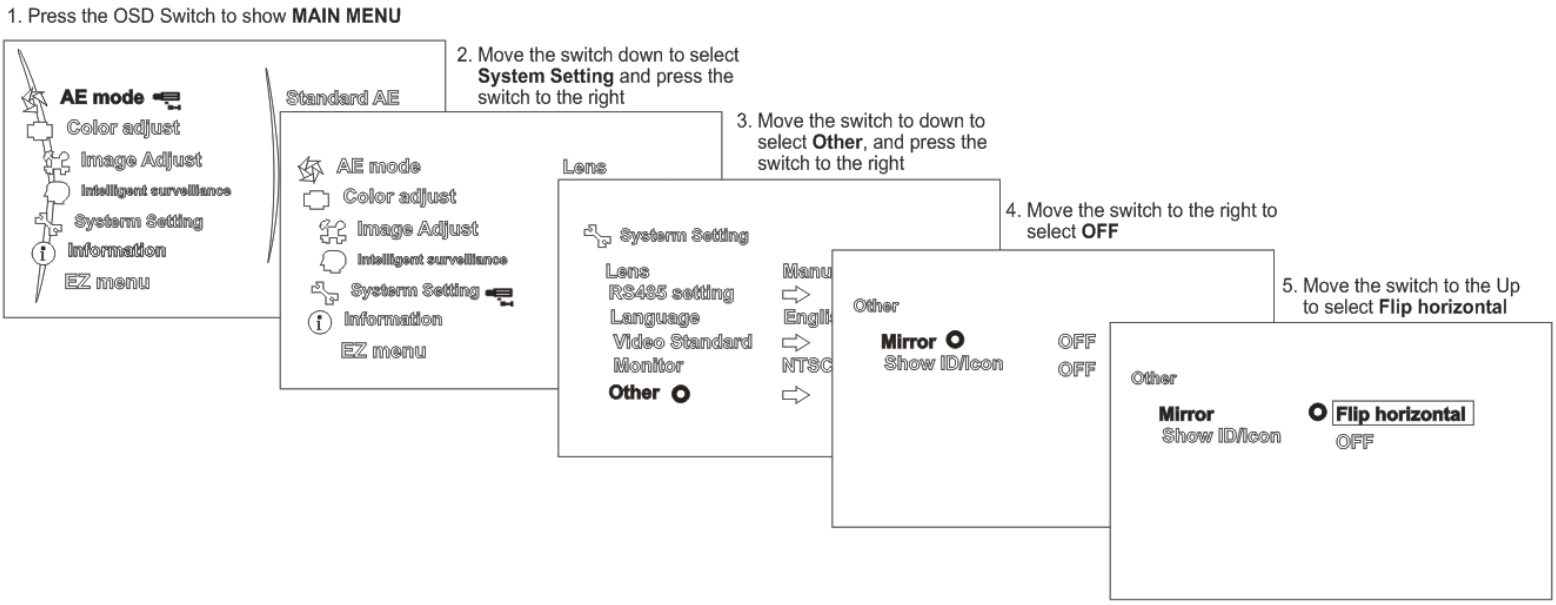
- +12VDC, 800mA
- Center pin +12VDC
- Body = Ground

BNC Video Output

- BNC female
- 1vP~P, 75 Ω Composite video
- Center pin: Video positive,
- Body: Video ground

INITIAL SETUP

1. Run a power **(12VDC only)** and video cable (COMB-10 or COMB-25) from the chart plotter or monitor to the cameras final location and connect to the camera power and video cables.
2. Locate the OSD Menu switch on the camera power/video cable. Press to show the main menu on the chart plotter or monitor.
3. There a many customizable selections, one of the most used is “Normal” (OFF) or “Reverse image” (Flip Horizontal).
4. Refer to the steps below to make the change and to become familiar with menu operation for other selections detail in **On Screen Display** section.



MOUNTING THE CAMERA

1. Using the supplied hex key remove the camera base

2. Drill a 9/16” (15mm) hole for the camera's cables, and 3 pilot holes for the base mounting screws.
3. Carefully feed the cable through the mounting base and attach the base using 3 screws.
4. Attach camera’s base with 3 mounting screws carefully so not to pinch the power/video cable.
5. Re-assemble the camera using the hex key.

On Screen Display

Menu Setup (refer to Initial Setup of operation)

1. Locate the OSD Menu switch on the power/video cable of the camera.
2. Press the switch to show the MAIN MENU on the monitor or chart plotter’s display.
3. To browse menu functions, press the knob up or down. To select a sub-menu, press the knob to the right or the left.

Note: Menu items grayed in the table below do not operate.

Layer 1	**Layer 2**	Layer 3	Layer 4	Description
AE mode				
	Standard AE			Standard exposure mode
		Smart WDR	0~1 **[0]**	
	SWDR			Double scan wide dynamic range mode
		Auto switch	Auto, Manual **[Auto]**	Auto switch SWDR mode by program or manual open
		B/D ratio	0~10 **[8]**	Bright & Dark ratio
		Low lum Brightness	0~40 **[15]**	
		SWDR on point	1~11 **[2]**	
		SWDR off point	0~10 **[1]**	
	BLC			Backlight compensation mode
		Level	Auto, Low, Middle, High **[Auto]**	Dark area compensation level
	HLC			
		Set range	(Right click setting)	Set over exposure range, click enter to switch upper-left point and lower-right point, click 4 times for leaving mask setting
		Level	Low, Middle, High **[High]**	Dark area compensation level
		Mask grayscale	1~6 **[1]**	Mask grayscale level
	Defog			The defog mode
		Defog	Auto, Low, Middle, High **[Auto]**	The defog switch
		3D-NR	Off, On **[On]**	Switch of 3DNR
		Ext	Off, High, Low **[Off]**	
		Sensitivity	1~13 **[8]**	
		Level	1~13 **[8]**	The defog level
Color adjust				
	AWB		ATW2-10.5K, ATW2-8.5K **[ATW2-10.5K]**	Auto white balance
	Brightness		0-99 **[55]**	Brightness
	Color-Red		0-99 **[52]**	Color of red
	Color-Green		0-99 **[46]**	Color of green
	Color-Blue		0-99 **[56]**	Color of blue
	Contrast		0-99 **[50]**	Contrast
	Saturation		0-99 **[45]**	Saturation
	Indoor CRS		Off, On **[Off]**	Color rolling suppression
Image Adjust				
	Day & Night			Day and Night mode

		D&N mode	Color, BW, Auto-Progressive, Auto-General, EXT **[EXT]**	Color: Color mode BW: Black and white mode Auto-Progressive: Human-like progressive black and white mode Auto-General: General black and white mode EXT: Switch by external signal. At the same time, need to set detect level-->[IR input level]
		Color burst	Off, On **[Off]**	Enable / disable color burst signal. Works under [BW] , [Auto-General] , [EXT] mode
		Delay Control	0-255 **[1]**	The delay time(second) of switch of D&N, Works under [Auto-General] mode
		Day -> Night	0-255 **[250]**	The entry point of Day to Night, this entry point must be late the back point of [Night -> Day]. Works only under [Auto-General] mode
		Night -> Day	0-255 **[200]**	The back point of Night to Day. This back point must be early the entry point of [Day -> Night]. Works oonly under [Auto - General] mode
		IR-CUT output	High, Low, Off **[Low]**	Output high or low level to control IR-CUT device. Works under [Auto-General] & [EXT] mode
		IR input level	High, Low **[Low]**	Works oonly under [EXT] mode
		Smart IR control	0 ~ 6 **[0]**	Set smart IR level, Works only under [EXT] mode
		Delay time	0 ~ 60**[2]**	Works under [EXT] mode
	Digital slow shutter		1/100000, 1/10000, 1/5000, 1/2000, 1/500, 1/250, 1/100,1/60, Auto, 2x, 3x, 4x, 5x, 8x, 16x, 32x, 64x, 128x, 256x, 512x **[3x]**	Shutter speed
	3D-NR		0-10**[10]**	3DNR level
	2D-NR		0-32 **[10]**	2DNR level
	Sharpen		0-7 **[3]**	Sharpen level
	FC suppress		0-15 **[8]**	False color suppression level
	Blemish compensation		0-2 **[1]**	Blemish compensation level
	Face skin enhance		Off, On **[Off]**	
Intelligent surveillance				

	Multi object tracking			Multi object tracking
		D-Zoom	0 ~ 5 **[5]**	Zoom level
		Sensitivity	- 4 ~ 4 **[0]**	Set sensitivity of motion detection
		Smart tracking	On, Off **[Off]**	Smart tracking switch
		Frame follow	On, Off **[Off]**	Frame follow switch
		Warning trigger	High, Low, Off **[Off]**	
		Warning Seconds	0~3600 **[10]**	
		Manual hot zoom	On, Off **[On]**	Manual hot zoom switch
		Zoom select	1, 2 **[1]**	
		Set range	(Right click setting)	Click 4 times for leaving mask setting
		Switch	On, Off **[On]**	Tracking switch
		Number edges	4,5,6 **[4]**	Select edge
		Mask color	1~15 **[1]**	Mask color
		Hot Zone display	On, Off **[On]**	Hot Zone display
	D-Zoom			Digital zoom
		D-Zoom	1~8 **[1]**	Digital magnification 1.0x ~ 8.0 x
		Tilt	-10 ~ 10 **[0]**	Tilt
		Pan	-10 ~ 10 **[0]**	Pan
	Privacy mask			Set privacy mask
		Opacity	0-3 **[3]**	Set opacity of privacy mask
		Mask select	1~8 **[1]**	Select mask
		Set mask area	(Click right button)	Set size and position of mask, Enter for switch upper-left point and lower-right point, click 4 times for leaving mask setting
		Switch	Off, On **[Off]**	Mask switch
		Mask color	1~15 **[1]**	Mask color
	Close IS			Close Intelligent surveillance
System setting				
	Lens			Lens type
		mode	DC-Indoor, DC-Outdoor, Manual **[Manual]**	
		Brightness	-50 ~ 50 **[0]**	Works only under DC IRIS lens
		Aperture speed	0~7 **[4]**	Control IRIS lens aperture speed
		Lens type	1~4**[1]**	
	RS485 Setting	Camera ID	0~255 **[1]**	Pelco ID
		Baud rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800 **[2400]**	Baud Rate

		Pelco setting	Key function--->Menu, Left, Right, Down, Up key setting --->Wait, Ok	
	Language		English, Chinese	Set language (Support 2 language)
	Monitor	Monitor	CRT, LCD **[CRT]**	Switch monitor type
		Level	0~37 **[8]**	
	Video standard		NTSC, PAL **[NTSC]**	Video system
	Other			
		Mirror	Off, Flip horizontal **[Off]**	Set mirror direction of camera image
		Show ID/Icon	Off, Show ID/icon, Show ID, Show icon **[Off]**	Show ID or icon
Information			DSP, System, PID, FW, UI	Information
EZ menu			STD, Auto tracking, SWDR, Defog, HLC, BLC	Simple OSD function icon

PS: **[ ]** is default value

SPECIFICATIONS	
Dimensions	2.4"W x 1.8"H x 2.4"D
Weight	7.2 oz.
Material	Aluminum, White Power Coat Finish
Environmental Rating	IP66
Camera Sensor	SONY Exmor 1.3 Mega pixels CMOS
Camera Resolution	1000 TVL, Low Illumination
Lens	3.6mm Fixed with True Day & Night IR filter
Reverse image	Yes
IR Illumination	12 LED's / IR Distance 50 FT
Usable Illumination	0 Lux / F2.0 (LED On)
Connections	Video: BNC Female, Power: DC 2.1mm Jack
Output Signal / Signal to Noise	Composite Video 1V P-P 75 Ohms / 72dB (WDR On)
Operating Temp	14F to 122F 95% Relative Humidity
Power	12VDC, 800mA (Max LED On)

FCC STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class “A” digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

FCC CAUTION: To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment. This Class A digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations. WARNING- this product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

LIMITATION OF LIABILITY

- This publication is provided “AS IS” without warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for any particular purpose, or non-infringement of the third parties right.
- This publication could include technical inaccuracies or typographical errors. Change are added to the information herein, at any time, for the improvements of the publication and/o the corresponding product(s).

DISCLAIMER OF WARRANTY

In no event shall the supplier be liable to any party or any person, except for replacement or reasonable maintenance of the product, for the cases, including but not limited to the following:

- Any damage or loss, including but without limitation, direct or indirect, special, consequential or exemplary, arising out of or relating to the product.
- Personal injury or any damage caused by inappropriate use or neglect of the user.
- Unauthorized disassembly, repair or modification of the product by the user.
- Any problem, consequential inconvenience, or loss or damage, arising out of the system combined with the devices of the third party.
- Any claim or action for damages, brought by any person or organization being photogenic subject, due to violation of privacy with the results of the camera’s picture, including save3d data, for some reason, becomes public or is used for the purpose other than surveillance.

TERMS

1. BLC (Back Light Compensation) - In images where a bright light source is behind the subject of interest, the subject would normally appear in silhouette. BLC allows the camera to adjust the exposure of the entire image to properly expose the subject in the foreground. WDR is a more effective alternative to BLC because it handles multiple exposure zones to give both the high light and low light areas a proper exposure.

2. WDR (Wide Dynamic Range) - Adjustment used to enhance the image when the subject is in a shaded or brightly lit area.

3. HLC (High Light Compensation) - Setting used to lower strong spots of light to produce clearer images.

4. DNR (Digital Noise Reduction) - Image noise is interference in the video signal that shows up as grainy specks, DNR is a technique of removing image noise from a video signal by applying a digital comb filter.

5. Video Privacy Mask - Privacy Masking is a feature that allows you to blur or completely block certain areas seen on the monitor within the field of view of the camera.

6. Auto-iris - Allows the camera to control the lens iris to adjust for varying lighting conditions. There are often two related options as well, DC and Video - DC means the camera actually controls the iris, Video means the camera only supplies power to the lens, and a sensor in the lens controls the iris.

5. Backlight compensation - Brightens the image so that dark objects can be seen in strong lighting conditions.

6. White balance - Allows adjustments for different "temperatures" of lighting. Incandescent light, have more red and yellows, while fluorescent tends to be more blue / greenish. Because camera sensors see all colors equally, cameras may show those color casts.

7. Slow shutter - Provides low-light images by reducing the shutter speed below the normal, which allows more light to be collected by the sensor... however, that also allows motion blur to occur.

8. Mirror - Option simply flips the picture left-to-right, perfect setting for a reverse camera on a back deck for docking.