

# JVC

PROFESSIONAL

1/2" CCD COLOUR VIDEO CAMERA

# TK-C1460BE

(24V AC/12V DC)

Dual mode Colour and B&W Camera with Auto IR Switching, High Sensitivity and Motion Detection

**0.3 Super LoLux**  
**lux**



Shown with optional lens

- 1/2" Super LoLux CCD
- High resolution equivalent to 480 TV lines (Colour/ B&W)
- Minimum required illumination
  - Colour 0.3 lux (F1.2, video 25%, AGC 20dB, normal shutter 1/50 sec.)
  - Slow shutter to 32/50 sec. for minimum illumination to 0.01 lux
  - B&W 0.008 lux (F1.2, video 25%, AGC 20dB, normal shutter 1/50 sec.)
  - Slow shutter to 32/50 sec. for minimum illumination to 0.00023 lux
- Day and night surveillance with automatic IR filter transmission
- Sophisticated Backlight Compensation
  - BLC
  - High Light Inverter
  - Extended Dynamic Range
- ATW / AWC white balance / manual paint
- Automatic motion detection with alarm signal
- Scene file memory by command (4 files)
- Dump command function
- 10x digital zoom option via remote control
- RS-422A/ 485 control

# Enforced Highly Sensitive Day & Night Surveillance camera Extended Dynamic Range

**JVC's innovative TK-C1460BE is the first CCTV camera with true IR shooting capability. It takes perfect colour pictures under all lighting conditions, including such extremes as when subjects are lit up by brilliant sunlight and dark shadows are cast which cannot be penetrated by a conventional camera or when the light levels are so low that the subjects are barely visible to the naked eye. At very low light the faithful TK-C1460BE automatically switches its shooting mode from colour to B&W. Even in total darkness—provided the subject is IR-illuminated—it captures perfect B&W images. Thus the TK-C1460BE has a true 24-hour, round-the-clock surveillance capability. The built-in motion detector completes the ideal security package, which can be configured for individual applications or integrated into a multi-camera system.**



## ■ 1/2" Interline Transfer (IT) CCD with Super LoLux 0.3 lux in Colour mode

With JVC's new-generation 1/2-inch IT CCD 752 (H) x 582 (V), supported by JVC's exclusive Super LoLux technology, the TK-C1460BE can shoot in low ambient light to 0.3 lux (F1.2, 25%, AGC 20dB, 1/50 sec.) and 0.005 lux minimum illumination (F1.2, 25%, AGC 26dB, 32/50 sec.).

## ■ Infrared Shooting

The TK-C1460BE has an IR shooting capability. When it is switched to B&W-mode, the camera can shoot in complete darkness and gather crisp black and white images of IR-illuminated objects. The B&W mode can be manually switched via the camera menu or remotely.

**Caution:** Attach a lens with an IR capability when using IR-lamps up to 880 mm are suitable.

## ■ Auto/Manual Colour/B&W Switching

When darkness falls the TK-C1460BE

automatically switches from colour to B&W shooting mode. In addition to the three settings for the auto switching, there is a manual control accessed remotely, or via the menu.

## ■ Extended Dynamic Range

The camera's innovative Digital Signal Processor (DSP) features Extended Dynamic Range (ExDR), which lets users capture images at a location with both dark and bright areas. Bright portions in the shooting area are shot with a high-speed shutter exposure, while dark portions are shot with normal exposure. The two images are merged to create one single image with full visible detail in the bright and dark areas alike.

## ■ RS-422A and RS-485 Terminals

RS-422A and RS-485 terminals ensure multi-system control compatibility for remote camera adjustments.

## ■ Motion Detector

A built-in motion detector can sense movement within the camera's viewing area and so send out an alarm signal.

## ■ Full Genlock

INT/EXT (Full Genlock) expands possible applications using BB or VBS (BNC) sync input connectors.

## ■ White Balance

Three white balance modes—ATW, AWC (one push automatic) and AWC (manual with paint)—ensure optimum white balance under a wide range of colour temperatures and circumstances.

## ■ Camera ID

The TK-C1460BE features a built-in camera ID system for use when building a multi-camera surveillance system.

## ■ Automatic Electronic Shutter (AES)

The powerful AES of the TK-C1460BE increases possible applications with shutter speeds ranging from

```

--- MENU ---
> SYNC ADJUST..
  ALC SETTINGS..
  VIDEO ADJUST..
  MODE SELECT..
  MOTION DETECT..
  COMMUNICATION..
  MAINTENANCE..
  FACTORY SETTINGS..
  
```

```

--- VIDEO ADJUST ---
> WHITE BALANCE  ATW
  COLOUR LEVEL  NORMAL
  ENHANCE LEVEL  NORMAL
  PEDESTAL LEVEL NORMAL
  AUTO BLACK CTL OFF
  
```

```

--- MOTION DETECT ---
> MODE          OFF
  LEVEL         NORMAL
  AREA EDIT...
  ALARM TIME   10s
  DEMONSTRATION..
  
```

```

---WHITE BALANCE CONTROL---
> AWC SET...
  R : .....: B
  ME : .....: G
  
```

```

--- ALC SETTINGS ---
> IRIS LEVEL  NORMAL
  AVERAGE:PEAK  8.2
  SHUTTER/ExDR  NORMAL
  AGC MODE     20dB
  LOLUX MODE   OFF
  SENSE UP     OFF
  PRIORITY     MOTION
  BLC          EDIT1
  B&W/COLOUR MODE
  
```

```

--- SHUTTER/ExDR ---
> SHUTTER SPEED  1/120
  FAST LIMIT    ---
  ExDR LEVEL     ---
  M.ExDR SPEED  ---
  
```



# Switching: Colour ↔ B&W [Auto/Manual Selectable]



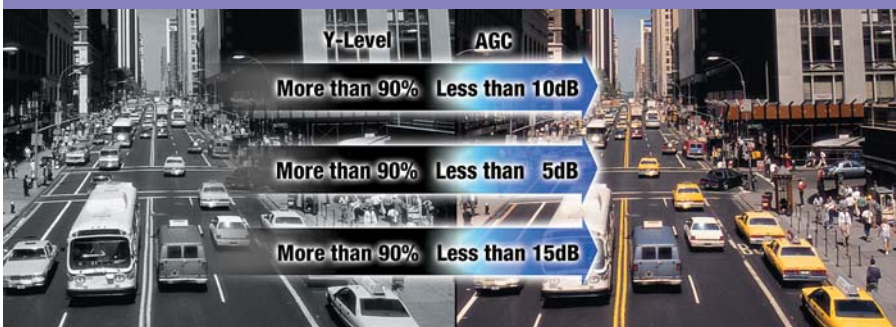
## Switching: Colour ↔ B&W [MANUAL MODE]

- Control the switching timing via AUX terminal (to set the IR ON/OFF mode in the menu)
- CLOSED: B&W mode, OPEN: COLOUR mode



## Switching: Colour ⇄ B&W [AUTO MODE (3 Levels)]

- NORMAL: AGC 15dB + Y level is less than 50% over 30 seconds
- HIGH: AGC 10dB + Y level is less than 65% over 30 seconds
- LOW: AGC 20dB or Super + Y level is less than 35% over 30 seconds



## Switching: B&W ⇄ Colour [AUTO MODE (3 Levels)]

- NORMAL: AGC less than 10 dB + Y level is more than 90% over 30 seconds
- HIGH: AGC less than 5 dB + Y level is more than 90% over 30 seconds
- LOW: AGC less than 15 dB + Y level is more than 90% over 30 seconds

- Notes:**
- An infrared compatible lens must be mounted to ensure proper functioning of the backfocus feature in darkness with infrared illumination.
  - It is recommended to use manual switching from B&W infrared to colour shooting when there is a sudden change in lighting conditions; for example, momentary direct exposure to a car's headlamps. It is also recommended to use an external trigger when using the B&W mode.
  - Due to optical hysteresis conversion conditions from colour to B&W and from B&W to colour are different.
  - For AUX terminal, B&W if AUX input is closed, colour if open.

## Images of Extended Dynamic Range

These images are sample images output in an extended dynamic range. So, actual images may vary according to various shooting conditions.



32/50~1/100,000 second, ensuring correct exposure under any lighting conditions. In auto mode the camera adjusts the shutter speed according to the ambient light. Manual setting ensures unblurred images of fast-moving objects.

### ■ Video Out and Y/C Output Connectors

The TK-C1460BE comes with VBS output via BNC, as well as Y/C output via 4-pin S-terminal.

### ■ Simple Menu-driven Operation

A simple menu lets users set all parameters including IRIS level, ENHANCE level, AGC level, ATW/AWC, H.PHASE/SC phase, AGC ON/OFF, and L.L. phase.

### ■ Backlight Compensation

The Backlight Compensation function gives to strongly back-lit foreground subjects not only clear detail but also a sense of depth. Four pre-set and two user-adjustable zones are available.

### ■ H.L.I. (High light Inverter)

The new high light inverter function ensures superb overall image quality when part of a subject is under especially strong illumination. H.L.I. MODE is the



function which the highlighted part of the image is made black mask to make the surroundings of the highlighted part better visible. Set to HIGH when there are many highlighted parts.

### ■ Accepts C/CS Mount IR-Compatible Lenses

The TK-C1460BE is C/CS-mount lens compatible, which allows infrared-compatible lenses to be mounted.

### ■ Scene file memory by command (4 files)

Up to 4 file of camera setting depended on circumstance.

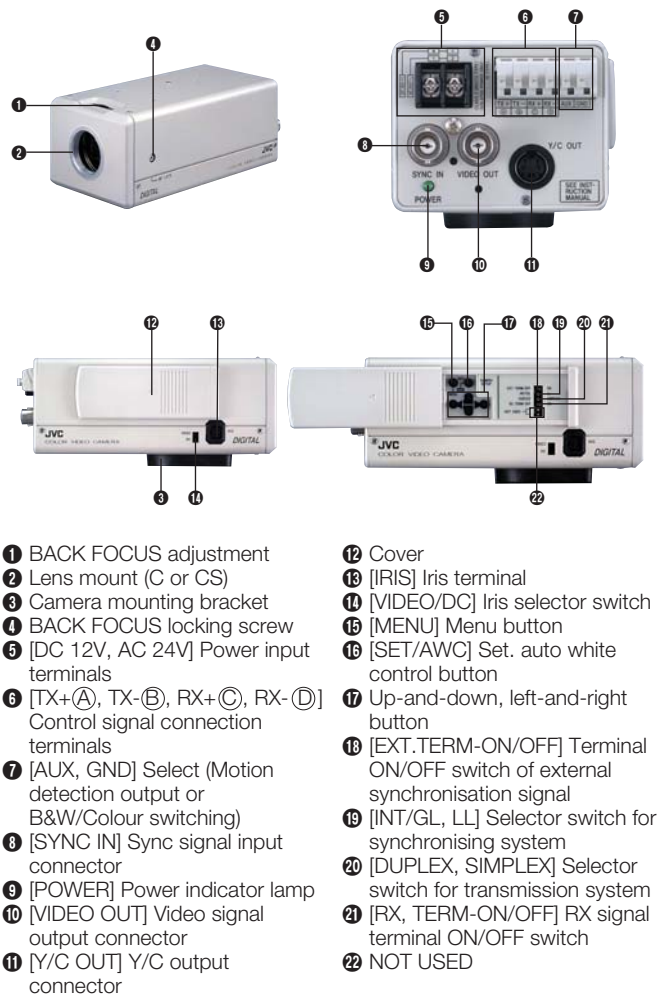
### ■ Dump 64 by command

Upload and download of Setting data possible.

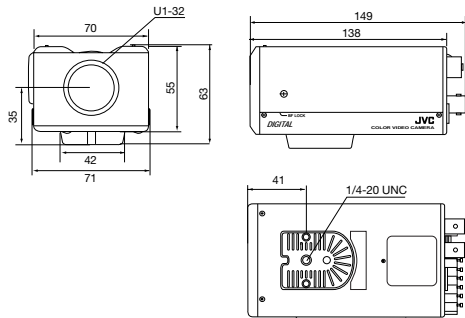
## Specifications

Signal system	PAL
Image device	1/2" IT CCD, 752 (H) x 582 (V)
Sync system	Internal, Line Lock, Full Genlock
Scanning frequency	15.625 kHz (H), 50 Hz (V)
Horizontal resolution	480 TV lines
Video output	Composite video signal, 1V(p-p), 75 ohms (BNC)
Y/C output	Y/C video signal (4-pin) Y: 0.7V(p-p), 75 ohms C: 0.3V(p-p), 75 ohms
Video S/N ratio	50 dB (AGC OFF)
Minimum required illumination	
in Colour mode	0.6 lux (F 1.2, 50%, AGC 20dB, Normal shutter 1/50 sec.) 0.3 lux (F 1.2, 25%, AGC 20dB, Normal shutter 1/50 sec.) 0.15 lux (F 1.2, 25%, AGC 26dB, Normal shutter 1/50 sec.) 0.02 lux (F 1.2, 50%, AGC 20dB, Slow shutter 32/50 sec.) 0.01 lux (F 1.2, 25%, AGC 20dB, Slow shutter 32/50 sec.) 0.005 lux (F 1.2, 25%, AGC 26dB, Slow shutter 32/50 sec.)
in B&W mode	0.015 lux (F 1.2, 50%, AGC 20dB, Normal shutter 1/50 sec.) 0.008 lux (F 1.2, 25%, AGC 20dB, Normal shutter 1/50 sec.) 0.004 lux (F 1.2, 25%, AGC 26dB, Normal shutter 1/50 sec.) 0.0005 lux (F 1.2, 50%, AGC 20dB, Slow shutter 32/50 sec.) 0.00023 lux (F 1.2, 25%, AGC 20dB, Slow shutter 32/50 sec.) 0.00012 lux (F 1.2, 25%, AGC 26dB, Slow shutter 32/50 sec.)
Communication	RS-422A or RS-485 (switchable) 9600 bit/s
Lens mount	C/CS mount (threading depth max. 5.5 mm)
Power requirement	AC 24 V (50 Hz/60 Hz), DC 12 V
Power consumption	550 mA
Operating temperature range	-10°C to +50°C 0°C to 40°C (recommended)
Weight	640g
Accessories	4p plug x1, Ferrite core x1, Instructions x2

## Controls, Connectors and Indicators



## Dimensions



Unit: mm

## Other Equipment

### RM-P2580E Remote Control Unit

Build a cost-effective surveillance system by using the RM-P2580E to control other colour cameras as well, such as the TK-C1480BE (Camera Menu Setting) and TK-C676E/TK-C655E 360° dome colour cameras.

- Built-in PAN, TILT, and ZOOM controls
- Auto panning
- Built-in 8ch sequential switcher function

- Auto Patrol Mode
- Auto alarm operation
- Multi-alarm input/outputs
- 8 video input/outputs (Loop through)
- Operation lock function
- Interface: RS-485 for camera



# JVC

VICTOR COMPANY OF JAPAN, LIMITED

DISTRIBUTED BY

Design and specifications subject to change without notice.



■ The Hachioji Plant of Victor Company of Japan, Ltd., has received ISO14001 and ISO9001 Certifications under the global standard for environmental management.