

# JVC®

The Perfect Experience / —  
/

## Lolux™ Dome Range Indoor/Outdoor Systems

High-Resolution Colour Cameras with Direct Drive Motor for Quick, Silent, and Accurate Operation

TK-C686WPE/TK-C685WPE



540 TVL

36x/27x  
Optical  
Zoom

0.03°  
Super  
Accuracy

Fast/Slow  
Variable Pan  
Tilt Speed

Silent  
Operation

0.04lx\*  
Super  
LoLux™

Easy  
Installation

\*at B&W mode

Direct Drive Dome

### ■ Direct Drive Motor for Extra Precision and Silence

- Super Accurate Positioning ( $\pm 0.03^\circ$  precision)
- Super Fast & Super Slow Pan/Tilt (500°/sec to 0.04°/sec variable)
- Super Silent Operation (Ideal for hospitals, libraries, and museums)

### ■ High-Resolution of 540 TV Lines

1/4" IT CCD with approx. 440,000 effective pixels captures precise images for high-quality monitoring

### ■ Day/Night Function with IR Cut Filter

Automatic switching between day and night modes for reliable round-the-clock surveillance

### ■ Effective Backlight Compensation

ExDR (by dual shutter) Function allows secured monitoring even in backlit situations

### ■ Super LoLux™ Sensitivity

0.04 lx at B&W mode (25% video level, F1.6, AGC SUPER)  
0.5 lx at colour mode (25% video level, F1.6, AGC SUPER)

### ■ Easy Installation

One-touch lock mechanism for quick and easy installation and maintenance

### ■ Stylish Design and Colour

Stylish dome camera neatly matches the environment

### ■ Dust- and Waterproof Design (TK-C686WPE/C685WPE)

IP66-standard robust design suitable for outdoor monitoring system

# A Choice of Cameras Built to the Highest Specifications, Worthy of Any Surveillance System

JVC's Direct Drive Motor-equipped Dome Camera series has just been powered up. You can now select the best choice for your usage environment and budget, based on factors like zoom magnification needs and indoor/outdoor usage capabilities. But regardless of your choice, you can always count on JVC's

originally developed Direct Drive Motor mechanism, high and low-speed Pan/Tilt, superior precision and low noise for usability that's a notch above the competition. And with a host of valuable functions at your fingertips, JVC's new line up is more than ready to add new quality and convenience to your surveillance system.

## TK-C686E/TK-C685E



Indoor Model

## TK-C686WPE/TK-C685WPE



Outdoor Model

### Internal Dome Design

Normally recessed into a false ceiling to provide minimal intrusion in any indoor location. Or, when surface-mounted the sleek design will let it blend into a variety of environments for inconspicuously effective surveillance.

### External Dome Design

Made to IP66 standards, the housing provides complete protection from the elements but still provides crisp, clear images of its surroundings. Materials used will provide long-lasting service over years of harsh weather conditions.

### Quick Comparison

	TK-C686E	TK-C685E	TK-C686WPE	TK-C685WPE
Type	Indoor	Indoor	Outdoor	Outdoor
Zoom Ratio	36x Optical	27x Optical	36x Optical	27x Optical
Image Stabiliser	•		•	
Dust & Waterproof			•	•
Direct Drive Motor	•	•	•	•
Super LoLux™	•	•	•	•



# Direct Drive Motor – Breakthrough mechanism for more accurate and reliable camera movement

The TK-C686/C685 Series incorporates a newly-developed Direct Drive Motor for Pan/Tilt operation. Instead of a conventional belt-type mechanism, it can provide monitoring with more precision, less operation noise, and superior durability.

## ● See what's good about Direct Drive Motor Mechanism!

### Super Fast (500°/sec) & Super Slow (0.04°/sec) Pan/Tilt Performance

With a maximum 500°/sec. movement, you won't miss a crucial scene. Even when pan/tilting manually, the mechanism is very responsive allowing stress-free joystick operation. Furthermore, extremely slow movement of 0.04°/sec. is possible, so you can take a good look at the scene even at high zoom rates, thanks to the slow and smooth movement.

### Super Accuracy of $\pm 0.03^\circ$ for Preset Positions

With an accuracy of  $0.03^\circ$ , it can precisely maintain preset camera positions even after frequent panning and tilting, which becomes especially important at high zoom magnifications. With an ordinary camera (with low accuracy such as  $0.1^\circ$ ), the camera position gradually shifts each time the camera is panned or tilted, so that after frequent usage the position becomes totally different from the initial correct position.

#### ■ Conventional belt-type unit with low accuracy

Position A



Camera positions rotate as preset



Back to Position A



Becomes different from initial position.

#### ■ Direct Drive Motor with $0.03^\circ$ accuracy

Position A



Camera positions rotate as preset



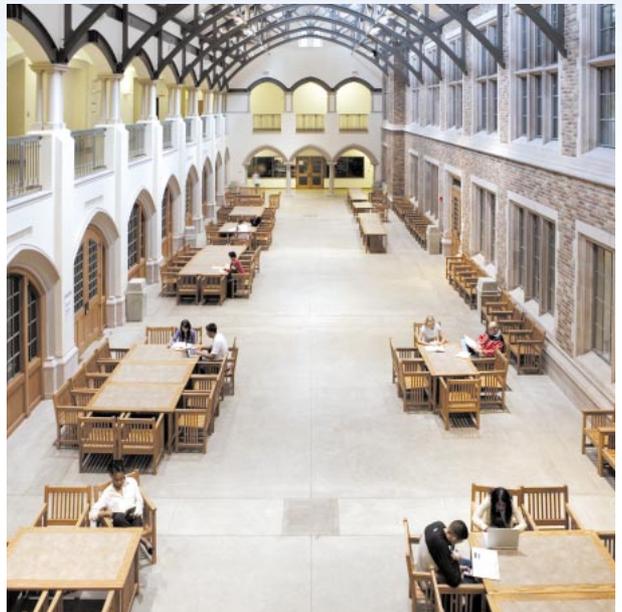
Back to Position A



Maintains almost the same position.

### Super Silent Operation of 35dB or lower

The mechanical noises of a belt-driven PTZ camera are absent. In fact, the operating noise as measured from a mere 1m away from our camera amounted to a quiet approx. 35dB. This makes it ideal for usage in locations where noise should be avoided, such as hospitals, museums, libraries and offices.



### Super Durability and Reliability

Direct Drive is a very simple mechanism. The number of parts in the Direct Drive is far less than that of the belt-driven PTZ, so one can expect the durability to be approximately 160%. And since the Direct Drive is completely belt-less, there is no possibility of malfunction due to belts that will break on a regular basis. The simplified mechanism greatly reduces the chances of malfunction and increases reliability.



## 36x Optical Zoom for Incredible Magnification (TK-C686E/C686WPE)



36x

The TK-C686E and TK-C686WPE come with a powerful 36x optical zoom to provide incredible magnification with full optical quality. It is powerful enough to allow identification of a face or a license plate located far away. (27x zoom for the TK-C685E/C685WPE)

## Quick and Easy Installation and Maintenance

Thanks to its "One-touch lock" mechanism, installation is extremely easy. Simply insert the camera unit to the bracket, and that's all, greatly reducing time and cost for installation and maintenance.

### TK-C686E/C685E

(Eg.: Ceiling recessed installation)



1 Install the ceiling bracket (option) on the ceiling, and screw the camera's ceiling mount section onto it at 3 points.



2 Push the camera straight up into the ceiling mount section. If done correctly, you will hear a click as it locks into place.



3 Cover the unit with the Ceiling Panel (option), and you're finished.



4 To remove, press the Lock buttons located on both sides of the camera to release the locks, then pull the camera straight down.

### TK-C686WPE/C685WPE

(Eg.: Wall mount installation)



1 Insert the camera's mounting hole over the wall's anchor bolt, and tighten the nut to affix. (Bolt in 4 locations to secure the camera.)



2 Run the cable through the inside of the arm and then cap it, and you're finished.

## Proven Reliability with JVC Standard

Assurance of reliability comes not only from JVC's long years of experience and solid track record, but also by inspecting every single product at our QC facility based on our strict quality standards. For all models, this includes grueling tests for Pan/Tilt and Zoom in/out movement accuracy, and for outdoor models, severe tests against water, dust, and shocks are applied to ensure stable performance that conforms to the IP66 Standard.

■ Tests like these are applied to each and every model. Count on durability.

**2**  
million times  
of zooming

**4**  
million times  
of focusing

**5**  
million times  
of panning

Numbers are guides and vary depending on the usage conditions.

# ● Full-featured intelligent security camera for a variety of environments

## ExDR (Extended Dynamic Range) with Dual Shutter

Bright areas of a scene are shot with a high-speed shutter while dark areas receive normal exposure. Both sets of data are then combined to create a single, well-balanced image with light and dark areas perfectly exposed.



Bright outside area shot with a high speed shutter

Dark indoor area shot with a normal speed shutter

Well-balanced image with ExDR

## IR Cut Filter for Round-the-Clock Surveillance

The IR cut filter automatically switches between ON and OFF according to the level of ambient light. In daytime it outputs a high-quality colour image, and at night the filter mechanism removes the IR filter to output black-and-white images with greater sensitivity. (When utilising IR lamps, an external trigger for night mode is recommended.)

## Privacy Mask for Protecting Intrusive Monitoring

Up to 8 masked areas can be set as hidden areas to protect subjects from invasion of their privacy.



Without Privacy mask

With Privacy mask

## Electronic Sense-Up for Low-Light Situations

Electronic sense up function provides higher sensitivity level for monitoring in dark locations by lengthening the exposure time automatically.

## CRT/LCD Selectable Display Mode

By choosing the display mode that matches the monitor being used, you'll get images with optimal brightness regardless of whether you are using a CRT or LCD monitor.

## Image Stabiliser (TK-C686E/C686WPE)

Even in cases where the camera is shook by the wind or vibrations coming from its surroundings, the Image Stabiliser function helps reduce image blur. This function is invaluable in outdoor setups, such as Pendant mount style installations which are especially susceptible to the effects of vibrations.

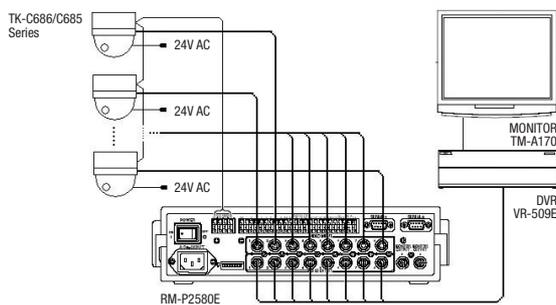
## Motion Detection and Tracking



This function outputs an alarm whenever movement is detected within a pre-specified area of the image. It can also be used to automatically track a moving object or person for about 30 seconds.

(The red frame of the detected subject is shown only in Demonstration Mode.)

## ■ Multi-Drop Communication System with RM-P2580E



Model name	Product name	Qty
TK-C686/C685	PTZ camera	8
RM-P2580E	Remote Control Unit	1
VR-509E	DVR	1
TM-A170	Monitor for DVR	1

## ■ Optional Accessories

For TK-C686E/C685E

• WB-S682U Wall mount

• WB-S685U Ceiling recessed bracket

• WB-S681U Pendant mount pole



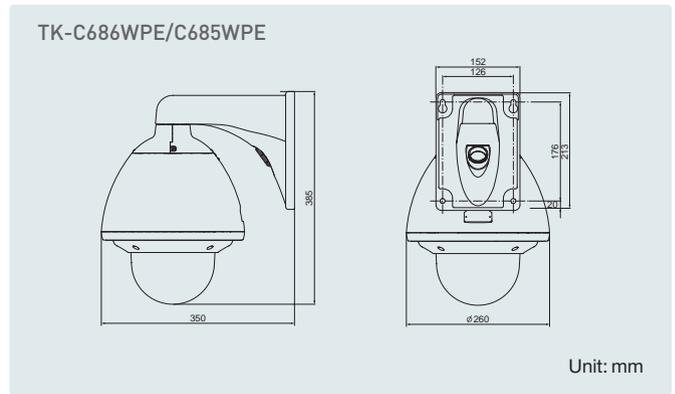
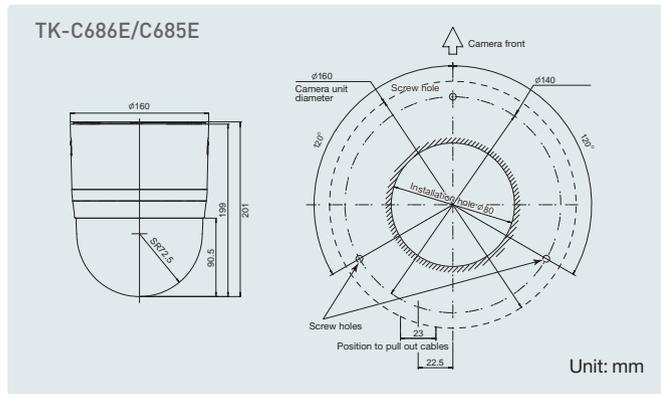
For TK-C686WPE/C685WPE

• EB-S684U Outdoor pendant mount pole

RM-P2580E Remote Control Unit



## ■ Dimensions



## ■ Specifications

	TK-C686E	TK-C685E	TK-C686WPE	TK-C685WPE
<b>CAMERA</b>				
Image device	1/4" Interline CCD			
Number of effective pixels	440,000 (752H x 582V)			
Sync system	Internal, Line lock			
Scanning system	Interlace			
Scanning frequency	15.625kHz (H), 50.0Hz (V)			
Video output	Composite video signal: 1.0V (p-p), 75ohms			
Video S/N ratio	50dB (Typ. AGC OFF), 48dB (Min. AGC OFF)			
Horizontal resolution	540 TV lines (Typ.), 520 TV lines (Min.)			
Minimum illumination (typical)	Colour mode: 0.5lx (25% video level, F1.6, AGC SUPER) 1.0lx (50% video level, F1.6, AGC SUPER) B&W mode: 0.04lx (25% video level, F1.6, AGC SUPER) 0.08lx (50% video level, F1.6, AGC SUPER)			
Iris control	Auto/Manual			
White balance	ATW (Narrow/Wide), AWC ATW Wide colour temperature range: 2300K to 10000K ATW Narrow colour temperature range: 3200K to 8000K			
Extended dynamic range	On/Off			
AES	1/50 to 1/10000 (8 steps)			
Backlight compensation	4 photometry areas selectable			
AGC	OFF/MID/HIGH/SUPER			
Sensitivity up	Off/x2, 4, 8, 16, 32, 64, 128			
Day/Night	IR Cut Filter On/Off			
Auto tracking	On/Off			
Private mask	8 positions in total			
Image Stabiliser	On/Off	-	On/Off	-
Display mode	CRT/LCD1/LCD2			
<b>LENS</b>				
Zoom ratio	36x optical (32x digital)	27x optical (32x digital)	36x optical (32x digital)	27x optical (32x digital)
Focal length	f=3.43mm to 122mm	f=3.43mm to 92.6mm	f=3.43mm to 122mm	f=3.43mm to 92.6mm
Max. aperture ratio	F:1.6 (f=3.43mm) to F:4.5 (f=122mm)	F:1.6 (f=3.43mm) to F:3.5 (f=92.6mm)	F:1.6 (f=3.43mm) to F:4.5 (f=122mm)	F:1.6 (f=3.43mm) to F:3.5 (f=92.6mm)
Max. close-range	Approx. 1.8m (TELE), Approx. 0.6m (WIDE)			
<b>MECHANISM (PTZ)</b>				
Panning	360° endless type			
Tilting	-5° to 185°			
Tilting speed	Approx. 0.04°/sec to 500°/sec			
Control protocol	JVC, Pelco P/D			
<b>GENERAL</b>				
Preset position	256			
Alarm	In x 6 / Out x 2			
Power supply	24V AC (50Hz/60Hz)			
Power consumption	1.3A		2.7A	
Operating temperature range	-10°C to 50°C, 0°C to 40°C (recommended)		-40°C to 50°C (always power on), -30°C to 40°C (recommended)	
Dust and water protection	-		IP66	
Dimensions (WxHxD)	ø160mm x 201mm (H)		ø260mm (incl. housing) x 385mm (H: incl. bracket) x 350mm (D: incl. bracket)	
Weight	1.9kg		5.5kg	
Optional accessories	Wall mount bracket, Ceiling recessed bracket, Pendant mount pole		Outdoor pendant mount pole	

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Printed in Japan  
KCN-1853 TK-C686E/685E /TK-C686WPE/C685WPE  
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