



### 3x PTZ Series

**P3D-E48**

3x Pan/Tilt/Zoom Indoor Mini Dome Camera

**P3ID17-E48**

3x Pan/Tilt/Zoom Indoor Mini Dome Camera w/ 17 IR

### PT Series

**PD-E5343**

Pan/Tilt Indoor Mini Dome Camera w/ 4.3mm Lens

**PID17-E5343**

Pan/Tilt Indoor Mini Dome Camera w/ 4.3mm Lens w/ 17 IR

Also Available for 6.0mm Lens , PD-E5360 & PID17-E5360

## OPERATIONAL MANUAL

# INDOOR MINI DOME CAMERA

3x PTZ



**P3D-E48**  
**P3ID17-E48**

PT Only



**PD-E5343**  
**PID17-E5343**



PAL Version Also Available



Please read the Operational Manual  
before attempting to use this product.

REV081709

## FEATURES

### P3D-E48 & P3ID17-E48

- 1/4" Sony Super HAD CCD
- 480 TV Lines
- 17 IR LED – P3ID17
- IR Distance up to 30ft – P3ID17
- Pentax 3x Optical Zoom Lens  
f=2.8mm~7.3mm
- Pan Speed: 8°~80° per sec
- Tilt Speed: 8°~80° per sec
- Pan Angle 0°~355°, Tilt Angle: 0°~90°
- 32 Preset Points
- 1.0 Lux @ F2.0
- Protocols Selected by DIP Switch
- RS485 Interface
- 0~255 ID Address
- 12V DC, 1000mA

### PD-E5343 & PID17-E5343

- 1/3" Sony Super HAD CCD
- 530 TV Lines
- 17 IR LED – PID17
- IR Distance up to 30ft – PID17
- 4.3mm Fixed IR Lens\*  
Also Available for 6.0mm Lens
- Pan Speed: 8°~80° per sec
- Tilt Speed: 8°~80° per sec
- Pan Angle 0°~355°, Tilt Angle: 0°~90°
- 32 Preset Points
- 0.8 Lux @ F2.0
- Protocols Selected by DIP Switch
- RS485 Interface
- 0~255 ID Address
- 12V DC, 1000mA

\*IR Lens = IR Corrected Type Lens

## PACKAGE CONTENTS

- One (1) P3D-E48 / P3ID17-E48 / PD-E5343 or PID17-E5343 Camera
- One (1) Quick Installation Plate
- One (1) Signal-Power Cable
- One (1) Operational Manual



Quick Installation Plate



Signal-Power Cable

\* For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged.

## INSTALLATION

### Step 1:

#### Setting of Camera Position Code

Prior to installation, setup ID address and communication protocol of your camera first, then you can install it (refer to page 5 for more details). If resetting of ID or protocol is necessary after installation, please POWER-OFF the camera before resetting. The new setting will become valid after power is reapplied to the camera.

### Step 2:

On the Signal-Power cable, different wires have been labeled with its function: one for Video Output, one for RS485 input and one for 12V DC power input. Please follow these labeling for your correct wiring. There are two installation methods which you can choose from.

#### Method 1:

Decide the location where you want to install and then drill one hole with about 2 cm in diameter. Insert Signal-Power cable through this hole as below:



Then take out the quick-installation plate which is provided inside the accessory bag. Again insert the Signal-Power cable through any round holes of the quick-installation plate and screw it into the platform as shown in photo A below. Connect the Signal-Power cable to the camera. Twist the base of the dome camera into the quick-installation plate as shown in photo B. Refer to photo C for completed installation.



(photo A)



(photo B)



(photo C)

### Method 2:

Take out the quick-installation plate which is provided from the accessory bag. Screw the quick-installation plate into the location where you want to install, as shown below:



Connect the Signal-Power cable into the base of the camera as shown in photo A. There are two wiring direction choices which you can choose from, as shown in photo B and photo C.



(photo A)



(photo B)



(photo C)

Twist the base of the camera into the quick-installation plate, and the installation is done.



\*Make sure the camera is locked on securely to prevent any risk of the camera falling.

### Step 3:

#### Power On Test

- a. Before connecting the power, make a final check to confirm that the wiring is correct.
- b. Before installing this camera, please execute camera self-testing as following: when powering on the camera, it will automatically execute tilt up/down scanning, then pan horizontal scanning for around 20~30 seconds, then camera will stop at the Preset Point 1. Upon completion of these, the speed dome camera is in normal condition.

NOTE: This product is normally installed in an elevated position. Installation work should comply with local safe regulations. Proper safety precautions and protective measures shall be taken for installing the camera. For the personnel safety's sake, carry out power on and product test only after completion of installation work.

## USING IR REMOTE CONTROL

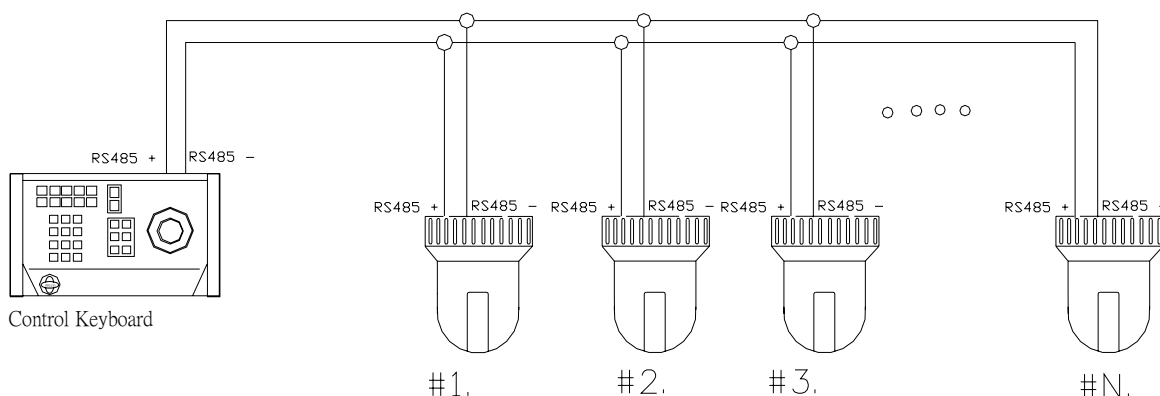
This camera has built-in IR Receiver, which will allow user to use our IR Remote Controller (Model: PTZ-IR10, optional device) to control the movement of Mini Speed Dome Camera. (The operation of such IR Remote Controller can be found on the user's manual of PTZ-IR10)

## RS485 WIRING METHOD

Two RS485 wiring methods can be used according to actual needs. We recommend the following wiring methods to avoid malfunction of RS485 control.

### 1. RS485 serial connection:

This method connects the dome cameras in sequential manner where the first camera connects to the second and then the second to the third, and so on until the last one is connected. A terminal resistance is connected to the last camera to form a closed loop. See the following illustration:

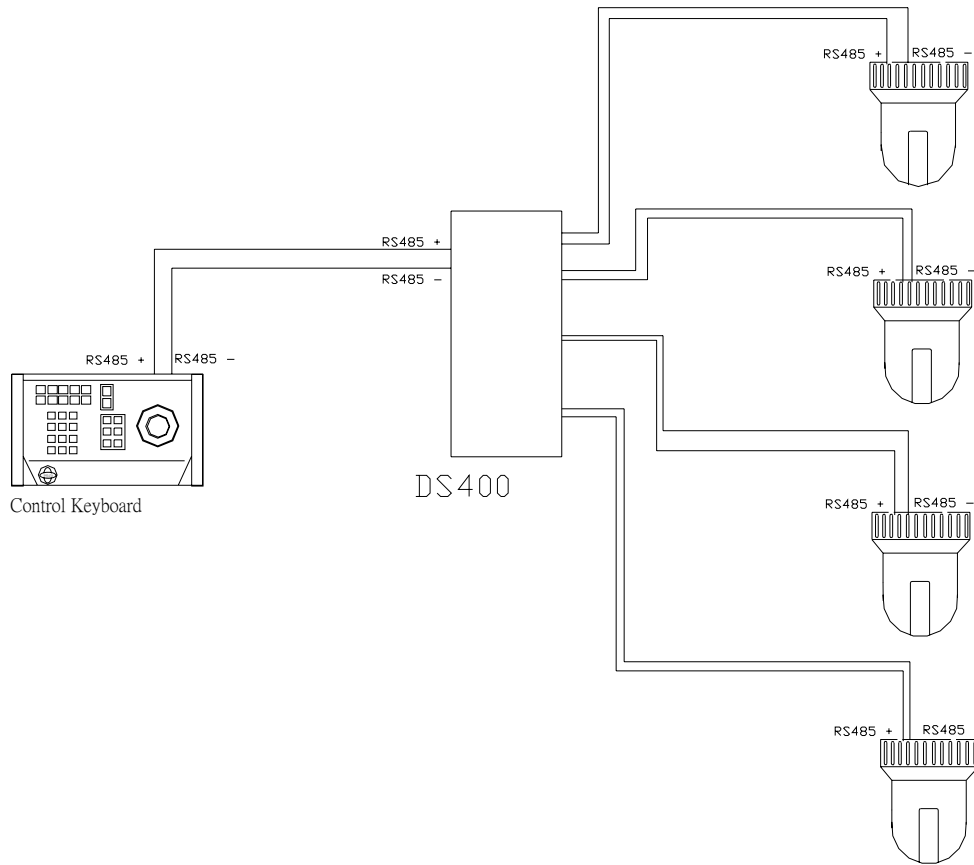


When using RS485 serial connection, the max. in one serial connection is to connect up to 32 pieces of speed dome. If over 32 pieces of speed dome, please use "RS485 Aster Connection" method together with our DS810 (8 port RS485 distributor) to diversify the number of speed domes in one single serial connection in order to make sure the stability of the complete control system.

### 2. RS485 Aster Connection:

This is the most common method in practical installation work. In the aster connection, if an RS485 distributor is not utilized, it is likely to have reflected signal and to lower the ability of resisting interference. This may cause malfunctioning of the control signal that results in faulty control of the camera or unstopping operation when the control signal is stopped.

In such cases, we recommend to use our DS810 RS485 Distributor. This product can effectively convert the aster connection into the correct connection method that meets RS485 requirements to acquire optimal communication reliability. See the following diagram for reference.



## COMMUNICATION PROTOCOL & ID ADDRESS SETTING

**NOTE:** Please POWER-OFF the camera before resetting. The new setting will become valid after power is reapplied to the camera.

Open the plastic cover (as shown below) on the back-side of the camera.



You will find one 10-PIN DIP SWITCH. SW9/10 is for setting the camera's protocols.

### 1. Setting for Communication Protocol

	DIP 9	DIP 10
OKINA USA	ON	ON
PELCO P-9600	OFF	ON
PELCO P-4800	ON	OFF
PELCO D-2400	OFF	OFF

2. Setting the ID address of the camera is shown below:  
Please change DIP SWITCH SW1~8 as below:

	1	2	3	4	5	6	7	8
1	<input type="checkbox"/>							
2		<input type="checkbox"/>						
3	<input type="checkbox"/>	<input type="checkbox"/>						
4			<input type="checkbox"/>					
5	<input type="checkbox"/>		<input type="checkbox"/>					
6		<input type="checkbox"/>	<input type="checkbox"/>					
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
8				<input type="checkbox"/>				
9	<input type="checkbox"/>			<input type="checkbox"/>				
10		<input type="checkbox"/>		<input type="checkbox"/>				
11	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				
12			<input type="checkbox"/>	<input type="checkbox"/>				
13	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
16					<input type="checkbox"/>			
17	<input type="checkbox"/>				<input type="checkbox"/>			
18		<input type="checkbox"/>			<input type="checkbox"/>			
19	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			
20			<input type="checkbox"/>		<input type="checkbox"/>			
21	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			
22		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			
23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			
24				<input type="checkbox"/>	<input type="checkbox"/>			
25	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>			

	1	2	3	4	5	6	7	8
26		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			
27	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			
28			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
29	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
30		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
32						<input type="checkbox"/>		
33	<input type="checkbox"/>					<input type="checkbox"/>		
34		<input type="checkbox"/>				<input type="checkbox"/>		
35	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>		
36			<input type="checkbox"/>			<input type="checkbox"/>		
37	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>		
38		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		
39	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		
40				<input type="checkbox"/>		<input type="checkbox"/>		
41	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		
42		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
43	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
44			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
45	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
46		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
47	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
48					<input type="checkbox"/>	<input type="checkbox"/>		
49	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		
50		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		

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51	○	○			○	○		
52			○		○	○		
53	○		○		○	○		
54		○	○		○	○		
55	○	○	○		○	○		
56				○	○	○		
57	○			○	○	○		
58		○		○	○	○		
59	○	○		○	○	○		
60			○	○	○	○		
61	○		○	○	○	○		
62		○	○	○	○	○		
63	○	○	○	○	○	○		
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65	○						○	
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67	○	○					○	
68			○				○	
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72				○			○	
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76			○	○			○	
77	○		○	○			○	
78		○	○	○			○	
79	○	○	○	○				
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84			○		○		○	
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192							○	○
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218		○		○	○		○	○
219	○	○		○	○		○	○
220			○	○	○		○	○
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222		○	○	○	○		○	○
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224						○	○	○
225	○					○	○	○

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226		○				○	○	○
227	○	○				○	○	○
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232				○		○	○	○
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235	○	○		○		○	○	○
236			○	○		○	○	○
237	○		○	○		○	○	○
238		○	○	○		○	○	○
239	○	○	○	○		○	○	○
240					○	○	○	○
241	○				○	○	○	○
242		○			○	○	○	○
243	○	○			○	○	○	○
244			○		○	○	○	○
245	○		○		○	○	○	○
246		○	○		○	○	○	○
247	○	○	○		○	○	○	○
248				○	○	○	○	○
249	○			○	○	○	○	○
250		○		○	○	○	○	○

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251	○	○		⊗	○	○	⊗	⊗
252			○	⊗	○	○	⊗	⊗
253	○		○	⊗	○	○	⊗	⊗
254		○	⊗	⊗	○	○	⊗	⊗
255	⊗	○	⊗	⊗	○	○	⊗	⊗

## RS485 COMMON TROUBLESHOOTING

Error	Possible Causes	Solutions
Able to do self-test on initial power on, but is unable to be controlled	1. Keyboard's (or DVR's) communication protocol is not consistent with camera's	Alter protocols for consistency
	A. Keyboard's (or DVR's) baud rate is not consistent with camera's	Alter baud rates for consistency
	B. RS485 polarity error	Switch polarity of RS485 pins
	C. RS485 bad wire connection	Re-check RS485 wiring
Control of camera is working, but not smoothly	1. Keyboard/DVR is too far from cameras	Check wires for error. Or set terminal resistance at the last camera.
	2. RS485 has a disconnected wire	Reconnect RS485 cable
	3. Too many cameras are paralleled	Install an RS485 distributor
Cannot power on	1. Contact of 12V DC power is not good.	1. Check the connection of 12V DC
	2. the Voltage of 12V DC adapter is too low.	2. Check whether the voltage of power input to speed dome is 12V DC, if not, please use the adapter which is more than 12V DC voltage (but no more than 16V DC, otherwise it will burn the camera)

\*Terms used for button functions may vary depending on the manufacturer of the controller

## OPERATION SETUP INFO

### 1. Select to Control the Speed Dome Camera:

Enter: **CAM** + **NNN** + **ENTER**

Display: **CAMERA ID : NNN**

NNN: Users may enter one number from Number 0 ~255 as the number of the speed dome cameras. The speed dome camera you select to control appears on the LCD screen after one number is entered.

### 2. Set up the Speed Dome Preset Points:

A. Enter: **SET** + **NN** + **ENTER**

B. Display: **SET NO : NNN**

C. NNN: Users may enter one number from Number 1 ~ 32 as preset points number.

D. Operation: Move the speed dome to the location you want to set up and set the preset point based on the method used for Point A. The operation method applies to other preset points setting.

Call the Speed Dome Preset Points:

Enter: **PRESET** + **NN** + **ENTER**

Display: **PRESET NO : NN**

NN: Preset points, No. 1~32

### 3. Delete the Speed Dome Preset Points:

Description: This function is designed to clear the preset points by following the operation procedure:

Enter: **PRESET** + **NN** + **OFF**

Display: **PRESET NO : NN**

NN: Preset points to be deleted, No. 1~32

### 4. Set up Preset Point Group: (Do not apply to PELCO Protocol)

Description: This function is designed to scan the preset points in order. Each group is allowed to set up 16 preset points for the moving speed and retention time.

Enter: **SHOT** + **N** + **ON**

If you choose OKINA USA Protocol for one of our speed dome cameras, you may set up 4 preset point groups by following the operation procedure:

A. Press [ SHOT ] :

LCD displays: **SHOT NO : 000**

Enter the preset point groups, No. 1 and press the **ON** key.

LCD displays: **Track: 1 Sum: 0**

B. Press [ TELE ] :

LCD displays: [ NO: 1 POINT: 0 ]

Enter one of the preset points of the group ranging from No. 1-32.

C. Press [ TELE ] : Set up the moving speed

LCD displays: [ No: 1 Speed: 0 ]

The speed represents the moving speed between two preset points and is divided into 1-8 phase. (1: fastest speed; 8: slowest speed)

D. Press [ TELE ] : Set up the retention time

LCD displays: [ No: 1 Time: 0 ]

The displayed time is the retention time of each preset point and can be set from 1 to 99 seconds.

E. Press the [ TELE ] key to go back to step B to set up next point. Press [ OFF ] to end and save your setting.

### 5. Start Preset Point Group Scanning: (Do not apply to PELCO Protocol)

Enter: [SHOT] N [ENTER]

LCD displays: **SHOT NO : XXX**

XXX: No. 1 preset points group scanning. Complete the preset point setup described in Step 4. before starting preset point group scanning.

## 6. Horizontal Revolution of 2 Preset Points (Do not apply to PELCO Protocol)

Description: This function is designed to set the speed dome at horizontal revolution in a small zone.

Enter: Press [AUTO].

LCD displays: 1ST NO:

Enter a start point for Auto Pan scanning. The start point should be one of the preset points. Complete preset point setting first by following Step 2.

Press the [ON] key to complete the start point setting.

LCD displays: 2ND NO :

Enter a stop point for Auto Pan scanning. The stop point should be one of the preset points. Complete preset point setting first by following Step 2.

Press the [OFF] key to complete the stop point setting. The speed dome will begin to move at horizontal revolution immediately.

PS: If the start point and the stop point are set at the same preset point, the speed dome will move at 360° horizontal revolution. The start point and the stop point should be selected from one of the 1-32 preset points.

## 7. Home Position Auto Returning (NEW)

Description: This function is designed to set the speed dome to auto return to Preset point 1 (required) as Home Position at every 5 minute.

To activate:

Enter: PRESET + 85 + ENTER

To deactivate:

Enter: SET + 85 + ENTER

## 8. Extended Command

N Value No.	Control Object	Keyboard Operation Definition	
		[SET]+N+[ENTER]	[PRESET]+N+[ENTER]
92	PAN SCAN SETTING		START point
93			STOP point
97	Preset Tour(preset 1~16 point)	OFF	ON
99	Auto PAN Scan	OFF	ON

## SPECIFICATION

	3x PTZ		PT Fixed Lens	
<b>Model</b>	<b>P3D-E48</b>	<b>P3ID17-E48</b>	<b>PD-E5343</b>	<b>PID17-E5343</b>
<b>CCD Sensor</b>	1/4" Sony Super HAD CCD		1/3" Sony Super HAD CCD	
<b>Picture Pixels</b>	NTSC: 410,000 pixels / PAL: 470,000 pixels			
<b>Resolution</b>	480 TV Lines		530 TV Lines	
<b>Minimum Illumination</b>	1.0 Lux @ F2.0		0.8 Lux @ F2.0	
<b>Lens</b>	Pentax 3x Optical Zoom Lens f=2.8mm~7.3mm		4.3mm Fixed IR Lens* Also Available for 6.0mm Lens	
<b>IR LED</b>	N/A	17 IR LED	N/A	17 IR LED
<b>IR Distance</b>	N/A	30ft / 10m	N/A	30ft / 10m
<b>Video Output</b>	1.0Vp-p, 75 Ohm, BNC Connector			
<b>Synchronization</b>	Internal			
<b>Scanning System</b>	2:1 Interlace Scanning			
<b>S/N Ratio</b>	More than 48dB			
<b>Electronic Shutter</b>	Auto / NTSC: 1/60x~1/100,000s / PAL: 1/50x~1/110,000s			
<b>Back Light</b>	Auto			
<b>White Balance</b>	Auto / 2500°K ~ 9500°K			
<b>Pan Scan/Angle</b>	0° ~ 355°			
<b>Tilt Scan/Angle</b>	0° ~ 90°			
<b>Manual Pan Scan Speed</b>	8°~80° per sec vari-speed			
<b>Manual Tilt Scan Speed</b>	8°~80° per sec vari-speed			
<b>Pan Scan Speed for Preset</b>	80° per sec vari-speed			
<b>Tilt Scan Speed for Preset</b>	80° per sec vari-speed			
<b>Preset Points</b>	32 Preset Points			
<b>Communication</b>	RS485 Interface			
<b>ID Address</b>	0~255 addresses			
<b>Power Supply</b>	12V DC, 1000mA			
<b>Operation Temperature</b>	14°F ~ 122°F / -10°C ~ 50°C			
<b>Humidity</b>	0~95% RH			

PAL Version Also Available

\*Specifications are subject to change without notice

\*IR Lens = IR Corrected Type Lens

PTZ = Pan / Tilt / Zoom

PT = Pan / Tilt

## SAFETY PRECAUTIONS

1. Select a proper location and use safe hoist for installing speed dome cameras.
2. Confirm that the hoist is capable of lifting to the installation position.
3. Proper protective measures must be provided in the hoist, for protecting engineering staffs.
4. Confirm that power supply is 110V/220V. Ensure safety precautions for preventing electric shock.

## PRECAUTIONS ON INSTALLATION

### 1. Basic requirements for installation

Follow local regulations about installation safety request.

Check out if accessories are complete. Optional accessories are required for different installation sites. Please contact your local distributors for proper installation accessories, so that the camera could be installed safely without causing danger.

Check if the installation location is of sufficient height.

Check if the installation location is strong enough for supporting cameras. Make sure installation spots (ceiling or wall) is of sufficient strength to support the camera and bracket without immediate danger of falling.

### 2. Cable standards

Coaxial cable for image signal:

Select proper cable length for your installation distance. Recommended spec. is as follows:

- a. RG59/U: 750ft (230 meters)
- b. RG61/U: 1000ft (305 meters)
- c. RG11/U: 1500ft (457 meters)

### 3. RS485 Cable

Please comply with RS485 wiring standards and select proper RS485 cable. Improper cable may result in RS485 communication transmission error, which may cause speed dome cameras to react incorrectly. Please pay much attention to this prior to installation.

When thinner or lower anti-interference RS485 cable is used for connecting the camera, the maximum transmission distance may be shortened and vice versa.

Standard rule for RS485 transmission distance:

When using 20AWG (Belden 8760) **Shielded Twisted Pair Cable**, different control Baud Rate will have different transmission distance performance, see table:

Baud rate	Max. Transmission Distance
2400	1200 meters
4800	1000 meters
9600	800 meters

- ### 4. Remove protection materials before supplying power to the camera, so as to prevent it from faulty operation or causing mechanical errors.



## IMPORTANT NOTE

#### 1. Never point the camera toward the sun

Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.

#### 2. Handle this camera with care

Avoid any shock or bumping of the camera. Improper handling could damage the camera.

#### 3. Requires a proper operating environment

This camera is designed for outdoor or indoor use. The allowable temperature range for operation of this camera is between 14°F ~ 122°F / -10°C ~ 50°C.

#### 4. Clean the front face to the pick-up device

It is recommended that the pick-up device surface be cleaned before lens installation or whenever the lens is changed. Cleaning should be done by using a chamois, a very fine soft cloth, lens tissue, or cotton tipped applicator and ethanol to carefully remove any fingerprint or dust.

## 5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specifications). Camera must be connected to a surge protector at all times. For the safety of the engineering staffs, apply power only upon completion of installation.

## 6. Objects and liquid entry

Never push objects of any kind into this camera as this may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the video product.

## 7. Servicing

Do not attempt to service this video product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

## 8. Damage requiring service

Unplug this video product from the wall outlet and refer service to qualified servicing personnel under the following conditions:

- a. When the power supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the video product.
- c. If the video product has been dropped or the cabinet has been damaged.
- d. When the video product exhibits a distinct change in performance.



## WARRANTY

OKINA USA products are covered under warranty for one year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

### 1. Camera sticker is removed

If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

### 2. Camera is modified in any way

If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

## OPTIONAL ACCESSORIES



Wall Mount Bracket  
MB-E5D



Network IP Base Server  
NIPD-EB



Keyboard Controller  
PTZ-KB10



IR Remote Controller  
PTZ-IR10