CONTENTS

Contents and specifications are subject to change without notice.

>>1

SECTION 1 INTRODUCTION

<u>1.1 Precautions</u>

1). Opening and repairing of the dome camera should only be done by authorized service person.

2). Avoid crashing violently or rude handling during transportion.

3). Install the mount for the dome camera at desired position.
   Note: the mount position should be solid enough.

4). Input voltage is 12V for 110V mains, while 24V for 220V mains..

>>2

SECTION 2 DIP SWITCH SETTING

Before installing the dome drive, check the DIP switches, configure the receiver address, communication protocol, and baud rate setting. Figure 1 shows switches position and default settings. SW1 switches(1bit) and SW2 switches(1,2, and 7 bit) are set to the ON position. For normal user, setting switches to default position is enough.

2.1 DIP Switch Introduction

Refer to the following sections to set the dome address, baud rate, and communication protocol type.

Figure 1 Switch Position

2.2 DIP Switch Setting

1.The dome camera can be controlled via various communication protocols by setting SW1 switches(1, 2, 3,and 4) and operate at 1200bps, 2400bps,4800bps,9600bps and 19200bps baud rate by setting SW1 switches(5, 6, 7, and 8). Refer to Table B for communication protocol and baud rate settings, pay attention not to set the switches to reserved position. Figure 2 shows the default settings for the DIP switches.
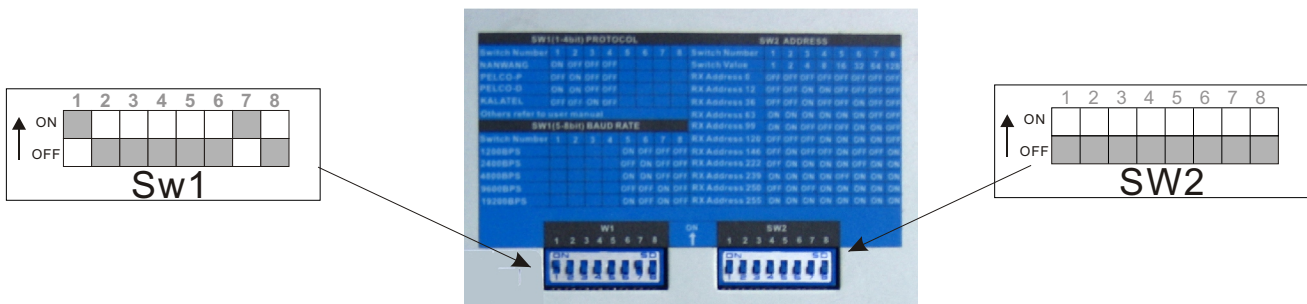

Figure 2   Default settings for the DIP switches

>> 3

Communication Protocol & Baud Rate Setting:

SWITCH 1 SETTING							
POS	1	2	3	4	DESCRIPTION		
COMM PTOL	ON	OFF	OFF	OFF	Reserved for future use		
	OFF	ON	OFF	OFF	PELCO-P		
	ON	ON	OFF	OFF	PELCO-D		
	OFF	OFF	ON	OFF	KALATEL		
	ON	OFF	ON	OFF	Reserved for future use		
	OFF	ON	ON	OFF	Reserved for future use		
	ON	ON	ON	OFF	Reserved for future use		
	▪ ▪ ▪ ▪				▪ ▪ ▪ ▪		
POS	DESCRIPTION			5	6	7	8
BAUD RATE (BPS)	1200			ON	OFF	OFF	OFF
	2400			OFF	ON	OFF	OFF
	4800			ON	ON	OFF	OFF
	9600			OFF	OFF	ON	OFF
	19200			ON	OFF	ON	OFF
	Reserved for future use			OFF	ON	ON	OFF
	Reserved for future use			ON	ON	ON	OFF
	▪ ▪ ▪ ▪				▪ ▪ ▪ ▪		

2. SW2 Dome Address Setting

Set the SW1 switches for the address of the dome camera Refer to below table for detail address settings, maximum number of dome address is 255.

Note: "AB CODE " of dome cameras can be controlled only with baud rate at 9600bps and protocol of PELCO-D. This is for network/IP dome cameras.

DOME ADDRESS	SWITCH 2 SETTING							
	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
°°°	°°°	°°°	°°°	°°°	°°°	°°°	°°°	°°°
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

SECTION 3   INSTALLATION

3.1 Accessories For Installing dome Cameras

The dome camera has four types of mountins: pipe pendant mount, surface mount, wall mount and   in-ceiling mount. Please refer to the below table for detailed accessories of respective mountings.

Mounting Type	Part Name	Part Model	Qty	Unit	Remark
Surface Mount	Dome Drive		1	pc	
	Back board		1	pc	
	Acrylic Dome with Trim Ring		1	pc	
	9 Hole of Pin		1	Set	
	6 Hole of Pin		1	Set	
	5 Hole of Pin		1	Set	
In-Ceiling Mount	Dome Drive		1	pc	
	Back Box		1	pc	
	Lower Dome		1	pc	
	9 Hole of Pin		1	Set	
	6 Hole of Pin		1	Set	
	5 Hole of Pin		1	Set	
Wall Mount	Dome drive		1	pc	
	Back Box		1	pc	
	Lower Dome		1	pc	
	Bracket		1	pc	
	9 Hole of Pin		1	Set	
	6 Hole of Pin		1	Set	
	5 Hole of Pin		1	Set	
Pipe Pendant Mount	Dome Drive		1	pc	
	Back Box		1	pc	
	Lower Dome		1	pc	
	Pipe		1	pc	
	Flange		1	pc	
	9 Hole of Pin		1	Set	
	6 Hole of Pin		1	Set	
	5 Hole of Pin		1	Set	

3.2 Parts picture for the dome camera

The shipping cartons contains three boxes. Check each box to make sure all parts are included..

Surface mount parts	In-ceiling mount parts
Dome Drive	
Back board	Back Box
Flange	Lower Dome(Acrylic lower dome with trim ring)
9 hole of pin	6 hole of pin

5 hole of pin

>> 7

Wall mount parts	Pipe pendant mount parts

Dome Drive

Lower Dome(Acrylic lower
dome with trim ring)

Back box

Bracket

Flange and Pipe

9 hole of pin

6 hole of pin

5 hole of pin

Figure 3   Installing parts picture

3.3 Dome camera installing parts dimensions

A. The Dome camera dimension drawing

230mm
96mm
100mm
127mm
153mm

198mm
170mm
115mm
100mm
156mm

Figure 4 Surface mount dimension   Figure 5 In-ceillling mount dimension

47mm
23mm
268mm
76mm
156mm
240mm

Figure 6 Pith for Wall mount dimension

B. The dome camera parts dimension drawing

126mm
φ157mm
110mm

3- φ5mm
φ145mm
60°
φ157mm
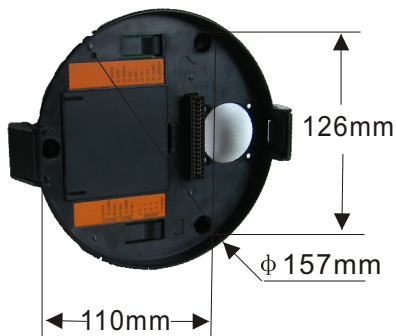
Figure7 Back board dimension   Figure 8 Surface mount drawing
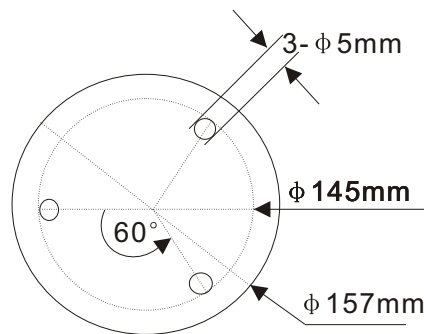
>> 9

198mm
170mm
117mm
217mm
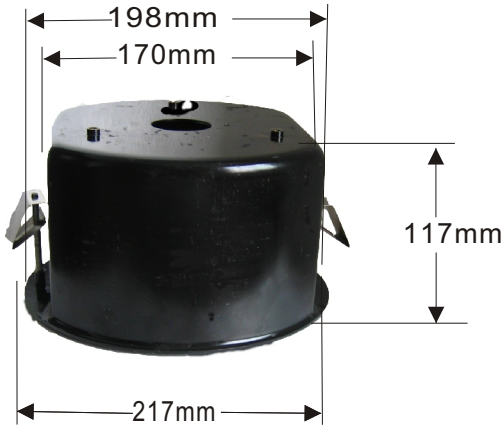
Figure 9 Back Box dimension

φ206mm
14mm
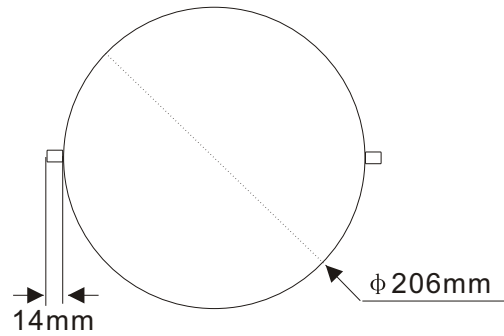
Figure 10 In-ceilling mount drawing

315mm
232mm
12mm
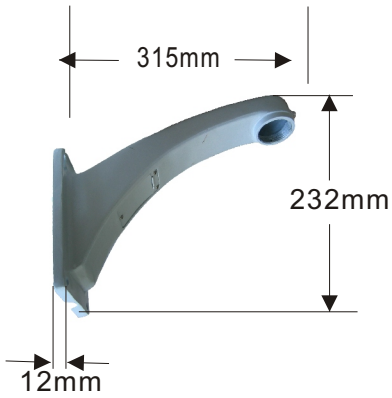
Figure 11 Bracket dimension

100mm
4-φ8mm
168mm
180mm
84mm
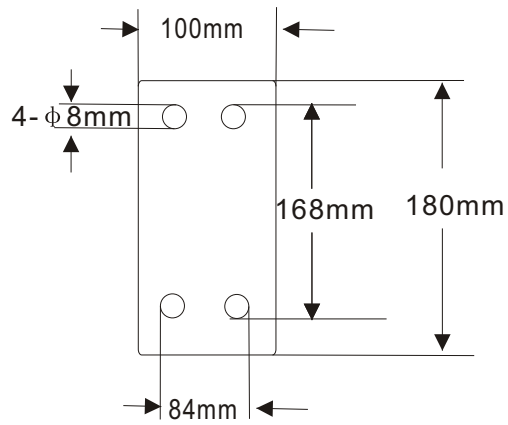
Figure 12   Pendant mount drawing
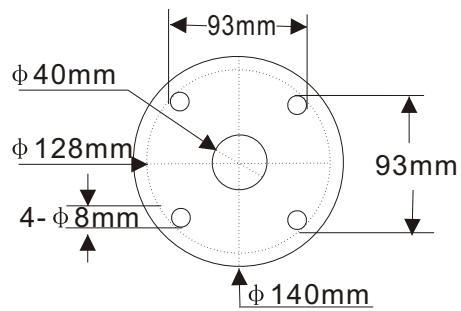
40mm
140mm
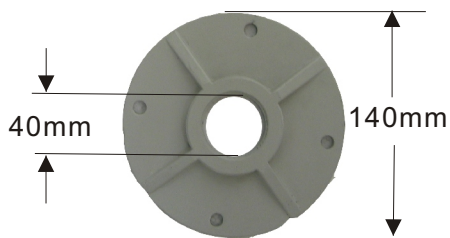
Figure 13 Flange of pipe pendant dimension

93mm
φ40mm
φ128mm
93mm
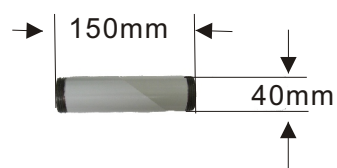4-φ8mm
φ140mm

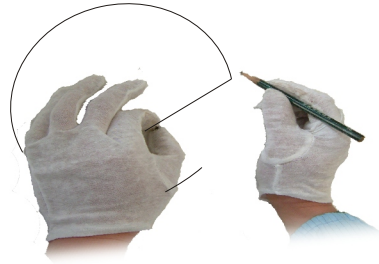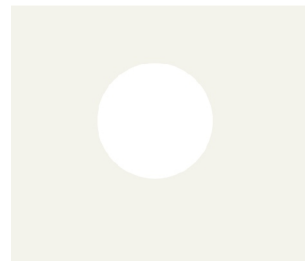Figure14 Pipe pendant dimension

260mm
40mm

150mm
40mm
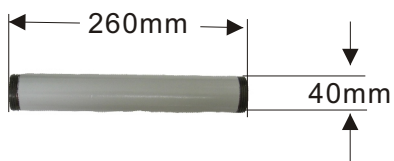
Figure 15 Pipe dimension

3.4 In-ceiling mount installation

Step 1-Preare in-ceiling

A. Locate the center point of the in-ceiling mounting location. Insert the compass tool into the hole. Draw a circle on the ceiling using the compass tool and a pencil.

B. Cut the circ le out of the ceiling tile.

Step 2-Install back box

>> 11

A. Take out bracket from back box. Insert the back box into ceiling, take out bracket from back box.

B. Install a safety chain/cable(not supplied) that can stand up to 32 pounds(14.6kg).

C. Press the thumb fastener and open the hinged door to the back box. Take out hole of pin.

>>12

D. Pull cables into the back box through the plastic panel. Connect cables to hole of pin.


E. Insert the hole of pin inside the back box. When finished, close the door to the back box and turn on the power. The LED will light up.

Important: If the LED does not light up, refer to the Trouble shooting section.

Step3-Install dome drive

 A. Set the DIP switches for SW1 and SW2 at the bottom of the dome drive for the appropriate receiver address ,communication protocol, and baud rate. Refer to the labels on the dome drive or DIP SWITCH SET at the beginning of this manual.
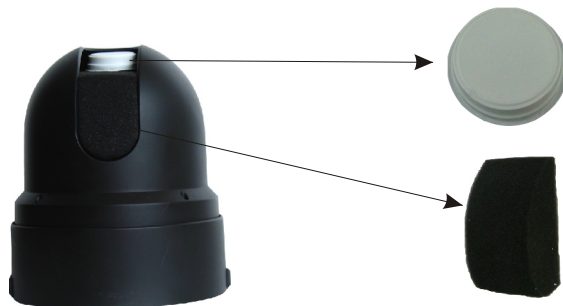
B. Take out cover of camera and sponge.

>> 13

C . Line up link card and faucet of the back board of the dome. Push the dome drive.

Step 4-Install lower dome

A. Take out a screw from lower dome. Link cables, screw, and lower dome.

B. Line up the snaps on trim ring with the mounting screws on the back box. Snap the trim ring into the plastic snap washers on the mounting screws.

>>14

3.5 Surface mount installation

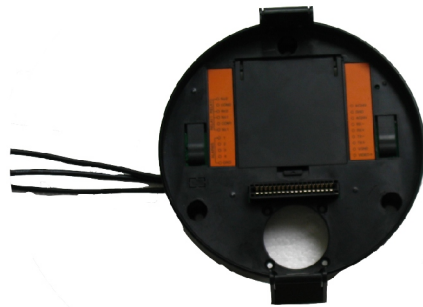Step 1- Install back board of surface mount

A. Locate the back board of the dome camera location. Drill a hole in the ceiling using a drill. Insert the screw and back board into the hole.

B. Press the thumb fastener and open the hinged door to the back box. Take out hole of pin.

C .Pull cables into the back box into the plastic panel. Connect cables to hole of pin.

>> 15

D. Insert the hole of pin inside the back board. When finished, close the door to the back board and turn on the power. The LED will light up.

Important: If the LED does not light up, refer to the trouble shooting section.

Step 2-Install dome drive

 A. Set the DIP switches for Sw1 and Sw2 on the bottom of the dome drive for the appropriate receiver address ,communication protocol, and baud rate. Refer to the labels on the dome drive or DIP SWITCH SET at the beginning of this manual.

B. Line up link card and faucet of the back board of the dome. Push the dome drive.

Step 3-Install dome flange

A. Snip a flake piece. Keep three flange Keep away from two clamps on the back board.

>>16

B. Push the flange of dome inside the back board. Take out the membrane on the clarty flake of the dome drive.

3.6 Pendant mount installation

 Note: When installing outdoors make sure the installation is properly sealed to keep moisture out.

A. Install the bracket for pendant dome. Refer to the instructions supplied with the bracket. Take out cables for the dome through the bracket.

 B. Press the thumb fastener and open the hinged door to the back box. Take out hole of pin.
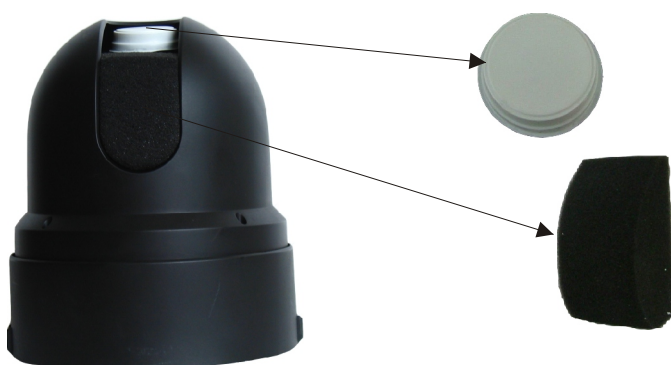
>> 17

C. Screw the metal cover into the bracket.

D. Connect cables to hole of pin. Insert the pin inside the back box. When finished, close the door to the back box and turn on the power. The LED will light up.

Important: If the LED does not light up, refer to the Trouble shooting section.

Step2-Install dome drive

A. Set the DIP switches for SW1 and SW2 at the bottom of the dome drive for the appropriate receiver address ,communication protocol, and baud rate. Refer to the labels on the dome drive or DIP SWITCH SET at the beginning of this manual.

Take out cover of camera and sponge.

>>18

B. Line up link card and faucet of the back board of the dome. Push the dome drive.

Step 3-Install lower dome.
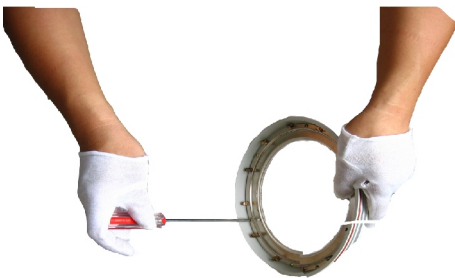
A. Take out a screw from lower dome. Link cables, screw, and lower dome.

B. Line up the mounting screw holes, and install the two mounting screws. Push the lower dome inside the back box.

>> 19

B. Screw the two mounting screws, and screws in the bracket.

3.7 Pipe pendant mount installation

Note: Same as wall mount installation.

>>20

Section 4 Troubleshooting and repair

4.1 Troubleshooting

PROBLEM	POSSIBLE REASON	SOLUTION
Power on normally but no video signal	Wrong wire connections	Check and reconnections
	Wrong or bad power source	Change power source
	Fuse broken.	Change fuse
	Power cable is disconnected	Reconnect power wiring.
Pan/Tilt not initializing when power on	Address, communication protocol, and baud rate is not correctly set	Check and set the parameters again.
	RS-485 cable is not correctly connected	Check and reconnect Rs485 cable
Video is Not stable	Video cable is wrong	Check and reconnect video
	Power source is wrong	Change the power source
Cortrol center is not stable	RS-485 wiring error	Check and reconnect the RS485

4.2 CAUTION

1. Avoid crash violently and rude handling during transportion.

2. Only authorized service persons are allowed to open and repair the dome.

3. Installation should be done very carefully, avoiding mechanical destroy, Do not power up the dome camera when installing.

4. Only the attached power adaptor can be used and should be placed as near as possible to the dome camera.

5. Keep away from heats and high voltage.

6. Don't expose the lens directly to strong light such as sun shine.

7.Do not use cameras if it goes beyond working temperature or humidity. Temperature range is

 -25°C to 75°C and humidity is less than 90%.