

Quick Start Guide

12X PTZ IP Camera

O2P12XH



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Welcome

Thank you for purchasing this Network camera!

This manual is designed to be a reference tool for your system.

Please read this manual carefully before operating the unit and retain it for future reference.

Should you require any technical assistance, please contact Speco Technologies Technical Support.

Important Safeguards and Warnings

1 . Electrical safety

All installation and operation here should conform to local electrical safety codes.

Use a certified/listed 12VDC Class 2 power supply only.

Please note: Do not connect two power supplying sources to the device at the same time; it may result in device damage! The product must be grounded to reduce the risk of electric shock.

Improper handling and/or installation could run the risk of fire or electrical shock.

2 . Environment

Heavy stress, violent vibration or exposure to water is not allowed during transportation, storage and installation.

This product should be installed in a cool, dry place away from direct sunlight and heat sources.

Do not install the product in extreme temperature conditions.

Do not expose the camera to electromagnetic radiation. Otherwise it may result in CMOS sensor failure.

Do not block any ventilation openings.

Do not allow water and liquid intrusion into the camera.

3. Operation and Daily Maintenance

Please shut down the device and then unplug the power cable before you begin any maintenance work.

Do not touch the CMOS sensor optic component. You can use a blower to clean the dust on the lens surface.

Always use the dry soft cloth to clean the device. If there is too much dust, use a cloth dampened with a small quantity of neutral detergent. Finally use the dry cloth to clean the device.

Please use a professional optical cleaning method to clean the enclosure. Improper enclosure cleaning (such as using cloth) may result in poor IR functionality and/or IR reflection.

The grounding holes of the product are recommended to be grounded to further enhance the reliability of the camera.

Dome cover is an optical device, please don't touch or wipe cover surface directly during installation and use, please refer to the following methods if dirt is found:

Stained with dirt

Use oil-free soft brush or hair dryer to remove it gently.

Stained with grease or fingerprint

Use oil-free cotton cloth or paper soaked with alcohol or detergent to wipe from the lens

center outward. Change the cloth and wipe several times if it is not clean enough.

Warning

This camera should be installed by qualified personnel only.

All the examination and repair work should be done by qualified personnel.

Any unauthorized changes or modifications could void the warranty.

Statement

This guide is for reference only.

Product, manuals and specifications may be modified without prior notice. Speco Technologies reserves the right to modify these without notice and without incurring any obligation.

Speco Technologies is not liable for any loss caused by improper operation.

Note:

Before installation, check the package and make sure that all components are included.

Keep the package material in case the camera needs to be sent back for service or repair.

Contact your rep or Speco customer service department immediately if something is broken or missing in the package.

1 Device Check

1.1 Installation Requirements

Basic Requirement

- All installation and operation here should conform to your local electrical safety codes.
- Before installation, please open the package and make sure all components are included. Please make sure the speed dome installation environment can meet your requirement. If there is special requirement, please contact your local dealer for more information.
- We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

1.2 Check Accessories

Before installation, check the package and make sure that all components are included. Contact your rep or Speco customer service department immediately if something is broken or missing in the package.

Accessory Name	Amount
Network Camera Unit	1
Quick Start Guide	1
Wall Mounting Bracket	1
Installation Accessories Bag	1
CD	1

2 Wall Mount Installation

2.1 Component Installation

The wall mount bracket and outdoor speed dome are shown in Figure 2-1.

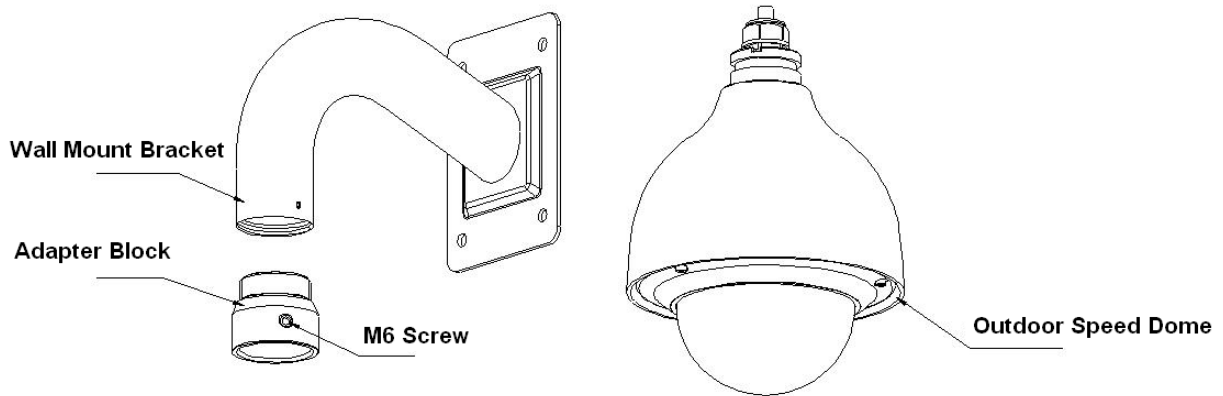


Figure 2-1

2.2 Wall Mount Installation Steps

2.2.1 Installation Environments

The wall mount speed dome can be installed on a hard surface wall in indoor or outdoor environments. Before the installation, please make sure:

- The wall is thick enough to install the expansion bolt.
- The wall can at least sustain the 8x weight of the speed dome, bracket and the accessories.

2.2.2 Installation Steps

- 1) Drill a hole of 50mm diameter for the cable exit in the installation wall.
- 2) In Figure 2-2, connect the adapter block to the internal thread of the wall mount bracket, until it reaches the end and then fix the set screw. Pull the intelligent speed dome composite cable through the adapter block and pull it out of the other end of the wall mount bracket. Line up the hook at the top of the external enclosure to the inside hole of the adapter block and then push it to the end, and then secure the three screws of the adapter block firmly. **Please note this step is very important. Please make sure the screws are firm, to reduce the risk of the camera falling**

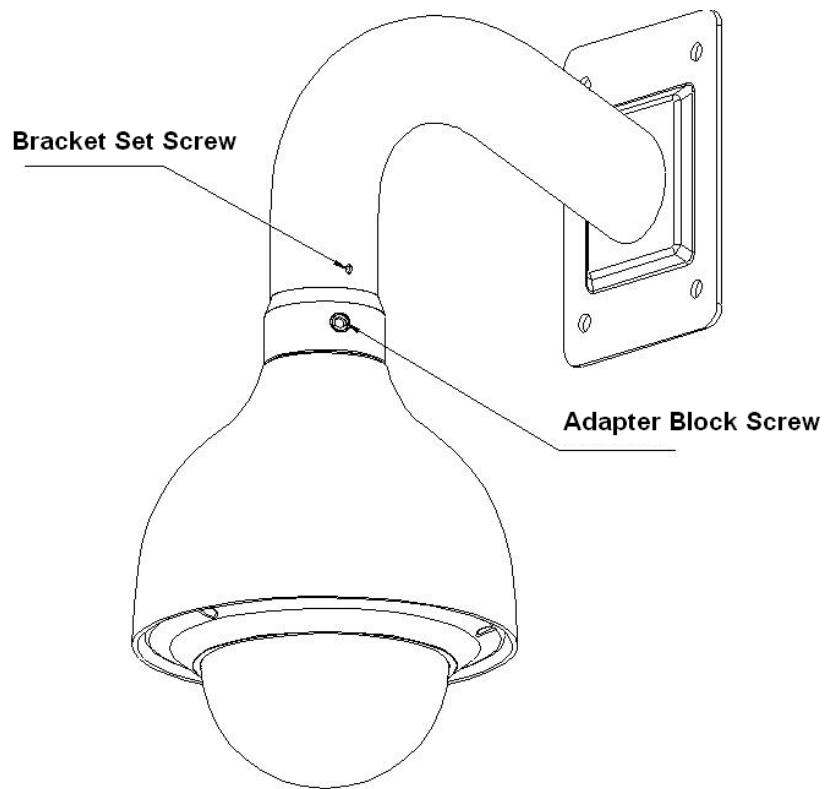


Figure 2-2

- 3) Drill holes in the wall according to the installation holes at the bottom of the wall mount bracket. Please make sure the cable exit of the bracket is facing the round hole on the wall. Connect the cable and then pull it through the hole in the wall. Use four hex screws and flat washer to secure the bracket on the wall. See Figure 2-3.

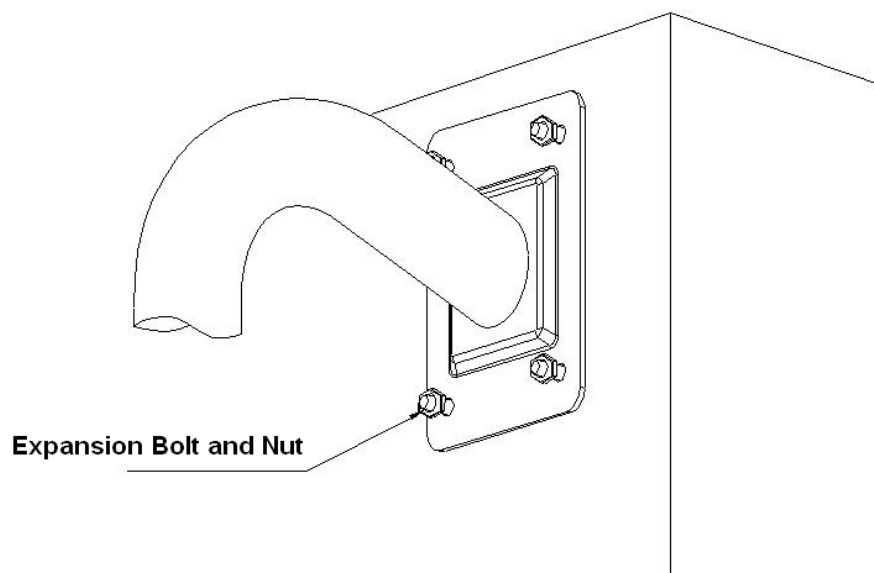


Figure 2-3

Now the installation is complete. See Figure 2-4.

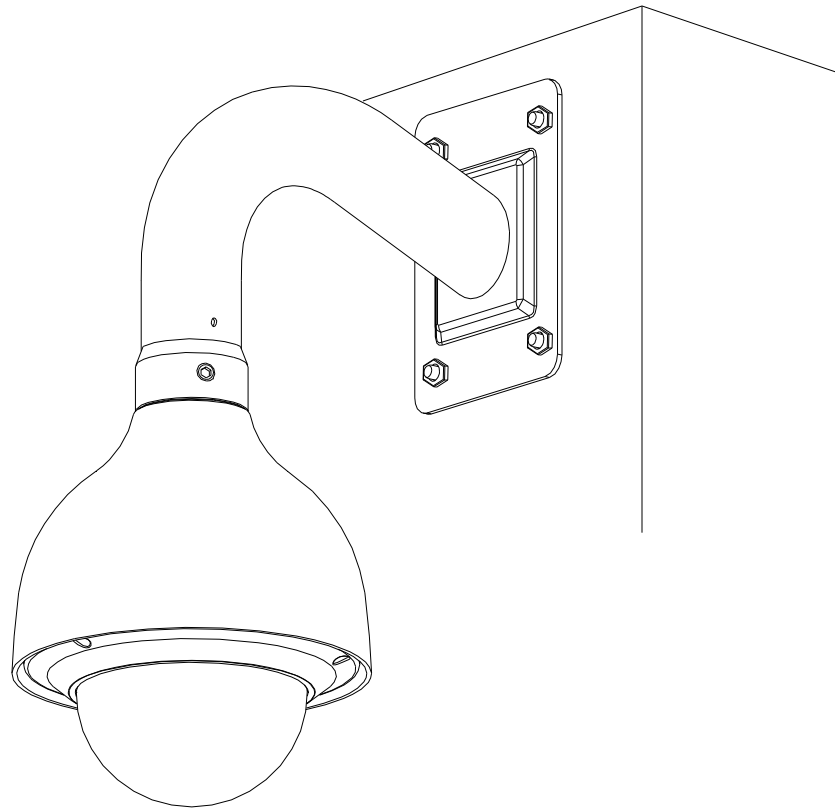


Figure 2-4

3 IP Scanner

3.1 Overview

IP Scanner can search for the device on the local network.

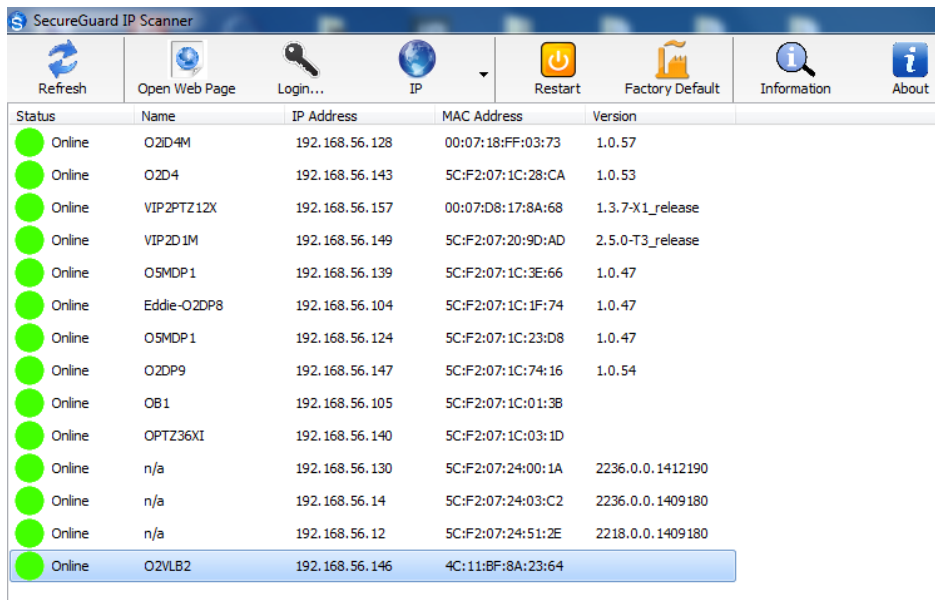
Please note that only devices that are on the same subnet can be discovered.

3.2 Operation

Open up IP Scanner.

Figure 3-1

In the device list, you can view the IP address, model number, and MAC address of each device. Select the applicable device and double click to open up the web viewer.



Status	Name	IP Address	MAC Address	Version
Online	O2ID4M	192.168.56.128	00:07:18:FF:03:73	1.0.57
Online	O2D4	192.168.56.143	5C:F2:07:1C:28:CA	1.0.53
Online	VIP2PTZ12X	192.168.56.157	00:07:D8:17:8A:68	1.3.7-X1_release
Online	VIP2D1M	192.168.56.149	5C:F2:07:20:9D:AD	2.5.0-T3_release
Online	O5MDP1	192.168.56.139	5C:F2:07:1C:3E:66	1.0.47
Online	Eddie-O2DP8	192.168.56.104	5C:F2:07:1C:1F:74	1.0.47
Online	O5MDP1	192.168.56.124	5C:F2:07:1C:23:D8	1.0.47
Online	O2DP9	192.168.56.147	5C:F2:07:1C:74:16	1.0.54
Online	OB1	192.168.56.105	5C:F2:07:1C:01:3B	
Online	OPTZ36XI	192.168.56.140	5C:F2:07:1C:03:1D	
Online	n/a	192.168.56.130	5C:F2:07:24:00:1A	2236.0.0.1412190
Online	n/a	192.168.56.14	5C:F2:07:24:03:C2	2236.0.0.1409180
Online	n/a	192.168.56.12	5C:F2:07:24:51:2E	2218.0.0.1409180
Online	O2VLB2	192.168.56.146	4C:11:BF:8A:23:64	

Figure 3-1 IP Scanner

4 Web Operation

This device supports viewing and management via a web browser on a PC.

4.1 Login and Main Interface

Open the browser and input network camera address in the address bar or double click the device in IP Scanner. See Figure 4-1.

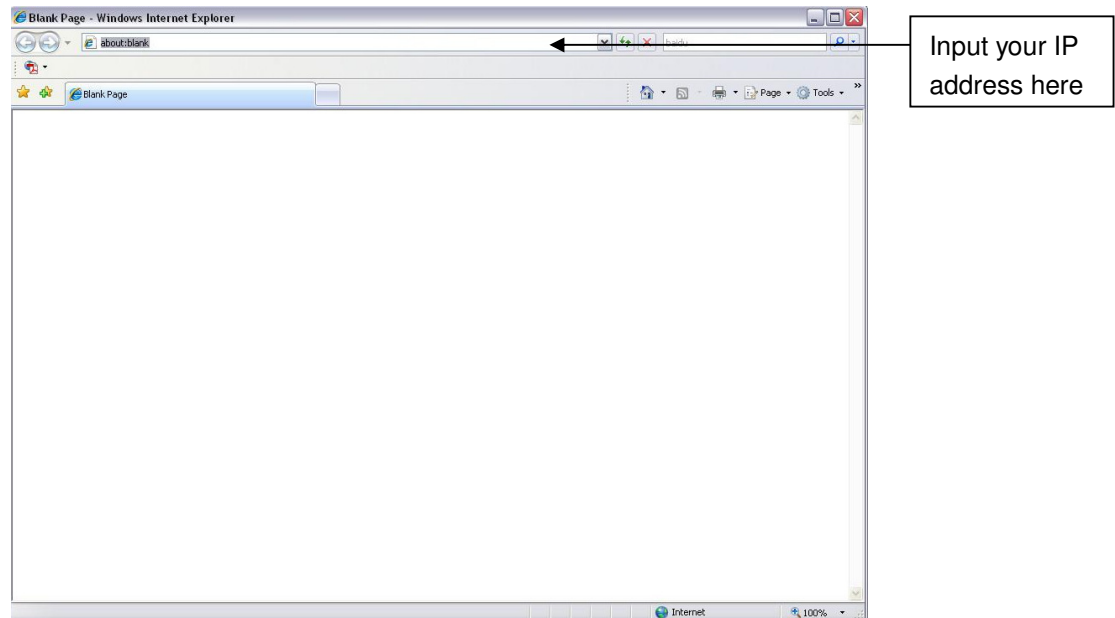


Figure 4-1 IP address

The login interface is shown as below. See Figure 4-2.

Please input your user name and password.

Default user name is **admin** and password is **1234**.

Note: For security purposes, please change the password after initial login.

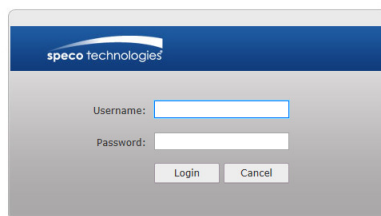


Figure 4-2 Web login

5 APPENDIX | Surge Protection

This device uses TVS lightning protection technology. It can effectively prevent damages from various pulse signals below 2000W, such as sudden lighting and surge. While maintaining your local electrical safety code, you still need to take necessary precaution measures when installing the speed dome in an outdoor environment.

- The distance between the signal transmission cable and high-voltage device (or high-voltage cable) shall be at least 50 meters (164 ft).
- Outdoor cable layout shall go under the penthouse if possible.
- For vast land, please use sealing steel tube under the land to implement cable layout and connect one point to the earth. Open floor cable layout should not be used.
- In areas prone to strong thunderstorms or near high sensitive voltage (such as near high-voltage transformer substation), you need to install additional high-power lightning protection device or lightning rod.
- The lightning protection and earth of the outdoor device and cable shall be considered under the lightning protection of the whole building and conform to your local national or industry standard.
- System shall adopt equal-potential wiring. The earth device shall meet anti-jamming and at the same time conform to your local electrical safety code. The earth device shall not short circuit to N (neutral) line of high voltage power grid or mixed with other wires. When connecting the system to earth alone, the earth resistance shall not be more than 4Ω and earth cable cross-sectional area shall be below 25 mm^2 .

6 APPENDIX II 12V DC Wire Gauge and Transmission

Distance Reference

The recommended max transmission distance is under the following environments: The wire diameter is fixed and the DC 12V power voltage loss rate is below 10%. For the device being supplied the DC power, the max allowed voltage loss rate is 10%. All the wires listed in the following sheet are copper wire. (Copper wire resistance $p = 0.0175\Omega \cdot \text{mm}^2/\text{m}$)

Feet (m) \ mm w	0.8000	1.000	1.250	2.000
5	122.13 (37.23)	190.83 (58.16)	298.17 (90.88)	763.31 (232.66)
10	61.06 (18.61)	95.41 (29.08)	149.08 (45.44)	381.66 (116.33)
15	40.71 (12.41)	63.61 (19.39)	99.39 (30.29)	254.44 (77.55)
20	30.53 (9.31)	47.71 (14.54)	74.54 (22.72)	190.83 (58.16)
25	24.43 (7.45)	38.17 (11.63)	59.63 (18.18)	152.66 (46.53)
30	20.35 (6.20)	31.80 (9.69)	49.69 (15.15)	127.22 (38.78)
35	17.45 (5.32)	27.26 (8.31)	42.60 (12.98)	109.04 (33.24)
40	15.27 (4.65)	23.85 (7.27)	37.27 (11.36)	95.41 (29.08)
45	13.57 (4.14)	21.20 (6.46)	33.13 (10.10)	84.81 (28.85)
50	12.21 (3.72)	19.08 (5.82)	29.82 (9.09)	76.33 (23.27)
55	11.10 (3.38)	17.35 (5.29)	27.11 (8.26)	69.39 (21.15)
60	10.18 (3.10)	15.90 (4.85)	24.85 (7.57)	63.61 (19.39)
65	9.39 (2.86)	14.68 (4.47)	22.94 (6.99)	58.72 (17.90)
70	8.72 (2.66)	13.63 (4.15)	21.30 (6.49)	54.52 (16.62)
75	8.14 (2.48)	12.72 (3.88)	19.88 (6.06)	50.89 (15.51)
80	7.63 (2.33)	11.93 (3.64)	18.64 (5.68)	47.71 (14.54)
85	7.18 (2.19)	11.23 (3.42)	17.54 (5.35)	44.90 (13.69)
90	6.78 (2.07)	10.60 (3.23)	16.56 (5.05)	42.41 (12.93)
95	6.43 (1.96)	10.04 (3.06)	15.69 (4.78)	40.17 (12.25)
100	6.11 (1.86)	9.54 (2.91)	14.91 (4.54)	38.17 (11.63)

7 APPENDIX III Wire Gauge Reference

Metric bare wire diameter (mm)	AWG	SWG	Bare wire cross section (mm ²)
0.050	43	47	0.00196
0.060	42	46	0.00283
0.070	41	45	0.00385
0.080	40	44	0.00503
0.090	39	43	0.00636
0.100	38	42	0.00785
0.110	37	41	0.00950
0.130	36	39	0.01327
0.140	35	/	0.01539
0.160	34	37	0.02011
0.180	33	/	0.02545
0.200	32	35	0.03142
0.230	31	/	0.04115
0.250	30	33	0.04909
0.290	29	31	0.06605
0.330	28	30	0.08553
0.350	27	29	0.09621
0.400	26	28	0.1257
0.450	25	/	0.1602
0.560	24	24	0.2463
0.600	23	23	0.2827
0.710	22	22	0.3958
0.750	21	/	0.4417
0.800	20	21	0.5027
0.900	19	20	0.6362
1.000	18	19	0.7854
1.250	16	18	1.2266
1.500	15	/	1.7663
2.000	12	14	3.1420
2.500	/	/	4.9080
3.000	/	/	7.0683