



FAST DOME CAMERA

PIH - 7000/7600/7625 Series

INSTALLION / OPERATION MANUAL



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PREFACE

Based on the proven reliability of PIH-7000(17X optical lens) / PIH-7600(22X optical lens) color domes and result of years research & development, in 2003 we are again launching a new day & night dome : PIH-7625 (25X optical lens), to provide a solution for 24 hours surveillance applications.

PIH-7625 equips with a 25X optical zoom lens adopting Sony Exview CCD and retractable IR filter, automatically switch from high resolution color to high resolution monochrome when light drops below 3 Lux. Additionally PIH-7625's on-screen menus offers easier and more configuration options such as : BLC zone selection, Auto White Balance mode selection, Zoom Speeds selection, Picture Quality adjustment...Etc.

Li Lin's Fast Dome series measure only 145mm (5.6") in diameter and is capable of making 360 degrees continuous rotation with a speed range of 0.18 to 360 degrees per second, ensures direct and accurate target positioning. When required the dome can be quickly spun through 180 degrees, an important feature when something passes directly under the camera.

Up to 128 preset positions can be programmed and recalled with an accuracy of 0.25 degrees. First 16 presets can be divided into 4 groups for auto touring with individual setting for speed and dwell time.

Each Fast Dome has 6 alarm inputs (expandable to 64) can drive the dome to any position in under second. A local alarm output can be configured as NO or NC and two types of alarm response mode provide flexible alarm management. RS-485 control interface makes our fast dome cameras easy to fit into our exist systems and compatible with other manufacturers's control systems.

Li Lin's Fast Dome series are fully-functional and user-friendly. It will meet your need for a wide range of surveillance applications.

FEATURES

- 17X Auto Focus Lens (PIH-7000)
Build-in 17X optical zoom lens with focal length 3.9 ~ 66.3mm
- 22X Auto Focus Lens (PIH-7600)
Build-in 22X optical zoom lens with focal length 3.9 ~ 85.4mm
- 25X Auto Focus Lens (PIH-7625)
Build-in 25X optical zoom lens with focal length 3.8 ~ 95.0mm
- Automatic / Manual Iris Control
- 360° continuous rotation
- Up to 128 programmable preset positions
- Preset positions auto scanning
- Highspeed rotation and tilt, speed range varies from 0.18°/sec ~ 360°/sec
- 180° Horizontal Instant Flip
- 6 alarm inputs, 1 alarm output can be set as NO (normally open) or NC (normally close) for each Fast Dome
- Two types of alarm response mode: Lock Mode, Release Mode
- Build in 1/4" CCD high resolution DSP colour camera:
 - 17X & 22X optical lens models:
 1. 480 TV Lines high resolution
 2. 0.8 Lux high sensitivity
 3. White Balance Control
(Auto White Balance and Manual White Balance(Indoor/Outdoor))
 4. Back Light Compensation (ON/OFF)
 5. Auto Gain Control (ON/OFF)
 - 25X optical lens model:
 1. Color / Mono Switch (IR Cut Filter)
ON → Color
OFF → Mono
AUTO → Switch from color to mono when light drops below 3 lux.
 2. 480 TV Lines (Color) ; 570 TV Lines (Mono)
 3. 0.1Lux (Color) ; 0.01Lux (Mono)
 4. On-Screen Setup Menu , 21 high sens setting items.
 5. White Balance Control : Auto Correction , Auto Tracking , Fix (Indoor/Outdoor)
 6. Back Light Compensation (On/Off)

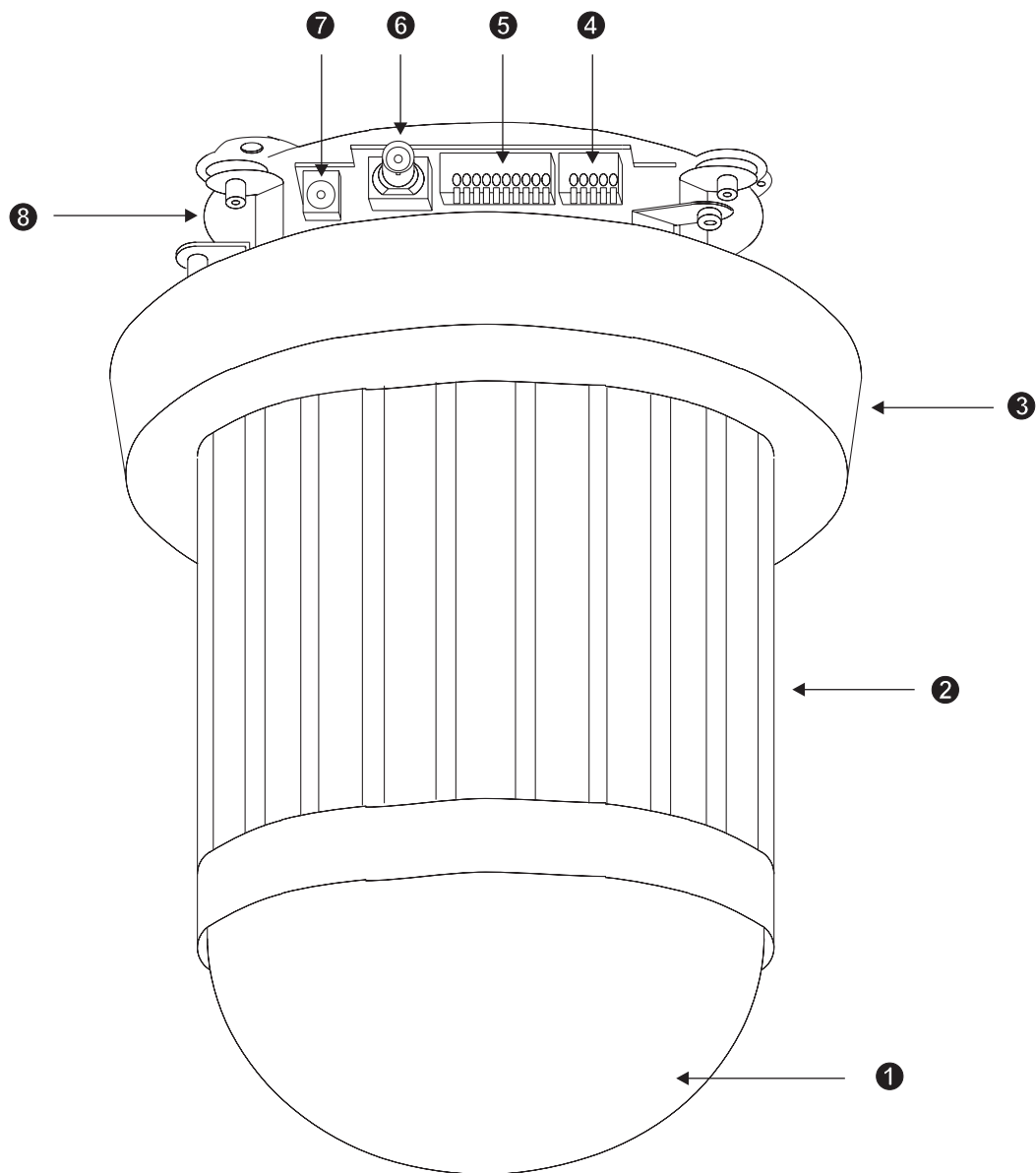
7. Back Light Compensation Zone (Top , Bottom , Left , Right)
 8. Auto Gam Control : 8dB (low) , 22dB (medium) , 36dB (hgih)
 9. 8 levels Brightness Adjustment
 10. 16 levels Content Adjustment
 11. Aperture Correction Adjustment
 12. Flickerless : On/Off
 13. Sensitivity Enhancement : On/Off
- RS-485 control interface
 - Up to 64 Fast Dome configuration
 - Compatible with PC control (protocol required)
 - 12Vdc voltage input (power supply options: 90 ~ 260Vac or 24Vac)
 - Flexible Mounting: Indoor - embedded and attached types, Outdoor - with weather resistant housing

WARNINGS & CAUTIONS

Please read the manual before attempting installation or operation

1. Please be aware to the warnings and cautions notice.
2. Don't use any chemical detergent to clean the machine surface, use a damp cotton cloth only. Regularly clean the dome cover to assure proper focus ability.
3. Please install the Fast Dome in a dry area, water and high humidity may cause damage on internal parts. External housing should be used for outdoor installation.
4. Please use parts supplied by the manufacturer only, any unqualified part using in the equipment may violate the warranty.
5. Avoid installing the equipment in an unstable area. Make sure the area is firm and stable. Falling equipment may injure personnel and damage the equipment.
6. Do not install the equipment near any flammable gas. Violation may cause fire or injury.
7. Avoid running video cable and signal cable through or passing interference sources such as video waves, broadcast station, power generator, elevator motor or high voltage area etc. Violation may cause interference.
8. Make sure the power cable is properly fixed. Un-suitably fixed cable may cause serious short circuit or fire.
9. Correct cable connection is important. Do not place any object on the connection cable and change the cable if there is damage on cable. Violation may cause short circuit, fire and injury.
10. Make sure ground is well connected to avoid damage caused by lightning.
11. Do not put any foreign objects inside the equipment and do not spray any liquid on equipment. This will avoid short circuit damage.
12. Do not touch power connection with wet hands to avoid short circuit or electricity shock.
13. Do not apply smash-force on the equipment. Violation may cause damage.
14. Do not install the equipment in a location that may expose the equipment directly to sunlight. Violation may cause colour fading or damage.
15. Do not install the equipment in high temperature or low temperature environment to avoid damage. The normal operational temperature is between $-5^{\circ}\text{C} \sim +50^{\circ}\text{C}$.
16. Fast Dome contains high sensitive electric parts inside. Do not try to repair them without qualified personnel.
17. Turn off the power immediately and contact the technician when the following occurs:
 - A. Damage on power cable or plug.
 - B. Water leak into the equipment.
 - C. Fast Dome can not be operated normally.
 - D. Equipment falling on ground or damage on external case.
 - E. Unusual occurrence.
18. Warning: Do not try to repair the equipment. Only a qualified technician may disassemble and repair the equipment. Shut off the power before disassemble the equipment and don't put power on unless the case is completely assembled.

STRUCTURAL ELEMENT

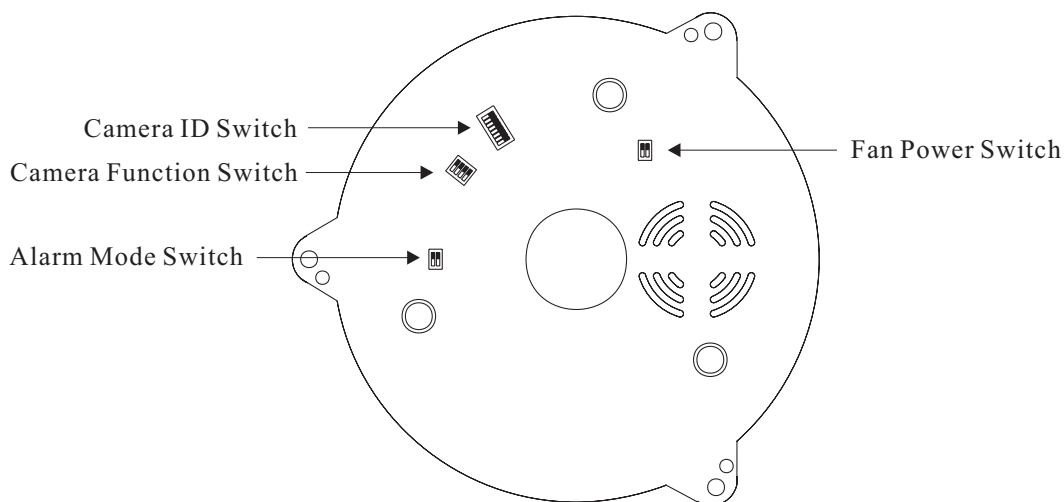


- ① Dome Cover
- ② Camera Case
- ③ Decoration Ring
- ④ RS-485 In / Out Jack

- ⑤ Alarm In / Out Jack
- ⑥ Video In / Out Jack
- ⑦ Power In Jack
- ⑧ Camera Base

FAST DOME CAMERA SET UP

DIP Switch Setting



Fan Power Switch

Turn the number 2 switch to ON position to activate the internal fan. This will maintain the temperature inside and make the electric parts longer life.

Alarm Mode Switch

Alarm Mode can be set as Lock or Release mode. Turn number 1 switch to ON position to choose Release mode. Turn number 1 switch to OFF position to choose Lock mode.

Fast Dome has 6 alarm inputs and 1 output, which can be set either NC (normally close) or NO (normally open) mode. Turn number 2 switch to ON position to choose NC mode.

Turn number 2 switch to OFF position to choose NO mode.

Camera Function Switch

➤ 17X & 22X optical lens models:

Turn number 1 switch to ON position for AGC function

Turn number 2 switch to ON position for BLC function

Turn number 3 switch to ON position for AWB function

Turn number 3 switch to OFF position for Manual White Balance (MWB)

When fast dome is set to MWB, turn number 4 switch to ON for Outdoor (color temp. 3200K) or to OFF for Indoor (colour temp. 6300K)

➤ For 25X optical lens model Function Setup, please refer to page 40.

Fast Dome ID Address Setting Refer Chart

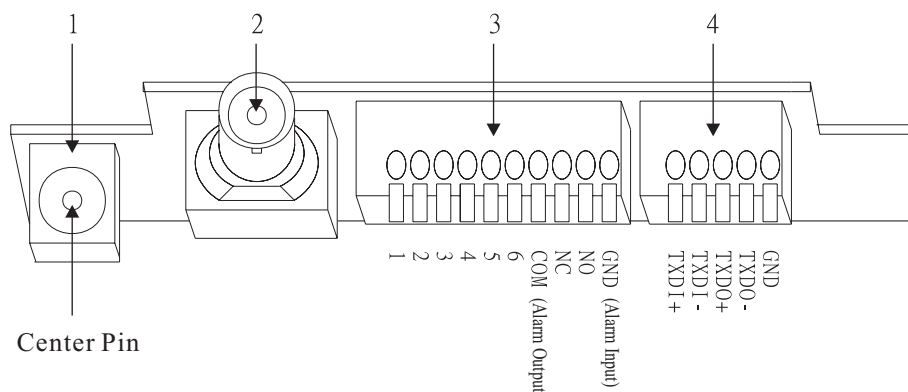
Up to 64 Fast Dome Camera can be serial linking in one system.

Therefore each dome is addressing by ID switch located at the base of the Fast Dome.

Below is the address setting for camera 1~64:

1		17		33		49	
2		18		34		50	
3		19		35		51	
4		20		36		52	
5		21		37		53	
6		22		38		54	
7		23		39		55	
8		24		40		56	
9		25		41		57	
10		26		42		58	
11		27		43		59	
12		28		44		60	
13		29		45		61	
14		30		46		62	
15		31		47		63	
16		32		48		64	

Fast Dome Connection Jack and Cable Requirement



1. Power In Jack

DC12V Input Voltage, Power Consumption 1.2A_{dc}, Center Pin 2.0mm
Require Cable: 18 AWG x 2C

2. Video Out BNC Jack

Video Signal Output CVBS 1.0V_{pp} 75Ω BNC
Recommend Data Cable: 5C2V

3. Alarm In / Out Jack

Each fast dome contains 6 alarm inputs and 1 alarm output
Alarm Input Voltage 5.6V_{max}, Output 0.5A 120Vac / 1A 24V_{dc}
Recommend Data Cable: UL 26 AWG 80°C 300V
UL 24 AWG 80°C 300V

4. RS-485 In / Out Jack

RS-485 Input (TXDI+,TXDI-) to receiver signal from keyboard, matrix, DVR or multiplexer through twisted pair cable.
RS-485 Output (TXDO+,TXDO-) sending out signal to next fast dome through twisted pair cable.
Recommend Data Cable: 2547 VW-ISC UL 24 AWG x 2C
Transmission Distance: Max. 1 Kilometer

* When 24VAC PSU is used, the recommend cables are:

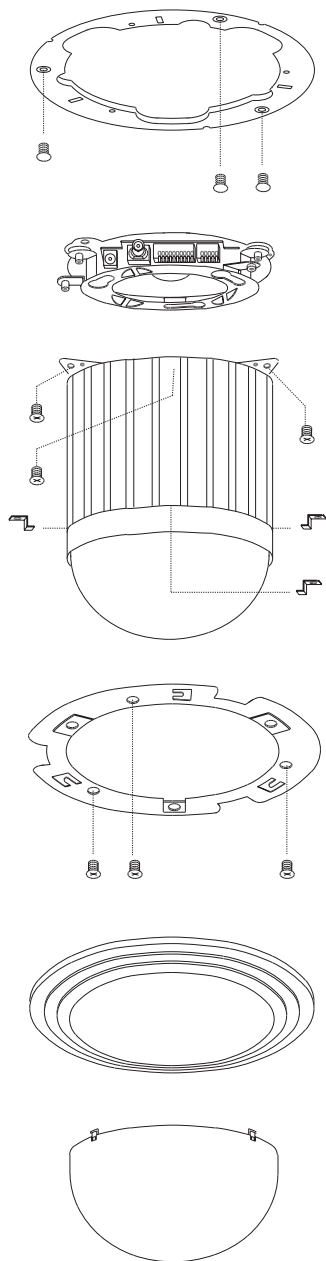
- UL SPT-1 VW-1 18AWG x 2C
- UL SPT-2 VW-1 18AWG x 2C
- UL SUT 105°C VW-1 18AWG x 3C

The distance between 24Vac PSU and fast dome can not exceed 200 meters.

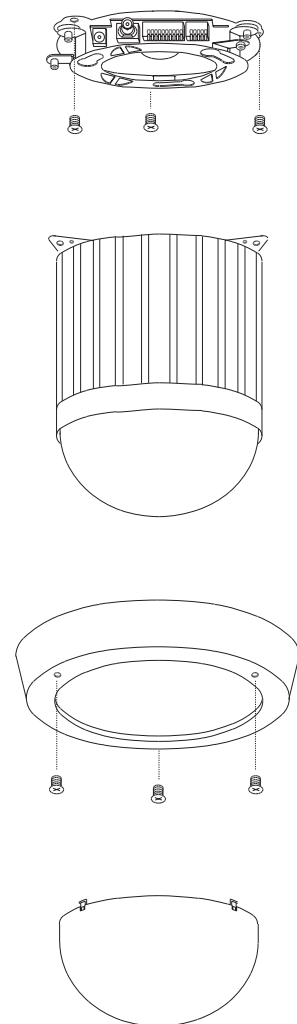
INSTALLATION

Indoor Installation Structural Drawing

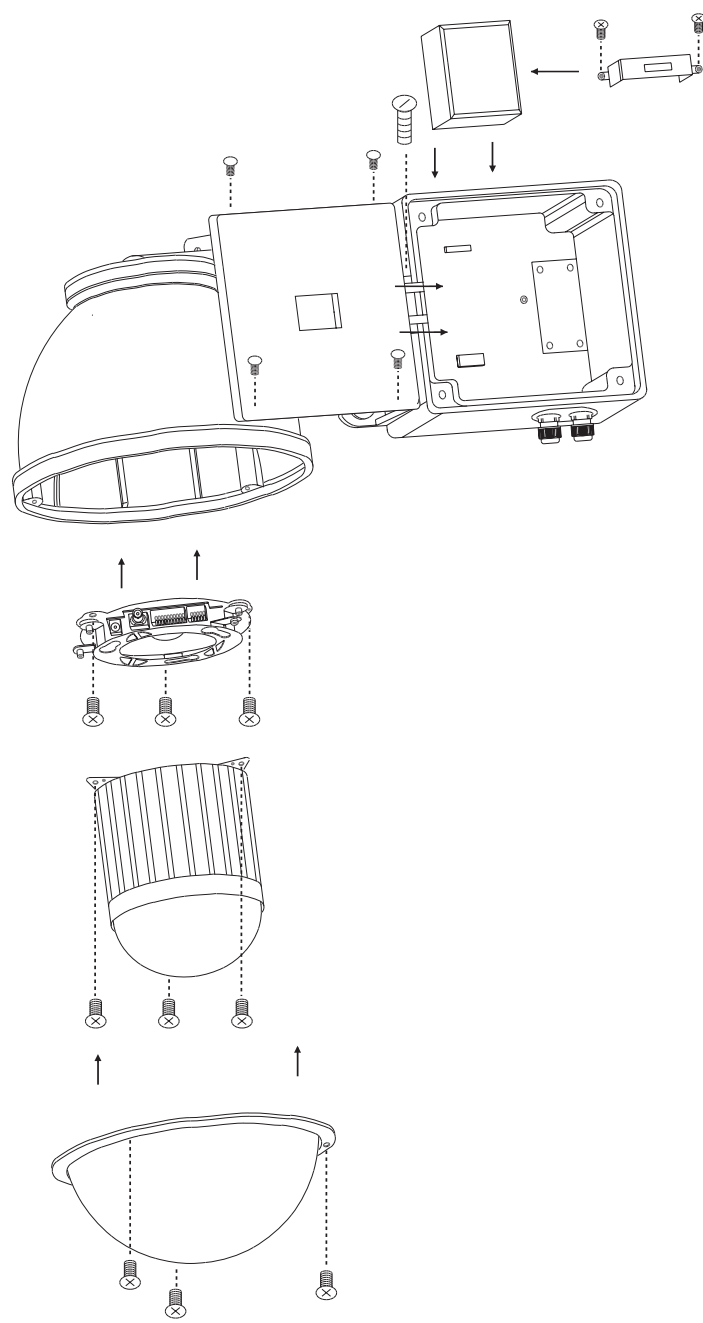
Embedded Mounting



Attached Mounting

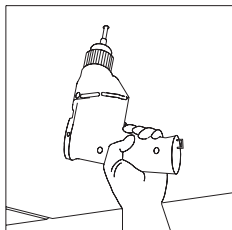


Outdoor Installation Structural Drawing (Pendant Mounting)

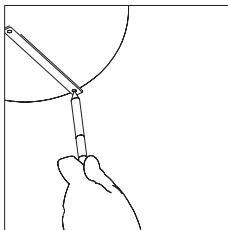
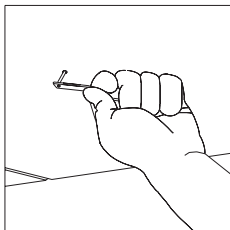


Embedded Mounting (False Ceiling)

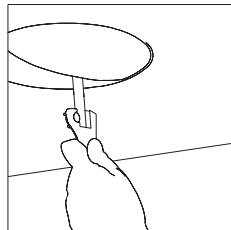
Step 1 Ceiling Preparation



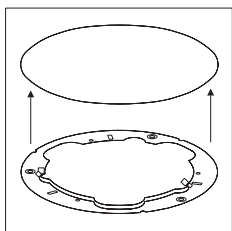
- Drill a 3/32" (2.4mm) hole at the center of the chosen area.



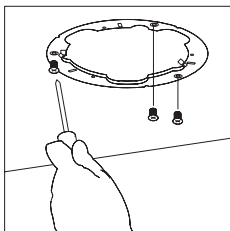
- Use a pencil and a compass to mark a circle 6.7" (170mm) in diameter and cut the circle.



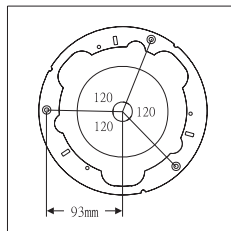
Step 2 The Ceiling Ring



- Attach the ring to ceiling

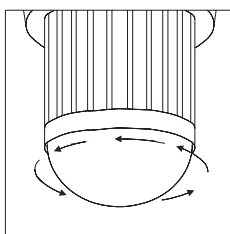


- Tighten the three tapping screws into the ceiling or three machine screws with three screw nuts

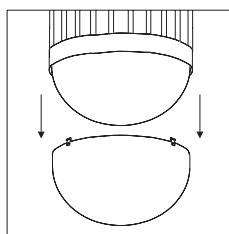


- Ring size and screw location

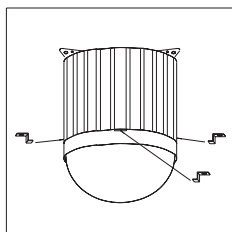
Step 3 The Fix Ring



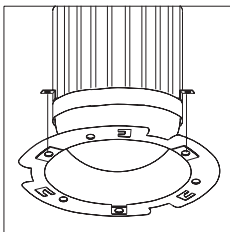
- Turn the dome cover anti-clockwise



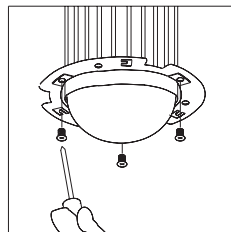
- Separate the dome cover from camera



- Put on the three L shape screw nuts

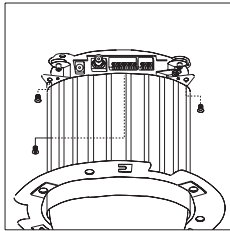


- Attach fix ring with screw nuts

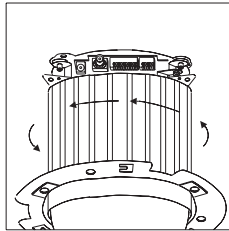


- Tighten the three black screws into the screw nuts

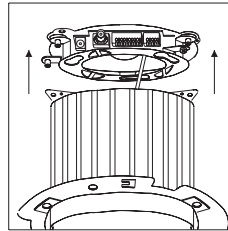
Step 4 Camera Setting



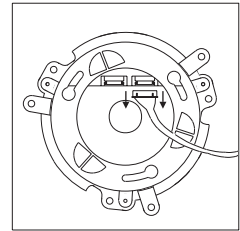
- Untighten the three screws from the base



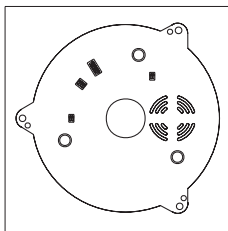
- Turn the camera body anti-clockwise



- Separate the camera body and base



- Unplug the connection cable



Setting Fast Dome ID

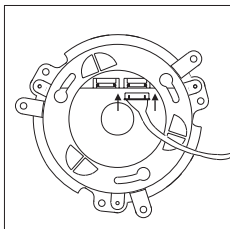
Setting Alarm Mode

Setting Camera Function (17X & 22X optical lens models only)

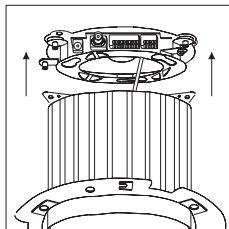
Setting Fan Power

Refer to page 8,9 for the setting

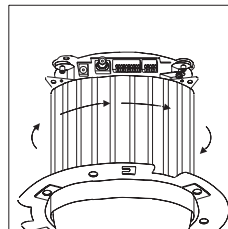
Step 5 Attach the Camera Body and Base



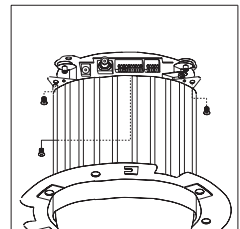
- Reconnect the connection cable



- Attach camera body to base

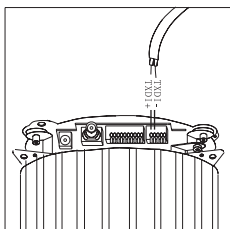


- Turn camera body clockwise to tight position

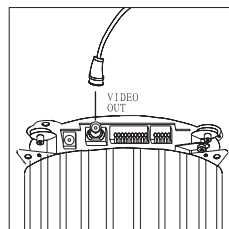


- Tighten the three screws to fix the camera body

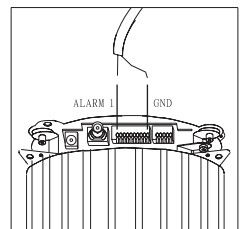
Step 6 Connection



- Connect RS-485 cable

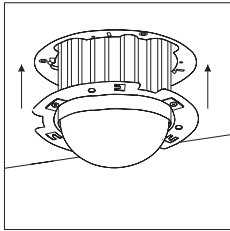


- Connect video signal cable

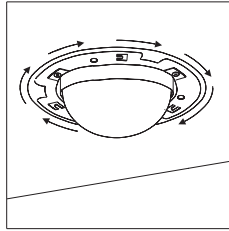


- Connect alarm output cable

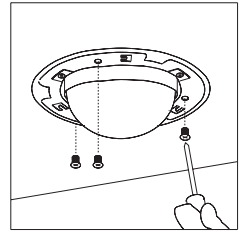
Step 7 Install Camera Body and Decoration Ring



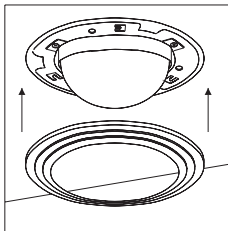
- Put camera body and the fix ring into the hole



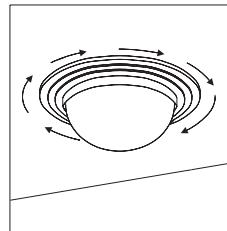
- Turn the camera body clockwise to tight position



- Tighten three black screws

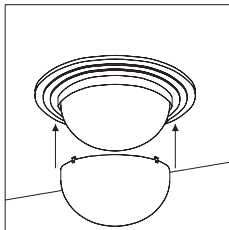


- Put on decoration ring

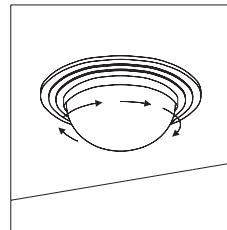


- Turn the ring clockwise to tight position

Step 8 Install The Dome Cover



- Attach dome cover to camera body

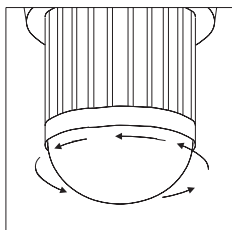


- Turn the dome cover clockwise to tight position

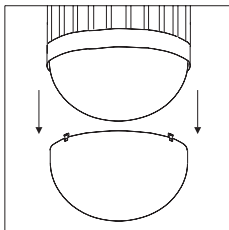
Note : After dome cover is attached, use glass-cleaning cloth to clean dome cover. Unclean dome cover may affect camera performance.

Attached Mounting (Fixed Ceiling)

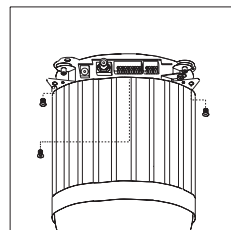
Step 1 Fix The Base



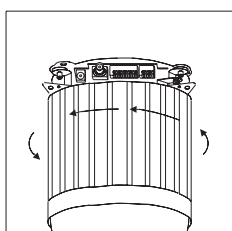
- Turn the dome cover anti-clockwise



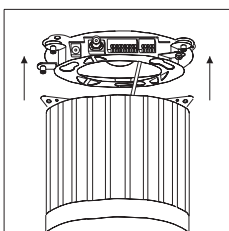
- Separate the dome cover from camera



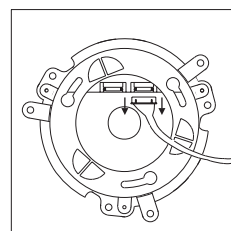
- Untighten the three screws from base



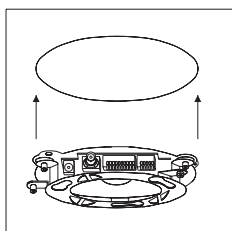
- Turn the camera cover anti-clockwise



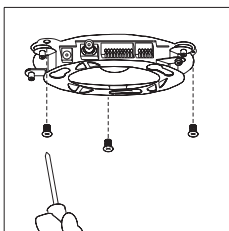
- Separate the camera body to the base



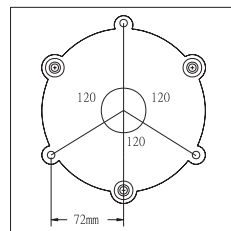
- Unplug the connection cable



- Attach base to ceiling

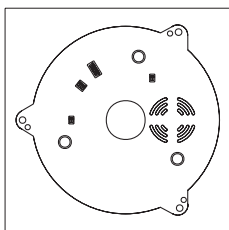


- Tighten the three tapping screws into the ceiling



- Base size and screw location

Step 2 Camera Setting



Setting Fast Dome ID

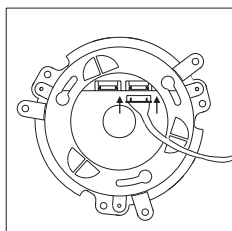
Setting Alarm Mode

Setting Camera Function (17X & 22X optical lens models only)

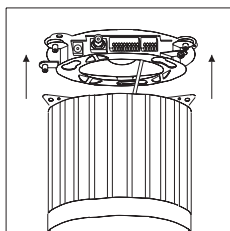
Setting Fan Power

Refer to page 8,9 for the setting

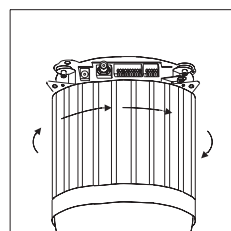
Step 3 Attach Camera Body and Base



- Reconnect the connection cable

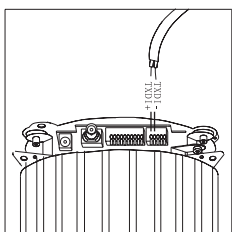


- Attach camera body to base

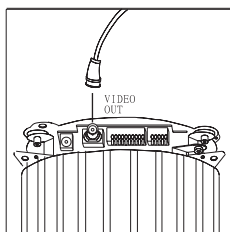


- Turn camera body clockwise to tight position

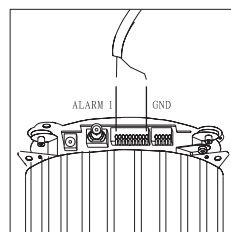
Step 4 Connection



- Connect RS-485 cable

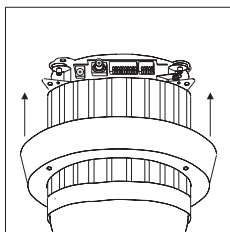


- Connect video signal cable

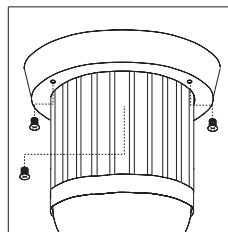


- Connect alarm output cable

Step 5 Install Decoration Ring

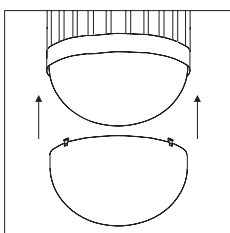


- Put on decoration ring to base

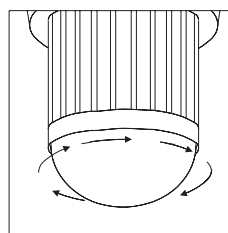


- Tighten the three screws

Step 6 Install Dome Cover



- Put on dome cover to camera body

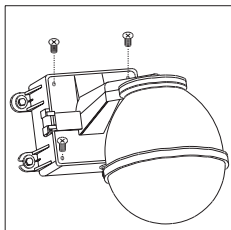


- Turn dome cover clockwise to tight position

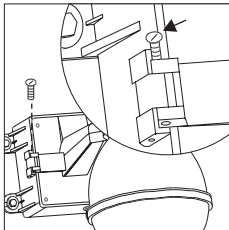
Note : After dome cover is attached, use glass-cleaning cloth to clean dome cover. Unclean dome cover may affect camera performance.

Pendant Mounting (External Housing)

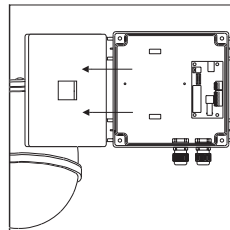
Step 1 Separate PSU and Bracket



- Untighten the screws from PSU box



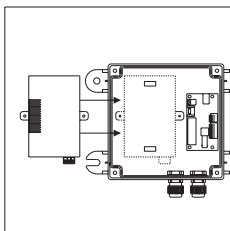
- Untighten and pull out the bolt from the hinge



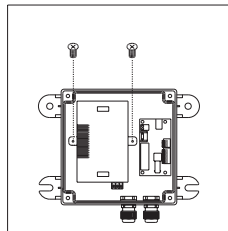
- Separate the housing and PSU box

Step 2 Install Power Supply Unit

1.1 When use 24Vac power source:

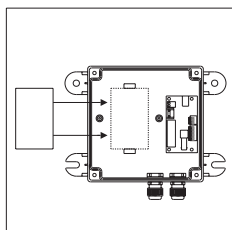


- Put the PSU into the box

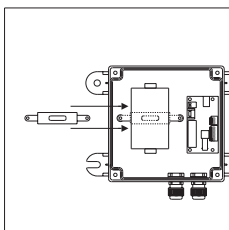


- Tighten 2 screws to fix the PSU

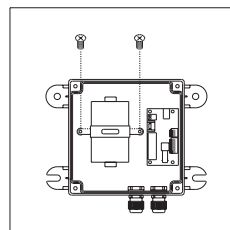
1.2 When use 90 ~ 260Vac power source:



- Put PSU into the box

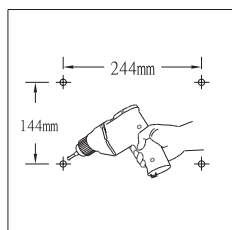


- Put the clamp on PSU

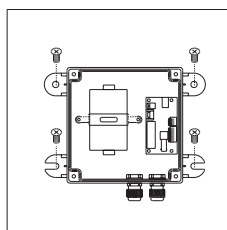


- Tighten 2 screws to fix the PSU

Step 3 Install the Power Box

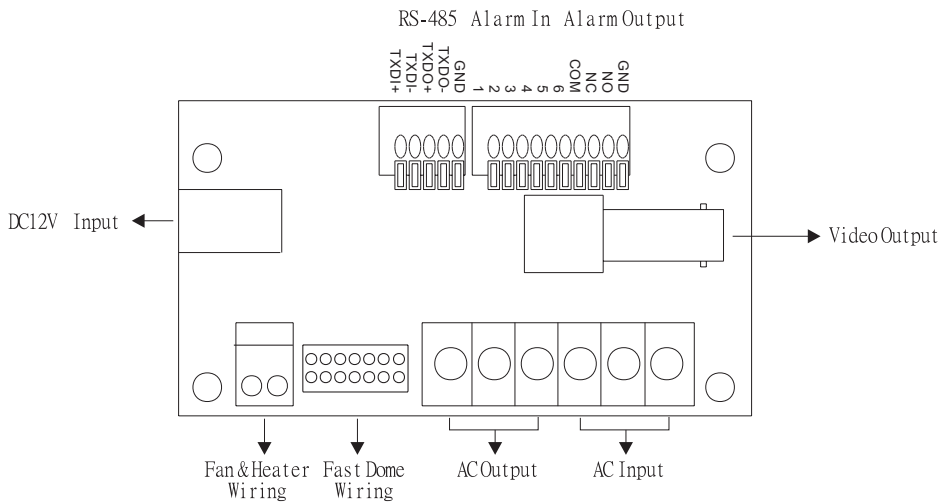


- Drill 4 holes on desired locations

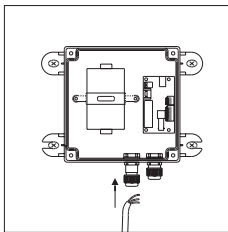


- Tighten 4 screws to fix the power box. (These four screws are not supplied. User must prepare their own screws.)

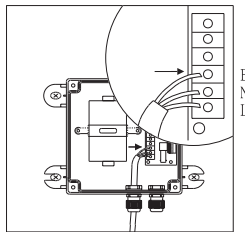
Step 4 Connection



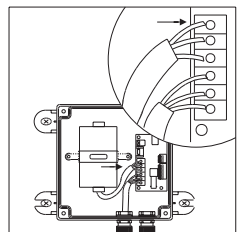
4.1 Connect AC / DC cables:



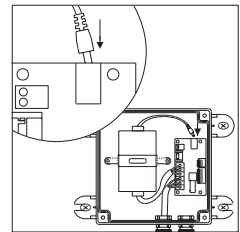
- Untighten the left knob, put the AC power cable through the hole and tighten the knob



- Connect the AC power cable to AC Input jack

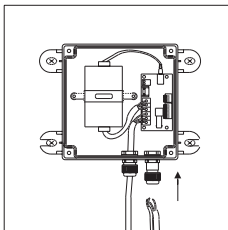


- Connect the AC power cable(below) to AC Output jack

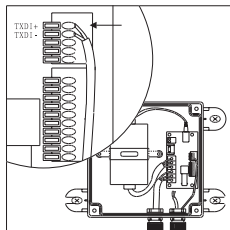


- Connect the DC power cable(above) to DC Input jack

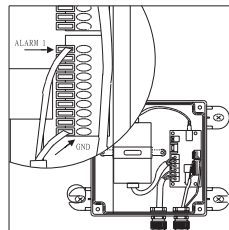
4.2 Connect Alarm, telemetry control (RS-485) and Video cables:



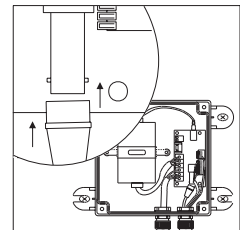
- Untighten the right knob, put the Alarm, RS-485 and video cables through the hole and tighten the knob



- Connect the telemetry control (RS-485) to RS-485 Input (TXDI+, TXDI-)

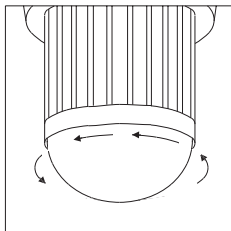


- Connect the Alarm input cable to Alarm Input (Alarm 1 & GND)

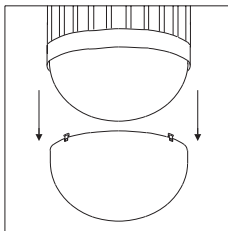


- Connect the video cable to output jack

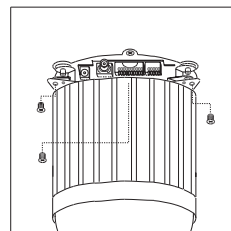
Step 5 Attach the base to housing



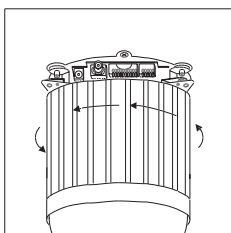
- Turn the dome cover anti-clockwise



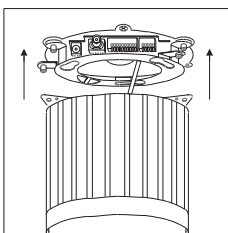
- Separate the dome cover from camera



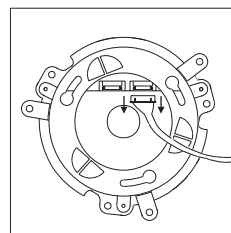
- Untighten the 3 screws from base



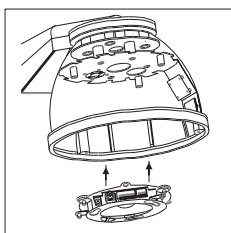
- Turn the camera body anti-clockwise



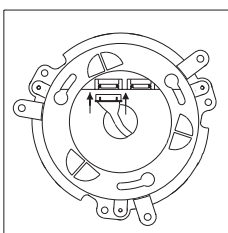
- Separate the camera body and base



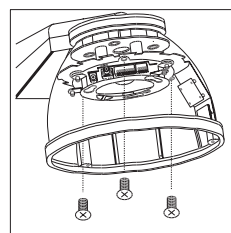
- Unplug the connection cable



- Attach the base to housing

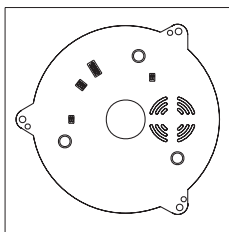


- Connect the housing cable



- Tighten 3 screws to fix base

Step 6 Camera Setting



Setting Fast Dome ID

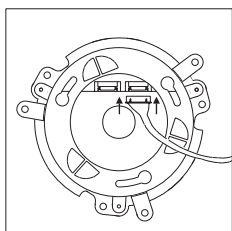
Setting Alarm Mode

Setting Camera Function (17X & 22X optical lens models only)

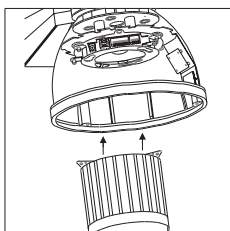
Setting Fan Power

Refer to page 8,9 for the setting

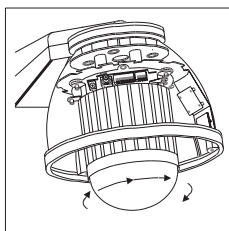
Step 7 Attach Camera Body and Base



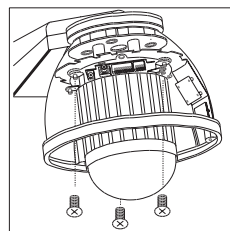
- Reconnect the connection cable



- Attach camera body to base

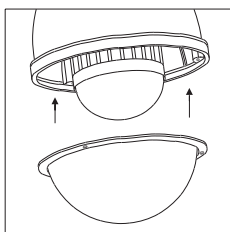


- Turn camera body clockwise to high position

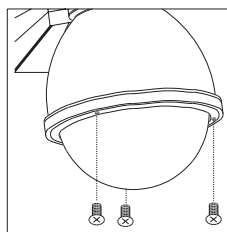


- Tighten the three screws to fix the camera body

Step 8 Install The Dome Cover and Housing Cover



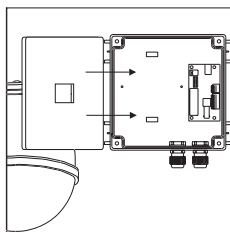
- Attach the cover to housing



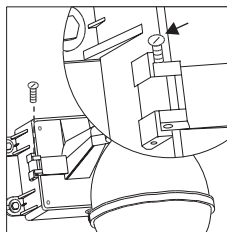
- Tighten the 3 screws to fix the cover

Note : When Fast Dome is installed inside outdoor housing, please don't attach dome cover. Violation may affect camera performance.

Step 9 Attach PSU and Bracket

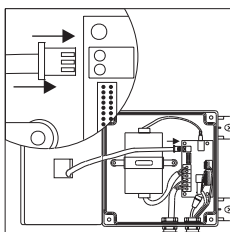


- Attach the housing back to PSU box

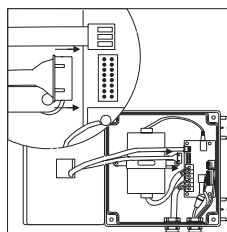


- Insert the bolt into the hinge and tighten

Step 10 Connection



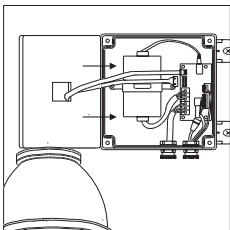
- Connect the fan & heater cable to pin jack



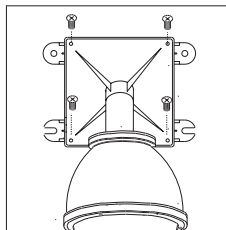
- Connect the Fast Dome cable to connection jack

Step 11 Install The Power Box, Bracket and Housing

PIH-510H

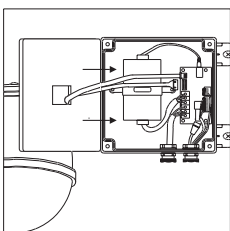


- Attach the bracket and housing to the box

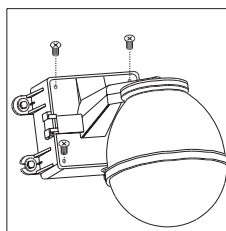


- Tighten the 4 screws to fix the bracket

PIH-510L



- Attach the bracket and housing to the box



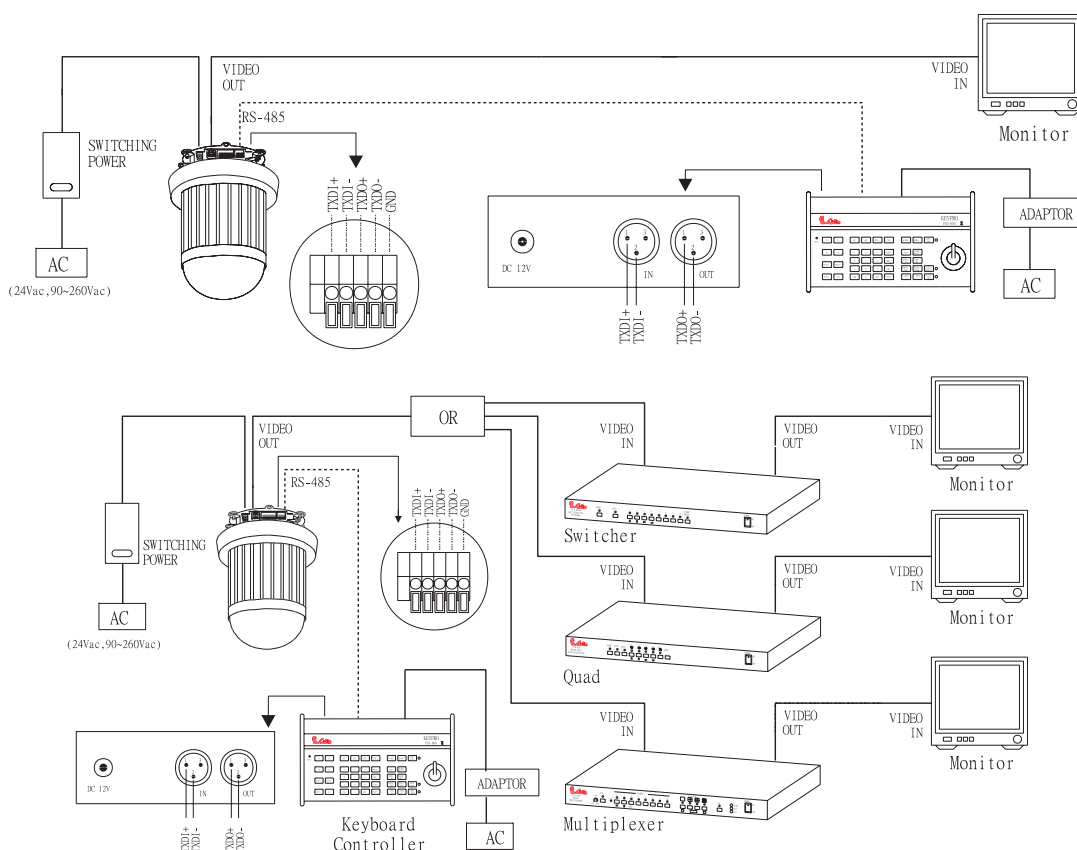
- Tighten the 4 screws to fix the bracket

SYSTEM CONFIGURATION

Li Lin's integrated Fast Dome Surveillance System is suitable for a wide range of surveillance applications. The system can be as single fast dome with one keyboard or encompassing as 64 domes with comprehensive matrix switching, PC control and even Digital Video Recording. Such flexibility means future expansion is easily facilitated.

Fast Dome and Keyboard

Single dome configuration: One Fast Dome Camera connects to one PIH-800II or PIH-801. Telemetry control is sent via twisted pair between Dome and Keyboard. Video signal from the dome is sent to monitor or multiplexer or quad or switcher.

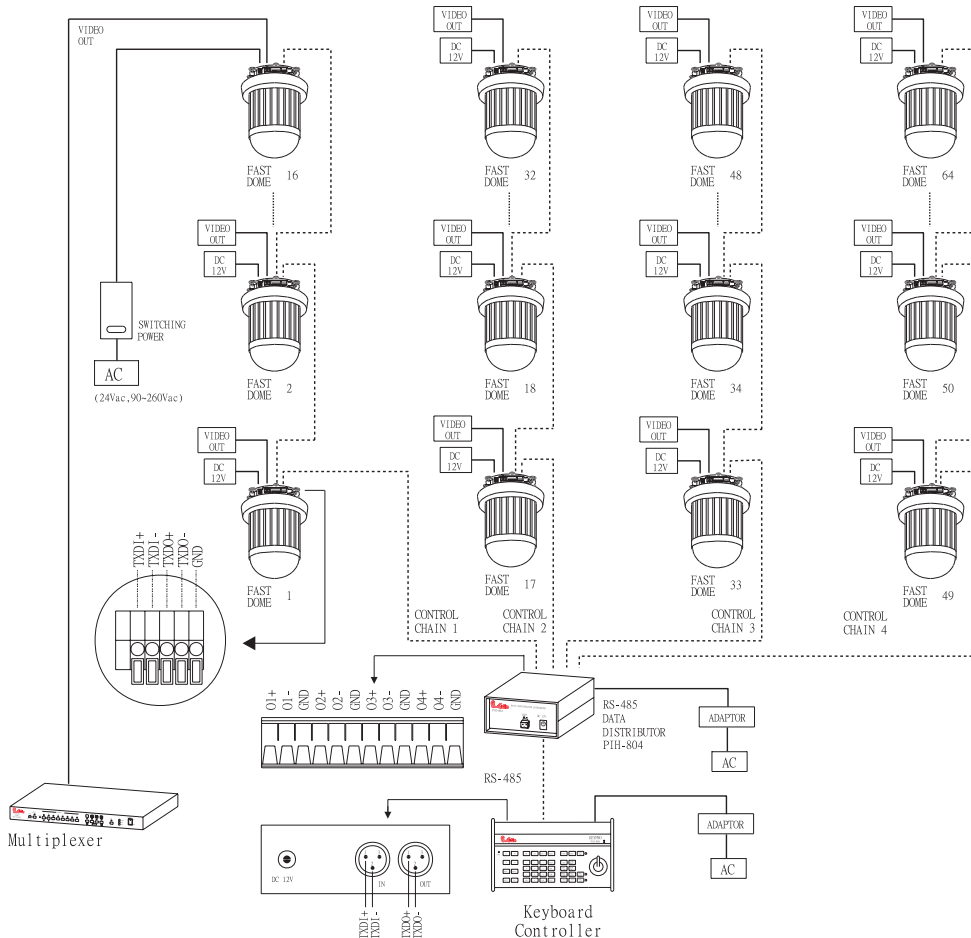


RS-485 Connection

1st pin TXDI+ of RS-485 jack at back of the keyboard connects to TXDI+ of RS-485 jack on fast dome.

2nd pin TXDI- of RS-485 jack at back of the keyboard connects to TXDI- of RS-485 jack on fast dome.

Multiple Domes means that more than one fast dome is linked in the system. Each dome connects to next dome forming a serial linking. Each dome has an individual ID dip switch, which allows the keyboard to identify each fast dome and make command. Sometimes it is more convenient to wire a telemetry system in star configuration rather than daisy chain. To do this a PIH-804 data distributor is necessary. It takes an output from a keyboard or a matrix and splits the single data line into 4 separate data lines. One keyboard can control up to 64 camera.



RS-485 Connection Between PIH-804 Data Distributor and Fast Dome

1st output TXDI1+ of PIH-804 connects to TXDI+ of 1st fast dome and TXDI1- of PIH-804 to TXDI- of fast dome.

Linking 2nd Fast Dome

TXDO+ of 1st fast dome connects to TXDI+ of 2nd dome and TXDO- of 1st dome to TXDI- of 2nd dome.

RS-485 Connection Between PIH-804 Data Distributor and Keyboard

1st pin TXDI+ on RS-485 IN jack of keyboard connects to TXDO+ on RS-485 OUT jack of PIH-804

2nd pin TXDI- on RS-485 IN jack of keyboard connects to TXDO- on RS-485 OUT jack of PIH-804

Fast Dome, Matrix and Keyboard

Matrix System is designed to process multiple video systems and video switching.

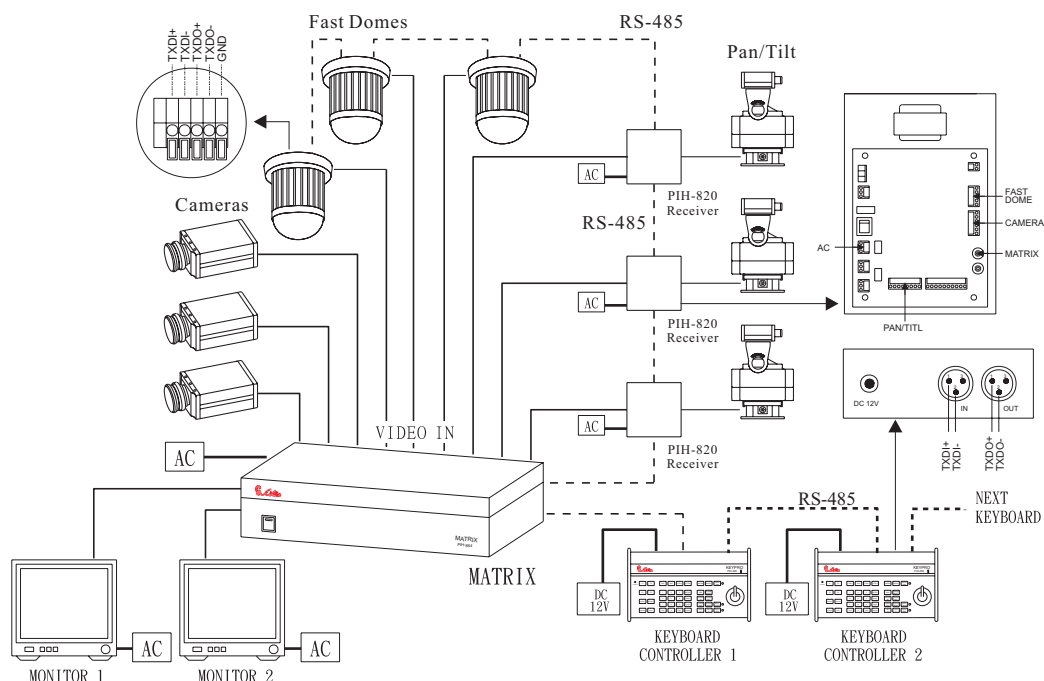
Its central process unit (CPU) can manage multiple video signals simultaneously and control other linking system, such as PIH-7000/7600/7625 fast dome or PIH-820 telemetry receiver.

All telemetry remote control and signal transmissions are through twisted pair. One matrix can manage up to 64 fast domes.

Multiple keyboards can be used for matrix control. 1st keyboard is the master and rests are slaves.

Up to 8 keyboards can be used in one system. Each keyboard has a Dip Switch for ID setting.

(Please refer to keyboard's manual for detail)



RS-485 Connection Between Matrix and Fast Dome

TXD+ of receiver jack on matrix connects to TXDI+ of 1st fast dome and TXD- of matrix to TXDI- of fast dome.

Linking 2nd Fast Dome

TXDO+ of 1st dome connects to TXDI+ of 2nd dome and TXDO- of 1st dome to TXDI- of 2nd dome. 64 fast dome can be linked through the connection as shown.

RS-485 Connection Between Keyboards

TXDO+ of 1st keyboard RS-485 OUT connects to TXDI+ of 2nd keyboard RS-485 IN.

TXDO- of 1st keyboard RS-485 OUT connects to TXDI- of 2nd keyboard RS-485 IN.

RS-485 Connection Between Keyboard and Matrix

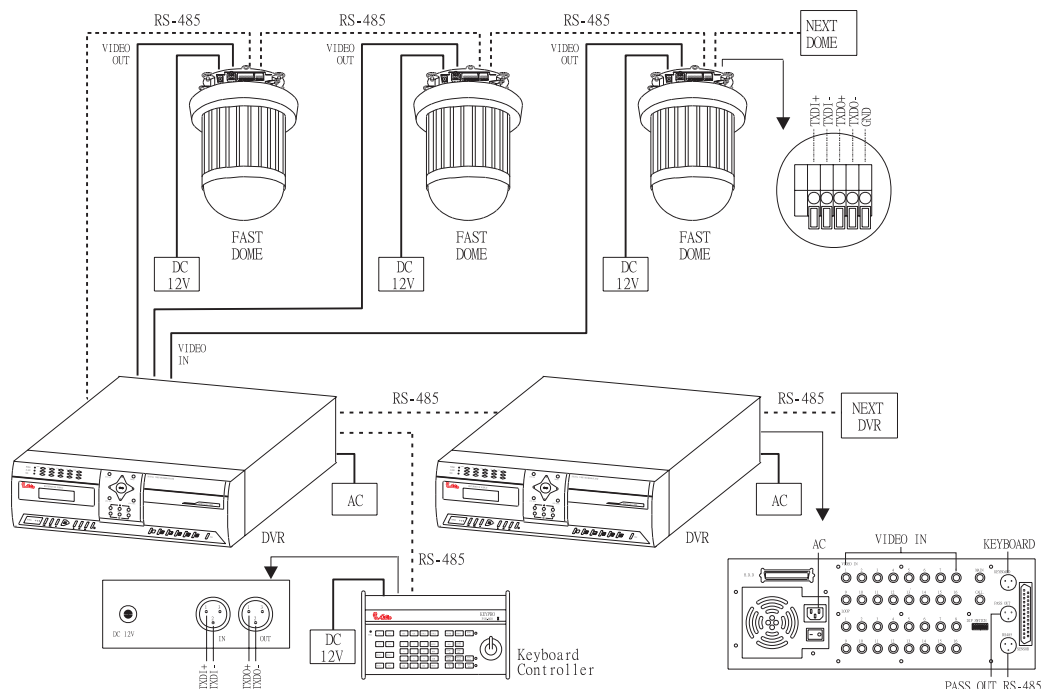
TXDI+ of 1st keyboard RS-485 IN connects to 1st pin TXD+ of matrix's keyboard jack.

TXDI- of 1st keyboard RS-485 IN connects to 2nd pin TXD- of matrix's keyboard jack.

Fast Dome, DVR Multiplexer Video Management System and Keyboard

The DVR System is an advanced digital recording product, with long recording time and easy searching features. Telemetry remote control is twisted pair for data transmission to the fast dome. Fast Dome can be controlled directly from the control panel of the DVR, or from keyboard.

Each DVR video management system can manage 16 video signals (fast domes). Through RS-485 connection, 16LILIN stand along DVRs can be linked in one system.



RS-485 Connection Between Fast Dome and DVR

TXD+ of DVR RS-485 jack connects to TXDI+ of 1st fast dome and TXD- of DVR to TXDI- of fast dome.

Linking 2nd FastDome

TXDO+ of 1st dome RS-485 jack connects to TXDI+ of 2nd dome to TXDO- of 1st dome to TXDI- of 2nd dome.

RS-485 Connection Between DVRs

TXD+ of 1st DVR pass out RS-485 jack connects to TXD+ of 2nd DVR's keyboard jack.

TXD- of 1st DVR pass out RS-485 jack connects to TXD- of 2nd DVR's keyboard jack.

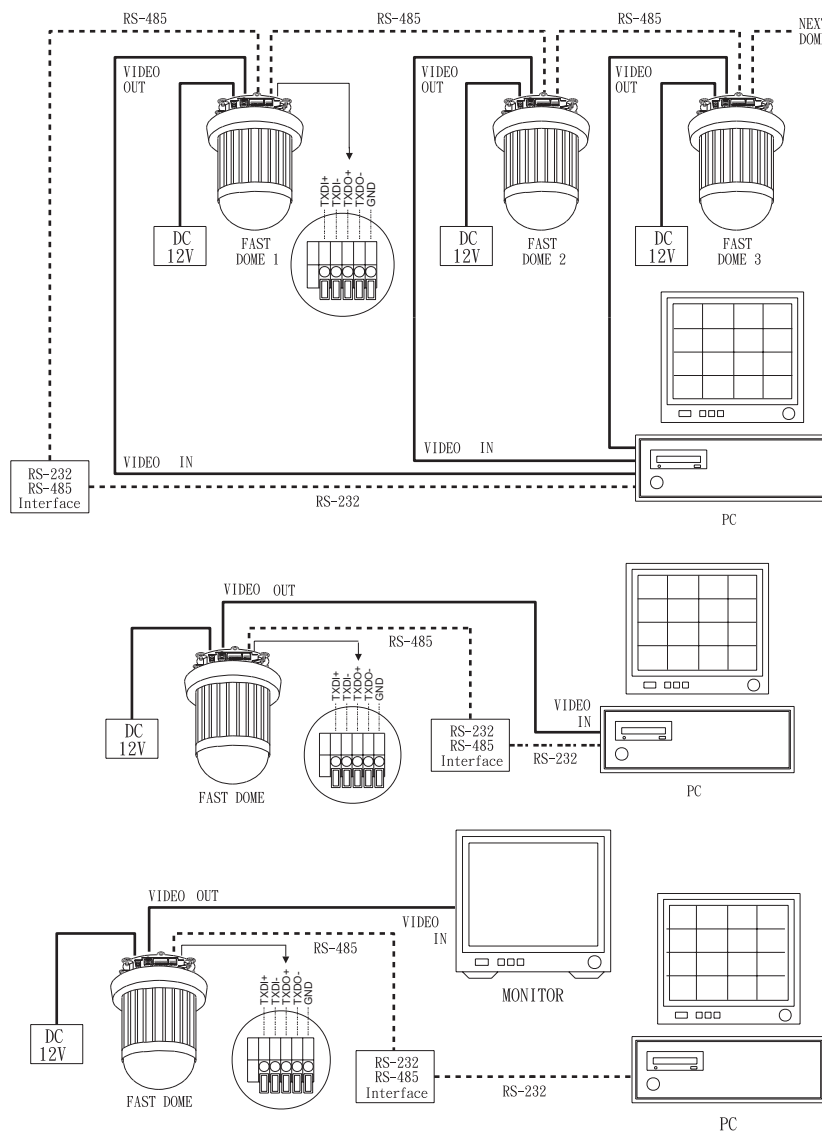
RS-485 Connection Between DVR and Keyboard

TXD+ of 1st DVR's keyboard jack connects to TXDI+ of keyboard RS-485 IN jack.

TXD- of 1st DVR's keyboard jack connects to TXDI- of keyboard RS-485 IN jack.

Fast Dome with PC Control

PC telemetry remote controls fast dome with standard RS-485 data format (format: N, 8, 1 Baud Rate 9600 bps). The PC control port RS-232 is converted to RS-485 format by interface. User may use their own software (protocol) or software provided by Li-Lin to control the dome. In this system up to 64 fast domes can be linked.



RS-485 Connection Between Fast Dome and Conversion Interface

TXD+ of conversion interface RS-485 jack connects to TXDI+ of 1st fast dome and connect TXD- to TXDI-.

Linking 2nd FastDome

TXDO+ of 1st dome RS-485 jack connects to TXDI+ of 2nd dome to TXDO- of 1st dome to TXDI- of 2nd dome. 64 fast domes can be linked through the connection as shown.

OPERATION

Initial Power Up Inspection

After the power is first applied to a dome it will perform a self-test procedure. This calibrates and checks the basic functions of the dome, control is not possible during this self-test period. Once the camera has stopped moving, it will then be ready to control. If preset positions and tours have been programmed into a dome and the power is turned off, the dome will enter the Auto Scan mode once the power is turned on again (after self-test period). The dome will remain in Auto Scan until an operator cancels it.

Manual Operation (Pan / Tilt Control)

To control the pan and tilt movement of the dome simply use the joystick on the keyboard; to pan the camera left push the joystick to the left, to tilt down pull the joystick down (towards you). To move the dome faster push the joystick further in the that direction, the joystick is proportional to the speed of the dome; a small movement will move the dome slower.

① UP

Push the joystick forward, the camera tilt up.

② DOWN

Push the joystick down (towards you), the camera tilt down.

③ LEFT

Push the joystick left, the camera pan left.

④ RIGHT

Push the joystick right, the camera pan right.

⑤ DIAGONAL

Push the joystick diagonally, the camera moves to that direction (direction ⑤ on figure 1)

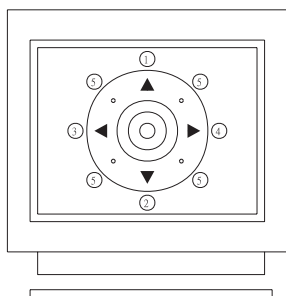


Figure 1

Relationship Between Joystick and Direction

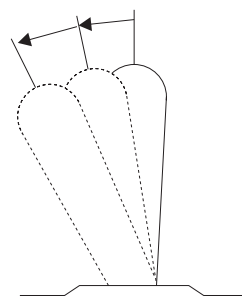


Figure 2

Relationship Between Joystick and Rotation Speed

Fast Dome Selection

To call out a dome controlling or setting

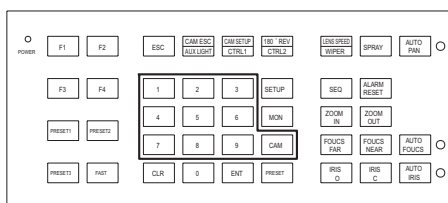
☛ To select 1st Fast Dome

Push key **1** followed by **CAM** key.

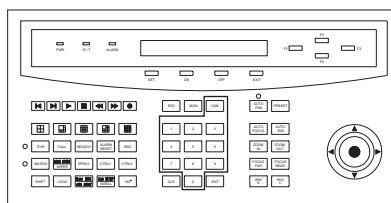
☛ To select 64th Fast Dome

Push key **6** then **4** followed by **CAM** key.

* When matrix system is used, select monitor before camera selection. Please refer to matrix system user manual.



PIH-800II



PIH-801

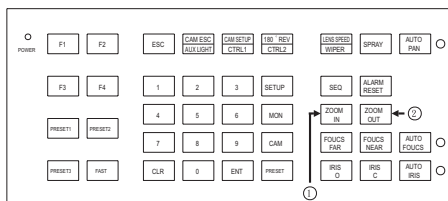
Zoom Lens Control

☛ To Zoom In

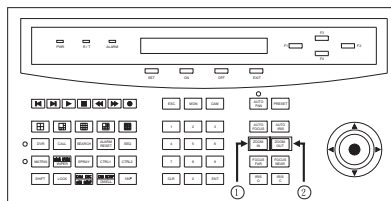
Push **ZOOM IN** key. The viewing angle becomes narrower and target will become enlarged on the screen. Zooming will stop when the key is released.

☛ To Zoom Out

Push **ZOOM OUT** key. The viewing angle becomes wider and target will become smaller on the screen. Zooming will stop when the key is released.



PIH-800II



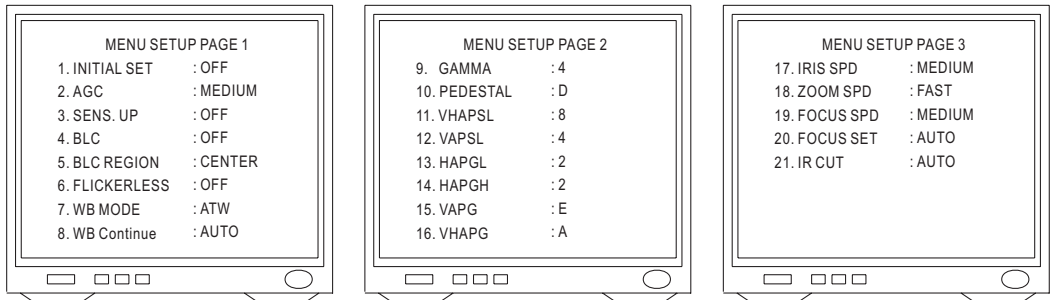
PIH-801

Manual Zoom Lens Control Speed Selection

☛ Zoom Lens Speeds can be selected for PIH-7625 as following:

① Recall Setup Menu

Push **CAM SETUP CTRL 1** key to recall OSD menu.



② Setup Item Selection

Push joystick down to select 18th item "Zoom Speed" on Menu Page 3.

③ On "Zoom SPD" push joystick left or right to make selection.

One of three speed can be selected:

FAST = Tele - Wide : 3.5 seconds.

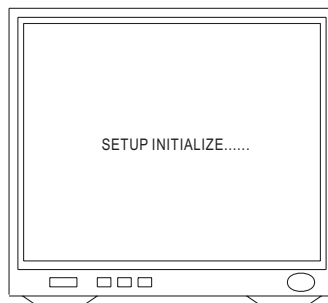
MEDIUM = Tele - Wide : 6 seconds.

SLOW = Tele - Wide : 52 seconds.

④ To Exit Setup Menu

Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Note : "Setup Initialize..." message will be displayed on the monitor for 4~5 seconds, after escape from setup menu. All setting is stored in Fast Dome.



Manual Zoom Speeds Switch:

After above steps were completed, the selected manual zoom speed is stored in Fast Dome.

To use the selected manual zoom speed under lens control, user has to push **LENS SPEED** **WIPER** key before operation, otherwise manual zooming speed will be "FAST" as default. To switch back to "FAST" manual zoom speed simply push **LENS SPEED** **WIPER** key again.

Focus Control

The focus function on Fast Dome can be set as Auto Focus or Manual Focus.

Manual focus far

Push **FOCUS FAR** key.

The target will become farther. Focusing will stop when the key is released.

(PIH-801 keyboard LCD displays "F=M")

Manual focus near

Push **FOCUS NEAR** key.

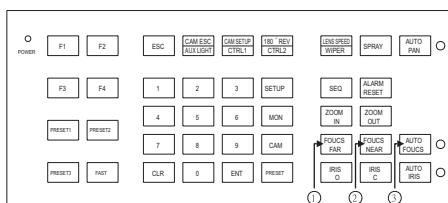
The target will become nearer. Focusing will stop when the key is released.

(PIH-801 keyboard LCD displays "F=M")

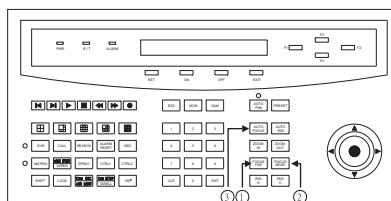
Auto Focus

Push **AUTO FOCUS** key. The lens will automatically adjust itself for optimum focus.

(PIH-801 keyboard LCD displays "F=A")



PIH-800II

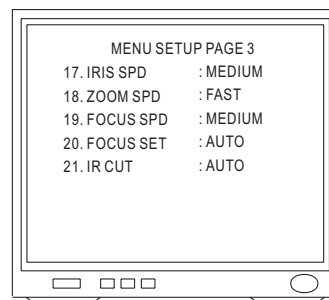
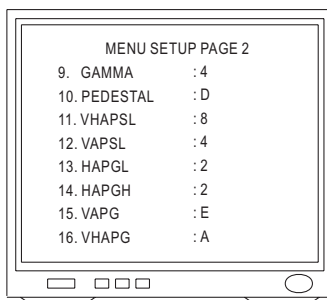
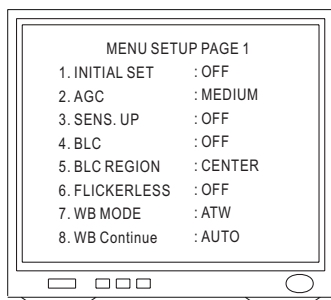


PIH-801

25X Fast Dome Camera Auto Focus & One Shot Focus Selection

1 Recall Setup Menu

Push **CAM SETUP CTRL 1** key to recall OSD menu.



2 Setup Menu Item Selection

Push joystick down to select 20th item "Focus Set" on Menu Page 3.

3 On "Focus Set" push joystick left or right to make selection: Auto Focus → One Shot Focus.

》 After "Auto Focus" is selected, user has to push AUTO FOCUS key to activate auto focus function.

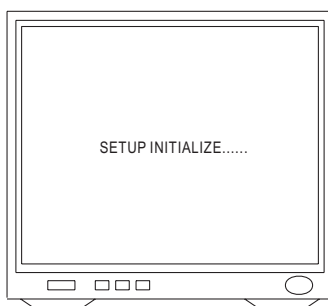
》 After "One Shot" is selected, user has to push AUTO FOCUS key to activate one shot auto focus function.

When "One Shot Focus" is activated, Fast Dome will only auto "one shot" focus on object under Auto Panning or Manual Zoom In/Zoom Out.

④ To Exit Setup Menu

Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

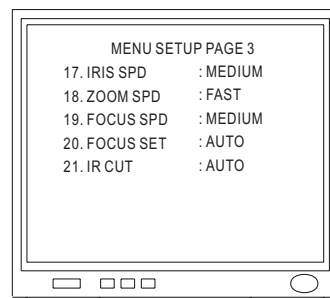
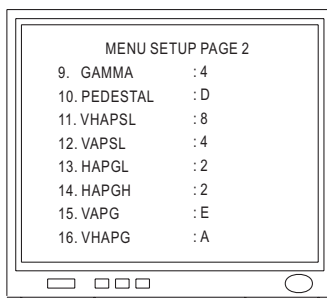
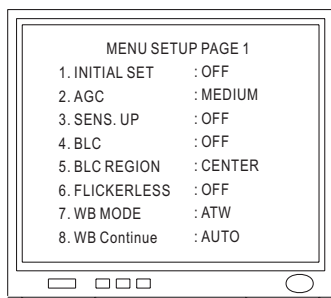
Note : "Setup Initialize..." message will be displayed on the monitor for 4~5 seconds, after escape from setup menu. All setting is stored in Fast Dome.



➡ 25X Fast Dome Camera Manual Focus Speed Setup

① Recall Setup Menu

Push **CAM SETUP** **CTRL 1** key to recall OSD menu.



② Setup Menu Item Selection

Push joystick down to select 19th item "Focus Speed" on Menu Page 3.

③ On "Focus SPD" push joystick left or right to make selection: Fast → Medium → Slow.

One of three speed can be selected : FAST / MEDIUM / SLOW.

④ To Exit Setup Menu

Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Note : "Setup Initialize..." message will be displayed on the monitor for 4~5 seconds, after escape from setup menu . All setting is stored in Fast Dome.

Manual Focus Speeds Switch:

After above steps were completed, the selected manual focus speed is stored in Fast Dome.

To use the selected manual focus speed under lens control, user has to push **LENS SPEED WIPER** key before operation, otherwise manual focusing speed will be "MEDIUM" as default. To switch back to "MEDIUM" manual focus speed simply push **LENS SPEED WIPER** key again.

Iris Control

The purpose of iris control is to adjust brightness on target. It can be set as Auto Iris or Manual Iris.

☛ Iris Open

Push **IRIS O** key, to open the iris and brighten the picture.

Iris will stop when the key is released. (PIH-801 keyboard LCD displays I=M)

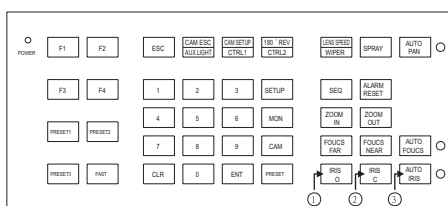
☛ Iris Close

Push **IRIS C** key, to open the iris and reduce glare.

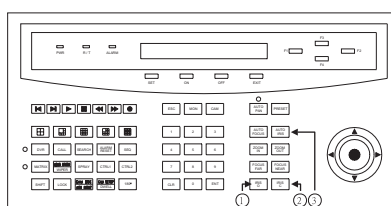
Iris will stop when the key is released. (PIH-801 keyboard LCD displays I=M)

☛ Auto Iris

Push **AUTO IRIS** key, to select the Auto Iris mode. (PIH-801 keyboard LCD displays I=A)



PIH-800II

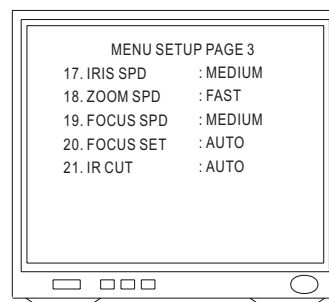
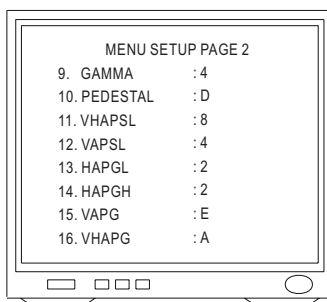
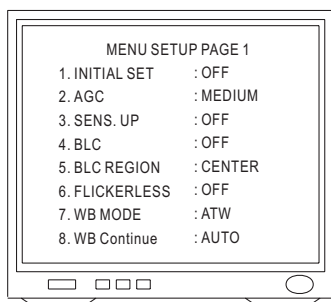


PIH-801

☛ 25X Fast Dome Camera Manual Iris Speed Setup

❶ Recall Setup Menu

Push **CAM SETUP CTRL 1** key to recall OSD menu.



② Setup Menu Item Selection

Push joystick down to select 17th item "Iris Speed" on Menu Page 3.

③ On "Iris SPD" push joystick left or right to make selection: FAST → MEDIUM.

To Exit Setup Menu

④ Push CAM ESC AUX LIGHT key to exit menu, when finish or move joystick to select next item.

Note : "Setup Initialize..." message will be displayed on the monitor for 4~5 seconds, after escape from setup menu. All setting is stored in Fast Dome.



Manual Iris Speeds Switch:

After above steps were completed, the selected manual iris speed is stored in Fast Dome.

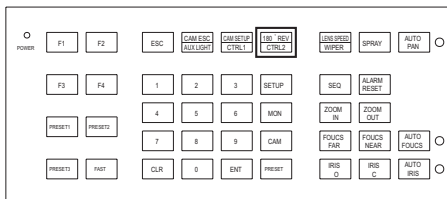
To use the selected manual iris speed under lens control, user has to push LENS SPEED
WIPER key before operation, otherwise manual iris speed will be "MEDIUM" as default. To switch back to "MEDIUM" manual iris speed simply push LENS SPEED
WIPER key again.

Horizontal 180° Instant Flip

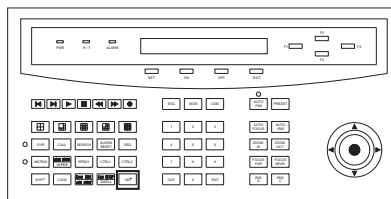
Some times it is hard to use the joystick to control the camera tracking the target directly under the camera. The instant flip key can rotate the camera 180° instantly. This allows the camera continue to track the target passing directly under the camera.

Two ways to operate 180° instant flip:

- ① Push 180° REV
CTRL 2 key on keyboard to flip the camera 180° horizontally.
- ② Push joystick down to bring the camera down to the end, release the joystick and quickly push joystick down twice to flip the camera 180° horizontally.



PIH-800II



PIH-801

Preset Positions Setting

Each dome can have 128 individual preset positions. Each preset stores the exact position of the camera and automatic pan, tilt, zoom, focus and iris setting. Once the data is set, the preset can be recalled for viewing, or the presets can be set for auto pan.

* Only the first 16 preset positions of fast dome can be set to auto pan mode and first 6 preset positions are corresponding with the 6 alarm inputs.

1 Selecting Fast Dome

Push key **1** followed by **CAM** key, confirming that first camera is selected.

Ex. To select 1st fast dome : **1****CAM** keys

To select 64th fast dome : **6****4****CAM** keys

2 Selecting Preset Position

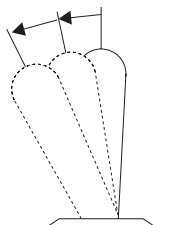
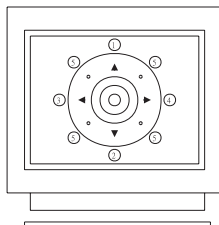
Push key **1** followed by **CAM** key, confirming that first preset position selected.

Ex. To select the 1st preset position : **1****PRESET** keys

To select the 128th preset position : **1****2****8****PRESET** keys

3 Joystick Control

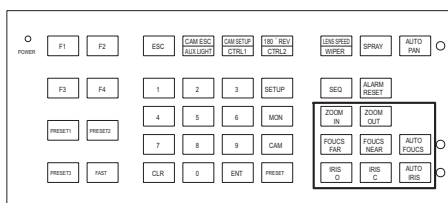
Move the Joystick to bring the camera to the desired view position.



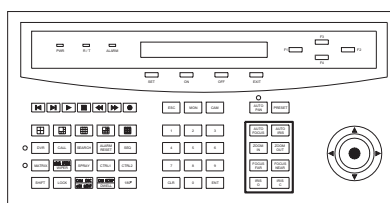
4 Adjusting Lens

ZOOM IN / OUT, FOCUS NEAR / FAR / AUTO and IRIS O / C / AUTO keys.

When set up preset point, using manual focus will provide both clarity and stability of image.



PIH-800II



PIH-801

5 Setting Preset Speed

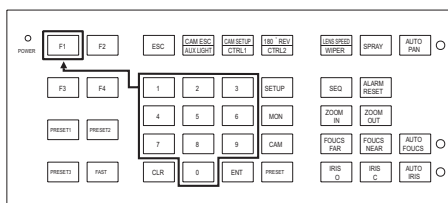
The speed the dome travels to that preset position can be adjusted between 1° to 255° per second (the factory default is 0°/sec).

PIH-800II :

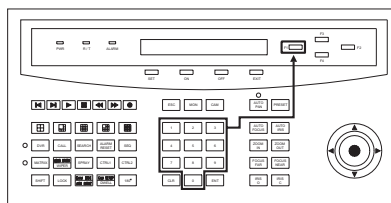
To set speed as 10°/sec: Push key **10** followed by **F1** key, two beeps will be heard confirming that speed is set.

PIH-801 :

To set speed as 10°/sec: Push key **10** followed by **F3** key.



PIH-800II



PIH-801

Note: When PIH-800II keyboard is used, push **F1** key to confirm speed entered.

When PIH-801 keyboard is used, push **F3** key to confirm speed entered.

6 Setting Preset Dwell Time

The dwell time means the time user wants to view on certain preset position under Auto Pan. The Preset Dwell Time can be set between 0 ~ 255 seconds. (The factory default is 0 second)

* If the dwell is set to 0 second then that position will be omitted from the Auto Scan Tour.

To set dwell to 5 seconds: Push key **5** followed by **F2** key.

Ex. To set dwell to 5 second : **5F2** keys

To set dwell to 10 second : **10F2** keys

7 Storing Preset Data

Once the above steps have been completed, the information must be stored or it will not be memorized by the system.

PIH-800II :

Push key **1** followed by **F3** key, two beeps will be heard confirming that data is stored.

PIH-801 :

When PIH-801 is used, there is no need to perform data saving step for 1st ~ 16th preset.

For 17th ~ 128th presets **F3** key should be pushed to store data.

Note : For the first 16 presets on each dome, the above steps must be repeated. For presets 17 ~ 128 there is a default speed and dwell setting so steps 5 and 6 are not required.

Recalling Preset Positions

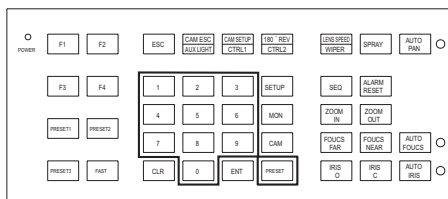
Once the required preset positions have been stored in a dome, they may be quickly recalled, returning the dome to exact position.

☛ To recall 1st Preset Position: Push key **1** followed by **PRESET** key.

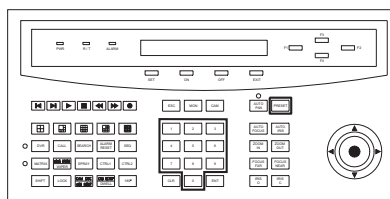
The dome will move to that position in speed of $360^{\circ}/\text{sec}$.

Ex. To recall 1st preset position : **1 PRESET** keys

To recall 128th preset position : **1 2 8 PRESET** keys



PIH-800II



PIH-801

Setting Preset Group

The purpose of setting preset group allows the management of the 16 preset positions before Auto Scanning. The first 16 preset positions of each dome are separated into 4 groups. Preset group must be set for the auto pan reference.

Group 1 includes: 1st 2nd 3rd and 4th preset positions.

Group 2 includes: 5th 6th 7th and 8th preset positions.

Group 3 includes: 9th 10th 11th and 12th preset positions.

Group 4 includes: 13th 14th 15th and 16th preset positions.

☛ To set up group 1: Push key **1** followed by **F4** key.

Ex.

PIH-800II

PIH-801

To set Group 1

1 F4

1 F4

To set Group 2,3

1 2 F4

2 3 F4

To set Group 3,4

3 4 F4

3 4 F4

To set Group 1,2,3

1 2 3 F4

1 2 3 F4

To set Group 2,3,4

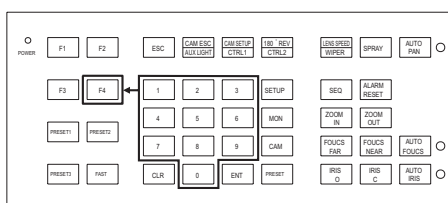
2 3 4 F4

2 3 4 F4

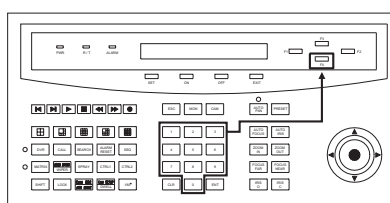
To set Group 1,2,3,4

1 2 3 4 F4

9 9 9 F4



PIH-800II



PIH-801

Changing Preset Data

In order to change any preset position from the one stored, the dome must first be sent to that preset position.

To change the 4th preset position of the Dome number 3, perform the following steps:

- ➊ Push **3** **CAM** to select Dome 3
- ➋ Push **4** **PRESET** to go to 4th preset position
- ➌ Move joystick to bring camera to the desired view position.
- ➍ Adjusting lens
- ➎ Setting preset speed
- ➏ Setting dwell time
- ➐ Store Data

(Please refer to page 32 for step ➋~➐)

Activating Auto Pan

When the Auto Pan function is activated, the fast dome will auto touring the preset groups entered.

➤ To activate Auto Pan:

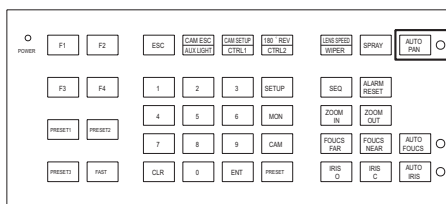
Push **AUTO PAN** key, confirming the activation of autopan.

(When use PIH-800II, Auto Pan Led will be lit. When use PIH-801, LCD will display F=A)

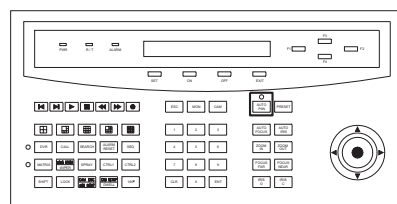
➤ To stop Auto Pan:

Push **AUTO PAN** key again, confirming the stop of autopan.

(When use PIH-800II, Auto Pan Led will be Off. When use PIH-801, LCD will display F=M)



PIH-800II



PIH-801

- * If the AUTO PAN is activated, no other commands can be sent to that dome, but other dome can still be selected and operated manually.

➤ To select (call out) another dome while it is under Auto Pan mode:

Simply push the numeric key followed by the **CAM** key.

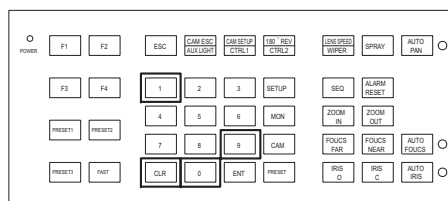
Push key **2** followed by **CAM** key, confirming the 2nd camera is selected.

Deleting Preset Data

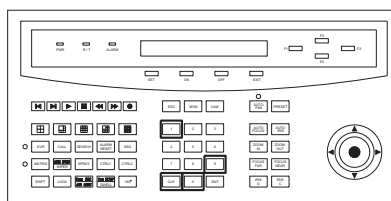
Sometimes it is necessary to delete the stored data. All the data can be cleared from a dome by pressing key **9011**, followed by the **CLR** key.

* All 128 preset data will be erased.

➡ Push **9011**, followed by **CLR** key.



PIH-800II



PIH-801

Alarm Management

The 6 alarm inputs of each fast dome are corresponding with the first 6 preset positions. When an alarm signal is triggered, the dome will go to the relevant position at $360^\circ/\text{sec}$. Make sure the first 6 preset positions are set to desired alarm areas.

Alarm input can be set to NC (normally close) or NO (normally open) depends on alarm detector. Please refer to page 7 for alarm switch setting.

➡ Relationship Between Alarm Inputs and First 6 Presets

- Alarm Input 1 will send the dome to Preset Position 1
- Alarm Input 2 will send the dome to Preset Position 2
- Alarm Input 3 will send the dome to Preset Position 3
- Alarm Input 4 will send the dome to Preset Position 4
- Alarm Input 5 will send the dome to Preset Position 5
- Alarm Input 6 will send the dome to Preset Position 6

➡ Alarm Response Mode

The fast dome alarm response can be set to Lock or Release mode.

Lock : dome remains at last alarmed preset point

Release : dome moves between alarmed points then reverts to prior status, such as autopan.

① Lock Mode

When an alarm is triggered, the dome will go to the relevant position at $360^\circ/\text{sec}$ and the keyboard will audio alert the user until it is canceled manually.

To manually cancel the alarm trigger: Push **ALARM RESET** key.

If more than one alarm is triggered, the fast dome will lock on the last alarm triggered position.

② Release Mode

- Under Auto Pan Condition

When an alarm is triggered under Auto Pan, fast dome will go to the relevant position at 360°/sec. After 60 seconds the alarm will be canceled automatically and back to Auto Pan mode. If more than one alarm is triggered, the fast dome will moves between alarmed points every 5 seconds and back to Auto Pan mode after 60 seconds.

- Not Under Auto Pan Condition

When an alarm is triggered not under Auto Pan, the fast dome will go to the relevant position at 360°/sec. After 60 seconds the alarm will be canceled automatically, and dome will be back to first preset position. If more than one alarm is triggered, the fast dome will move between alarmed points every 5 seconds and back to first preset position after 60 seconds.

- The audio alert for alarm trigger will remain on until it is manually canceled by push the **ALARM RESET** key.

Alarm Output

Each fast dome has 1 alarm output, with three contacts: Common, NC (normally close) and NO (normally open) to activate linking devices.

- When alarm response mode is set to LOCK Mode:

When the alarm is triggered, NC contact to Common will be open and NO contact to common will be close. Alarm output will be back to the condition before alarm, 10 seconds after the last alarm is triggered.

- When alarm response mode is set to RELEASE mode:

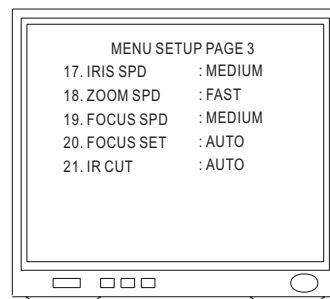
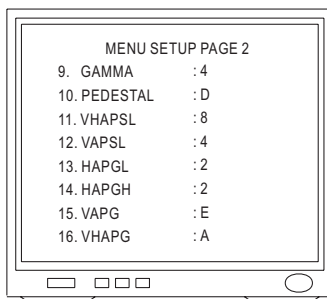
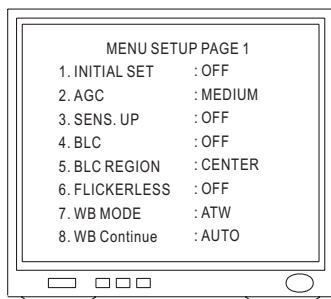
When the alarm is triggered, NC contact to Common will be open and NO contact to common will be close. Alarm output will be back to the condition before alarm, 60 seconds after the last alarm is triggered.

25X Fast Dome Function Setup

PIH-7625 (25X Optical Lens) series provide on-screen setup menu, all functions can be selected and set via OSD Setup Menu.

❶ Recall Setup Menu

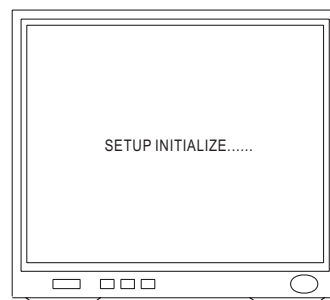
Push **CAM SETUP** key to recall OSD menu.



- | | |
|--|------------------------------------|
| 1. Factory Default Setting | 6. Flickerless ON/OFF |
| 2. Auto Gain Control Selection | 7. White Balance Mode Selection |
| 3. Sensitivity Enhancement ON/OFF | 8. White Balance Condition Display |
| 4. Back Light Compensation ON/OFF | 9. GAMMA (Brightness) Adjustment |
| 5. Back Light Compensation Zone Selection | 10. Pedestal Adjustment |
| 11. Horizontal & Vertical Aperture Correction Slice Level Adjustment | |
| 12. Vertical Aperture Correction Slice Level Adjustment | |
| 13. Horizontal Aperture Correction (Low Band) Gain Level Adjustment | |
| 14. Horizontal Aperture Correction (High Band) Gain Level Adjustment | |
| 15. Vertical Aperture Correction Gain Control Adjustment | |
| 16. Horizontal & Vertical Aperture Correction Gain Adjustment | |
| 17. Manual Iris Speed Selection (Refer to Page33) | |
| 18. Manual Zoom Speed Selection (Refer to Page 29) | |
| 19. Manual Focus Speed Selection (Refer to Page 32) | |
| 20. Auto Focus Mode Selection (Refer to Page 31) | |
| 21. IR Cut Switch | |

❷ Setup Menu Item Selection

- 》 Push the joystick down to select next item.
- 》 Push the joystick up to select previous item.
- 》 Push the joystick left or right to make selection.



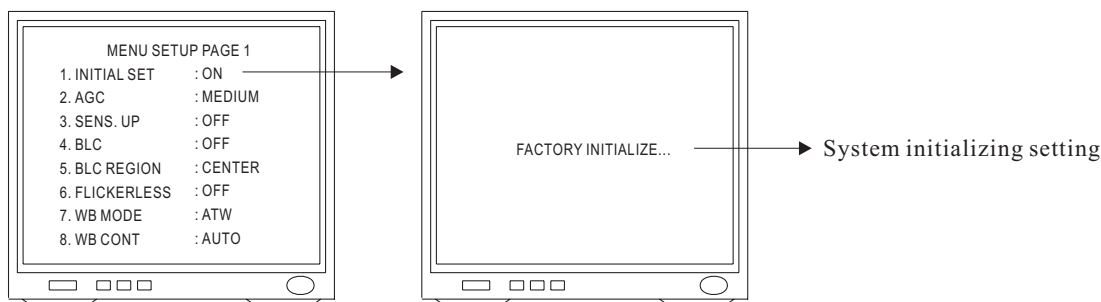
❸ To Exit Setup Menu

Push **CAM ESC** key, "Setup Initialize..." message will be displayed on the monitor for 4~5 seconds. All setting is stored in Fast Dome.

Initial Setting (Factory Default)

To reset all functions back to initial factory setting.

- 1 Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- 2 Move joystick to select 1st item "Initial Set" on menu and move joystick left or right to make selection. Once ON is selected, "Factory Initialize..." message will be displayed on screen for 4-5 seconds.

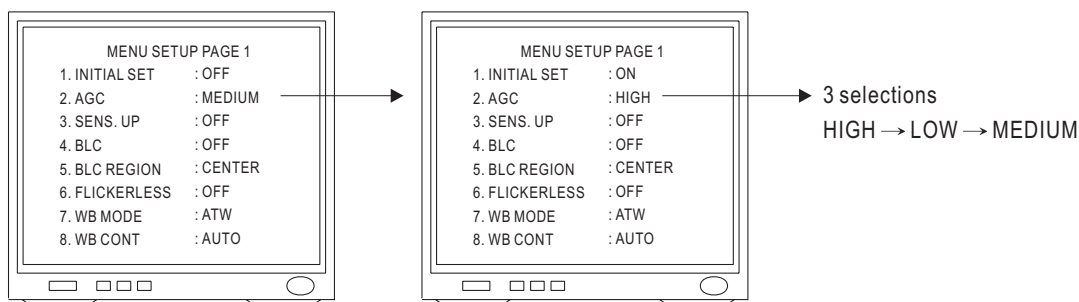


- 3 When "Initialize" is done, monitor screen will switch back to Setup Menu.
- 4 Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Auto Gain Control Selection

There are 3 different AGC levels can be selected. (Low = 8dB ; Medium = 22dB ; High = 36dB)
 Different AGC levels may make different camera performance under low light environment.
 (Factory Default AGC is Medium)

- 1 Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- 2 Move joystick to select 2nd item "AGC" on menu.
- 3 Move joystick right or left to make selection : High → Low → Medium



- 4 Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Sensitivity Up (Enhancement)

Sensitivity Up function allows user to select different Video Gain (Y Gain) control. (Auto/On/Off)

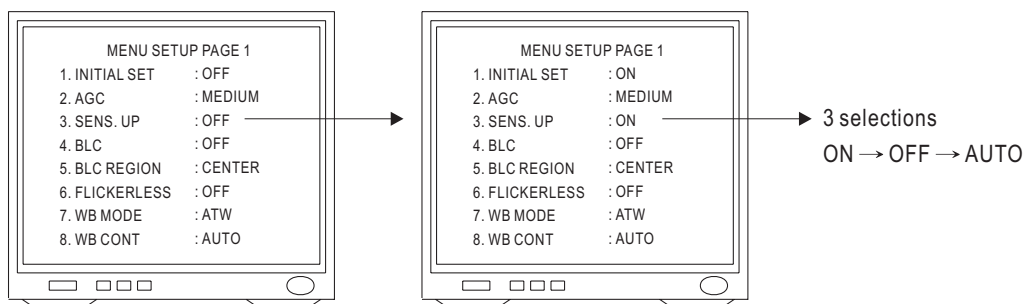
AUTO : System auto turn on or off Video Gain Control function according to target's brightness.

ON : Video Gain Control Enhancement always on.

OFF : Video Gain Control Enhancement always off.

(Factor Default is AUTO)

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 3rd item "SENS UP" on menu.
- ❸ Move joystick right or left to make selection : "Auto → On → Off".



- ❹ Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

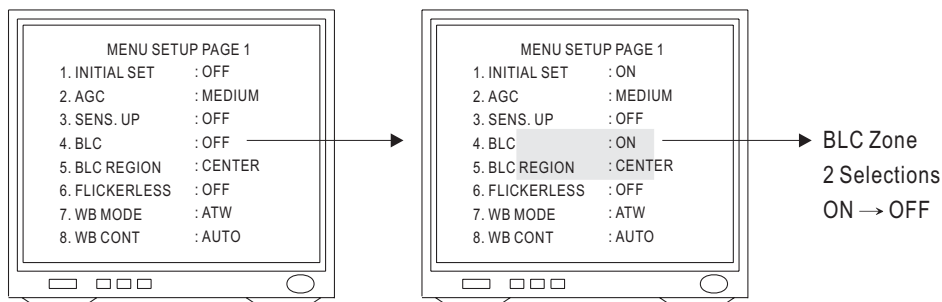
Back Light Compensation

Back Light Compensation can be turned on or off. (Factory Default is OFF)

To turn on or off BLC:

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 4th item "BLC" on menu.
- ❸ Move joystick right or left to make selection : On → Off

Note : When "ON" is selected, BLC zone will be showed on monitor screen.



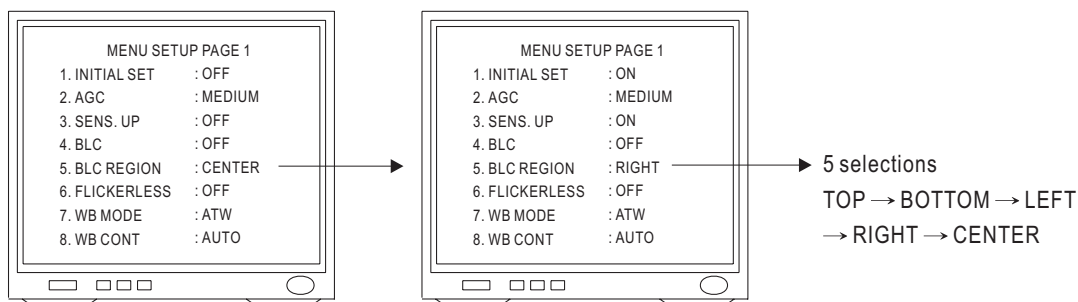
- ❹ Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Back Light Compensation Zone Selection

One of five different zone can be selected for BLC. (Factory Default is Center)

To select BLC zone :

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 5th item "BLC Region" on menu.
- ❸ Move joystick right or left to make selection : "Top → Bottom → Left → Right → Center".



- ❹ Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

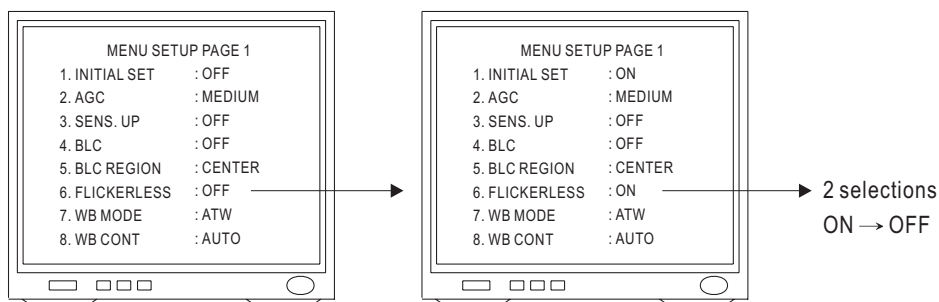
Flickerless

Flickerless function can be turned on or off. (Factory Default is OFF)

To turn on or off Flickerless:

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 6th item "Flickerless" on menu.
- ❸ Move joystick right or left to make selection : On → Off

Note : When "ON" is selected, Shutter Speed will be fixed at 1/100sec in NTSC or fixed at 1/120sec in PAL.



- ❹ Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

White Balance Mode Selection

One of four different White Balance Modes can be selected. (Factory Default is ATW)

ATW : Auto Trace White Balance, is a feedback system that automatically aligns the white balance by detecting the R-G and B-G before gamma correction processing.

AWC : Auto White Balance Correction, is performed at a faster operating speed than ATW without an operation or other limitations.

Indoor : Fix mode White Balance, suitable for 3200K color temperature environment.

Outdoor : Fix mode White Balance, suitable for 6400K color temperature environment.

To select White Balance Mode:

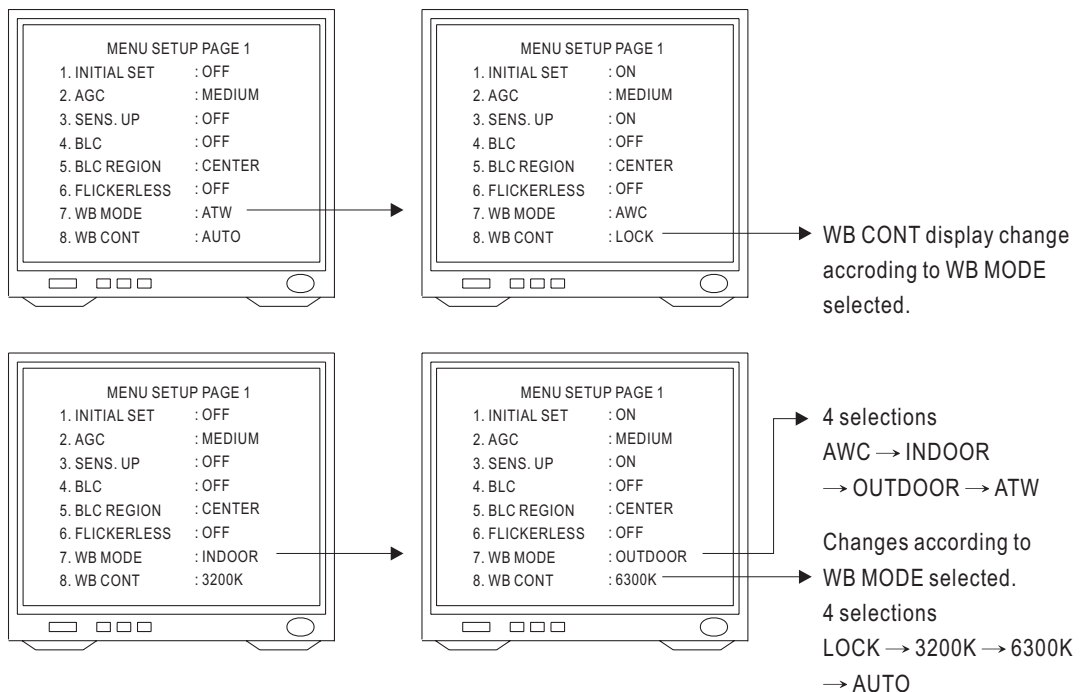
- ❶ Push **CAM SETUP CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 7th item "WB Mode" on menu.
- ❸ Move joystick right or left to make selection : "AWC → Indoor → Outdoor → ATW".

Note : When AWC is selected, "Lock" will be showed under "WB Cont".

When Indoor is selected, "3200K" will be showed under "WB Cont".

When Outdoor is selected, "6400K" will be showed under "WB Cont".

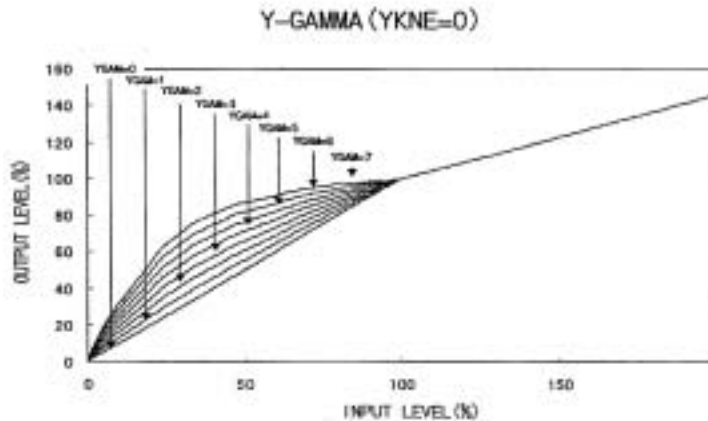
When ATW is selected, "Auto" will be showed under "WB Cont".



- ❹ Push **CAM ESC AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

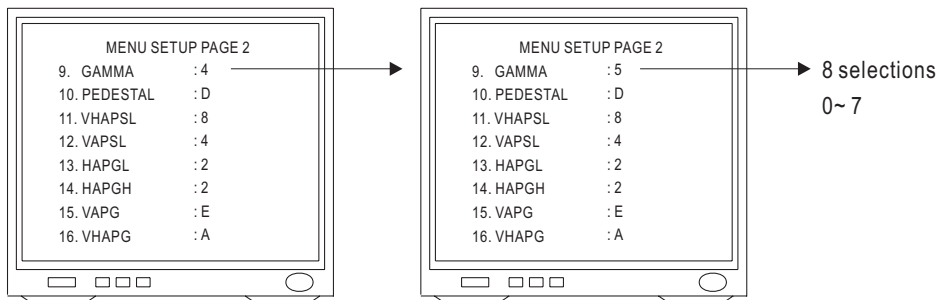
Gamma Adjustment (Brightness)

8 levels of Gamma (Brightness) can be adjusted. (Factory Default is 4)



To adjust gamma level :

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 9th item "Gamma" on menu.
- ❸ Move joystick right or left to make selection : "0 ~ 7".



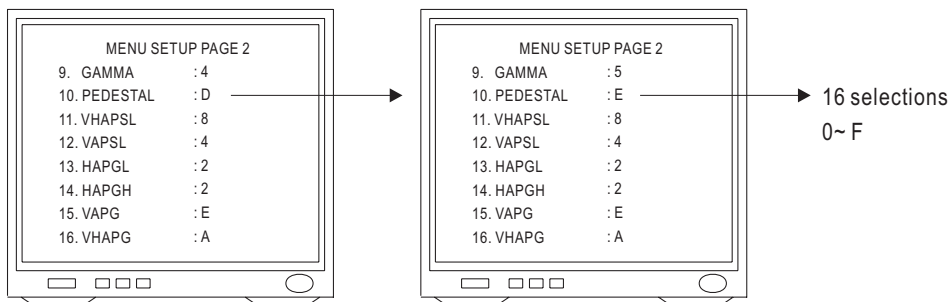
- ❹ Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Pedestal Adjustment

16 levels of Pedestal can be adjusted. (Factory Default is D)

To adjust pedestal levels:

- ❶ Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- ❷ Move joystick to select 10th item "Pedestal" on menu.
- ❸ Move joystick right or left to make selection : "0~ F"



- ④ Push **CAM ESC** / **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

Aperture Correction Adjustment

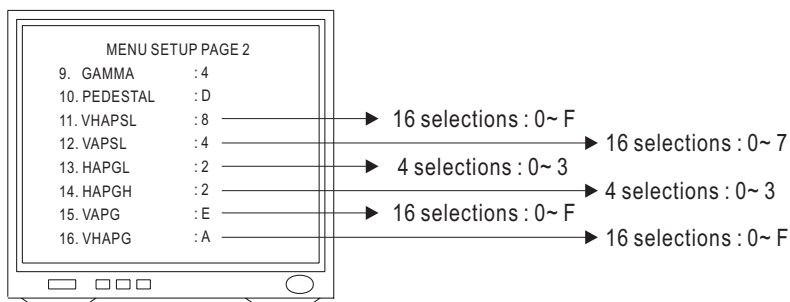
The 11th item to 16th item on the menu are different aperture correction function.

User can adjust the aperture correct level.

- 11 VHAPSL : Vertical & Horizontal Aperture Correction Slice level : 16 levels
(Factory Default is 8)
- 12 VAPSL : Vertical Aperture Correction Slice level : 8 levels (Factory Default is 4)
- 13 HAPGL : Horizontal Aperture Correction (Low Band) Gain level : 4 levels
(Factory Default is 2)
- 14 HAPGH : Horizontal Aperture Correction (High Band) Gain level : 4 levels
(Factory Default is 2)
- 15 VAPG : Vertical Aperture Correction Gain Control : 16 levels (Factory Default is E)
- 16 VHAPG : Horizontal & Vertical Aperture Correction Gain : 16 levels
(Factory Default is A)

To adjust Aperture Correction Gain:

- ① Push **CAM SETUP** / **CTRL 1** key to recall OSD setup menu.
- ② Move joystick to select 11th ~ 16th items on menu.
- ③ Move joystick right or left to make selection.



- ④ Push **CAM ESC** / **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

IR Cut Switch

One of three different IR Cut modes can be selected. (Factory Default is AUTO)

AUTO : IR Cut filter auto switch according to Lux level.

☛ When light is over 5 Lux, IR Cut filter auto switch in and produce color image.

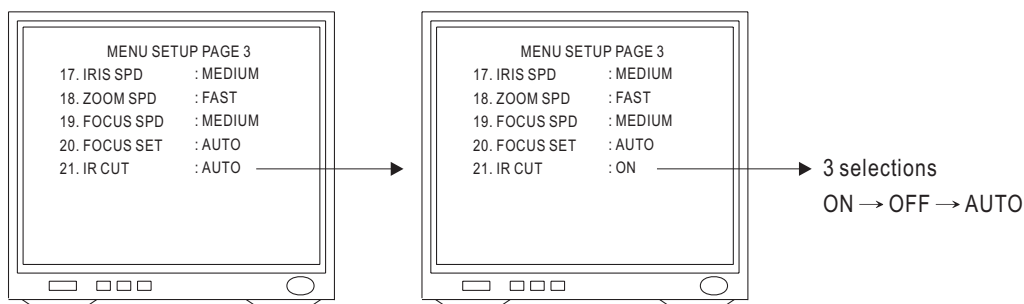
☛ When light drops below 3 Lux, IR Cut filter auto switch out and produce monochrome image, under monochrome mode sensitivity is increased to 0.01 Lux and can be use with IR lighting.

ON : Always produce color images.

OFF : Always produce monochrome images.

To switch IR Cut filter:

- 1 Push **CAM SETUP** **CTRL 1** key to recall OSD setup menu.
- 2 Move joystick to select 21st item "IR Cut" on menu.
- 3 Move joystick right or left to make selection : "ON → OFF → AUTO".



- 4 Push **CAM ESC** **AUX LIGHT** key to exit menu, when finish or move joystick to select next item.

SPECIFICATION

Operational

Manual Pan / Tilt Speed	0.18° ~ 180° /sec (8 stages)
Preset Position Pan / Tilt Speed	1° ~ 255° /sec
Preset Position Dwell Time	1 ~ 255 secretary
Recall Preset Position Pan / Tilt Speed	360° /sec
180° Instant Flip Rotation Speed	360° /sec
Pan Rotation	360° Continuous
Tilt Rotation	-5° ~ +95°
Pan / Tilt Accuracy	± 0.25
Preset Position	128 preset positions (memory)
Preset Group	4 Group (Corresponding with first 16 presets)
Address Setting	1 ~ 64 ID setting

Camera

Image Device	1/4 Inch Interline Transfer CCD
Horizontal & Vertical Pixel	NTSC (811x508) PAL (795x596) NTSC (768x494) PAL (752x582)
Scanning System	2:1 Interlace
Horizontal Resolution	17X/22X : 480 TV Lines 25X : 570 TV Lines (Monochrome) 480 TV Lines (Color)
Minimum Illumination	17X : 0.3Lux at F1.4 22X : 0.3Lux at F1.6 25X : 0.01Lux at F1.6 (Monochrome) 0.1Lux at F1.6 (Color)
S / N Ratio	>50dB (AGC OFF)
Synchronization	Internal
Horizontal & Vertical Synchronization	NTSC (15.734KHz/60Hz) PAL (15.625KHz/50Hz)
Auto Gain Control	ON (20dB) / OFF (8dB) Low(8dB) / Medium(22dB) / High(36dB)
Back Light Compensation	ON (Background Adjustable) / OFF
Back Light Compensation Zone	17X/22X :
Sensitivity Up	25X : Top / Bottom / Left / Right / Center 25X : On / Off / Auto
White Balance	17X/22X : Auto / Outdoor / Indoor 25X : 2 Auto mode / Outdoor / Indoor
Video Output	CVBS 1.0Vpp 75Ω

Optical Lens

17X Lens Focal Length	f = 3.9 ~ 66.3mm
17X Lens Aperture Max	F1.4 (wide) ~ F3.6 (telephoto)
17X Horizontal View Angle	50.9° (wide) / 4.2° (telephoto)
22X Lens Focal Length	f = 3.9 ~ 86mm
22X Lens Aperture Max	F1.6 (wide) ~ F3.6 (telephoto)
22X Horizontal View Angle	50.9° (wide) / 2.4° (telephoto)
25X Lens Focal Length	f = 3.8 ~ 95.0mm
25X Lens Aperture Max	F1.6 (wide) ~ F3.7 (telephoto)
25X Horizontal View Angle	51.9° (wide) / 2.2° (telephoto)
Focus Control	17X/22X : Auto / Manual 25X : Auto / One Shot / Manual (3 selections)
Iris Control	17X/22X : Auto / Manual 25X : Auto / Manual (2 selections)
Zoom In / Out	Manual Control
Zoom In / Out Accuracy	± 5%

Electrical

Power Supply	24Vac or 90Vac ~ 260Vac (Option)
Input Voltage	12Vdc
Power Consumption	13W
Control Interface	RS-485 (1 Input / 1 Output)
RS-485 Voltage	5.6V
Alarm Input	6 Inputs (Pull up)
Alarm Input Voltage	5.6V
Alarm Output	1 Output (NC or NO mode)
Alarm Output Voltage	0.5A 120Vac / 1A 24Vdc
Alarm Response Mode	Lock or Release Mode

Environmental

Operation Temperature	-5°C ~ +50°C
Operation Humidity	0% ~ 90%

Mechanical

Height	208mm (8.3")
Diameter	145mm (5.6")
Weight (Fast Dome Alone)	2.5Kg
Weight (With External Housing)	5Kg

External Housing

Electrical

Power Supply	24Vac or 90Vac ~ 260Vac (Option)
Input Voltage	12Vdc
Power Consumption	7.5W
Control Interface	RS-485 (1 Input / 1 Output)
RS-485 Voltage	5.6V
Alarm Input	6 Inputs (Pull up)
Alarm Input Voltage	5.6V
Alarm Output	1 Output (NC or NO mode setting)
Alarm Output Voltage	0.5A 120Vac / 1A 24Vdc

Environmental

Operation Temperature	-20°C ~ +50°C
Operation Humidity	0% ~ 90%

Mechanical

Height	340mm (13.4")
Diameter	250mm (9.8")
Weight (Housing Alone)	2.5Kg
Weight (With Fast Dome)	5Kg

APPENDIX A

PIH-800II

Quick Reference Table		
Function		Operation
Pan / Tilt Control	To Tilt Up	Push Joystick Forward
	To Tilt Down	Push Joystick Down
	To Tilt Left	Push Joystick Left
	To Tilt Right	Push Joystick Right
Dome Selection		Numeric Key + CAM
Zoom In		ZOOM IN
Zoom Out		ZOOM OUT
Manually Bring The Object Farther		FOCUS FAR (Auto Focus LED off)
Manually Bring The Object Closer		FOCUS NEAR (Auto Focus LED off)
Auto Focus		AUTO FOCUS (Auto Focus LED on)
Open Iris		IRIS O (Auto Iris LED off)
Close Iris		IRIS C (Auto Iris LED off)
Auto Iris		AUTO IRIS (Auto Iris LED on)
180° Horizontal Instant Flip		180° REV
Set or Recall Preset Position		Numeric Key + PRESET (128 preset position)
Set Preset Speed		Numeric Key + F1 (1° ~ 255°/sec)
Set Preset Dwell		Numeric Key + F2 (0 ~ 255 secretary)
Store Preset Data		1 + F3
Set Preset Group		Numeric 1,2,3,4 + F4 (4 Group)
Activate Auto Pan		AUTO PAN (Auto Pan LED on)
Stop Auto Pan		AUTO PAN (Auto Pan LED off)
Delete 128 Preset position Data		9 0 1 1 + CLR
Reset Alarm		ALARM RESET

Quick Reference Table		
Function		Operation
Pan / Tilt Control	To Tilt Up	Push Joystick Forward
	To Tilt Down	Push Joystick Down
	To Tilt Left	Push Joystick Left
	To Tilt Right	Push Joystick Right
Dome Selection		Numeric Key + CAM
Zoom In		ZOOM IN
Zoom Out		ZOOM OUT
Manually Bring The Object Farther		FOCUS FAR (LCD display F=M)
Manually Bring The Object Closer		FOCUS NEAR (LCD display F=M)
Auto Focus		AUTO FOCUS (LCD display F=A)
Open Iris		IRIS O (LCD display I=M)
Close Iris		IRIS C (LCD display I=M)
Auto Iris		AUTO IRIS (LCD display I=A)
180° Horizontal Instant Flip		180° REV
Set or Recall Preset Position		Numeric Key + PRESET (128 preset position)
Set Preset Speed		Numeric Key + F3 (1° ~ 255°/sec)
Set Preset Dwell		Numeric Key + F2 (0 ~ 255 secretary)
Store Preset Data		1st ~ 16th : Auto Store , 17th ~ 128th : F3
Set Preset Group		Numeric Key + F4 (4 Group)
Activate Auto Pan		AUTO PAN
Stop Auto Pan		AUTO PAN
Delete 128 Preset position Data		9 0 1 1 + CLR
Reset Alarm		ALARM RESET

APPENDIX B

Trouble Shooting

1. No Power

- 1-1. Check power input connection
- 1-2. Check fuse on the PCB
- 1-3. Check connection between camera body and base

2. No Video

- 2-1. Check camera video output on camera
- 2-2. Check cable (damaged cable)
- 2-3. Check video input connection on monitor
- 2-4. Check 20PIN connection between camera body and base

3. No Telemetry

- 3-1. Check camera ID switch setting
- 3-2. Check RS-485 cable IN / OUT connection on camera
- 3-3. Check RS-485 cable IN / OUT connection on keyboard
- 3-4. Check if the fast dome is under Auto Pan mode Please deactivate the Auto Pan
- 3-5. Check if alarm is triggered, Cancel triggered alarm

4. Poor Focusing

- 4-1. Dusts on dome cover or housing cover. Clean the cover with cotton cloth

Installation Kit

Item	Unit	Type
Power Supply	1	Embedded / Attached
Power Cable	1	Embedded / Attached
M4 x 25 Tapping Screw-flat head	3	Embedded
M4 x 30 Machine Screw-flat head	3	Embedded
M4 x 6 Machine Screw-black	6	Embedded
Screw Nut	3	Embedded
Ceiling Ring	1	Embedded
L Shape Screw Nut	3	Embedded
Fix Ring	1	Embedded
Decoration Ring	1	Embedded
M4 x 25 Tapping Screw-round head	3	Attached
Plastic Screw Nut	3	Attached
Decoration Ring	1	Attached

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Web site : www.meritlilin.com



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PLP-7000CSE-3