

**INSTALLATION / OPERATING MANUAL** 

# **IR Speed PTZ Camera**

- Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.
- The design and specifications are subject to be changed without prior notice to improve product's quality.

## TABLE OF CONTENTS

1.	PRECAUTIONS         1. 1 Important Safety Instruction	Зр.
2.	GETTING STARTED	
	2. 1 Unpacking	4р.
	2. 2 Part name	4p.
	2. 3 DIP Switch Setting	5p.
	2. 4 Cable Connection	6р.
3.	INSTALLATION	
•••	3. 1 Installation	7n
		γp.
4.	ON-SCREEN DISPLAY PROGRAM MENU	
	4. 1 Motion Setting	9р.
	4. 2 Dome Setting	28p
	4. 3 Clear Setting	37p
	4. 4 PTZ Reset	37p
	4.5 Other Quick Opercating Guide	37p
5	SPECIFICATION	
5.	5 1 Mechanism Specification	200
		38h
6.	DIMENSION	
	6.1 DIMENSION	39p
_		P
1.	CONFIGURATION	
	7.1 Connecting to Keyboard with DVR	42p

## **1. PRECAUTIONS**



### 1.1 Important Safety Instruction

- Read these instructions.
- Pay attention on all the warnings.
- Follow all instructions.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not dissemble or insert foreign objects.
- Do not install near any heat sources such as radiation, beat registers, stoves, or other apparatus. (Including amplifiers) that produce heat.
- Do not aim the camera at the sun or any other strong light source.
- Do not install the camera in intermittent lighting environments.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Installation should be done only by qualified personnel and conform to all local codes.
- Installation should be done in a place strong enough to hold it.
- Use only installation methods and materials capable of supporting four times the maximum specified load.
- It is designed for indoor use only and it must not be installed where exposed to rain and moisture without additional outdoor housing and bracket.
- To prevent damage from water leakage when installing a mount outdoors on a roof or wall, apply sealant around the bolt holes between the mount and mounting surface.
- These instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other that contained in the operating instructions unless you are qualified to do so.
- Only use replacement parts recommended by manufacturer.ad these instructions.

## 2. GETTING STARTED

## 2.1 Unpacking

The following parts are supplied with the outdoor speed PTZ system. < Figure 1. package Components >



## 2.2 Part name



## 2.3 DIP Switch Setting

Before start up the camera, set the protocol and camera address and termination set with dip-switches and click-switches as shown in the below diagram.

#### 1.Set the camera address (ID)

Open the top cover of the product to set camera address.



Address switch

\* ID setting is 1~255 available



S1 : 1-digit number of address S3 : 10-digit number of address S4 : 100-digit number of address Ex) S4 = 1 S3 = 2 S1 = 8

The ID number is 128.

#### 2. Protocol, Baudrate, Camera setting

ON DIP	1	2	3	PR	ОТ	OCOL		4	5	6	BAUDRATE
	OFF	OFF	OFF	PE	ELC	:0-D		OFF	OFF	OFF	2400
	OFF	OFF	ON	PE	ELC	:0-P		OFF	OFF	ON	4800
	OFF	ON	OFF	١	W٦	ΓX		OFF	ON	OFF	9600
	OFF	ON	ON		ΕZ	Р		OFF	ON	ON	19200
	ON	OFF	OFF		N	С		ON	OFF	OFF	38400
	ON	OFF	ON		N	С		ON	OFF	ON	57600
	ON	ON	OFF		N	С		ON	ON	OFF	115200
	ON	ON	ON		N	С		ON	ON	ON	NC
		_			_		-				
	7		RSMO	DE		9	R	S LOO	Ρ	11	I IP SELECT
	OFF		RS-42	22		OFF		OFF		OF	F IP OFF
	ON		RS-48	35		ON		ON		0	N IP ON
					_						
	8		NTSC/I	PAL		10		NC		12	2 ВООТО
	OFF		NTS	0		OFF		NC		OF	F OFF
	ON		PAL			ON		NC		0	N PROGRAM MODE
					_						

#### 3.Set the termination On/Off

9 ON	: Terminated	The device which is connected at the end of the line must have the cable communication terminated. Without proper termination, there is potential for control signal errors.
9 OF	F : Not terminated	The product have the cable communication terminated by setting the appropriate dip switch.

## 2.4 Cable connection

#### 2. 4. 1 Power/Data communication cable connection



#### 2. 4. 2 RS-485/RS-422 Connection

#### RS-422/485 connection

The PTZ can be remotely controlled by an external device or control system, such as a control keyboard or DVR, using RS-485 half-duplex, RS-422 duplex or simplex serial communication signals. Connect marked TRx +, TRx- to Tx + and Tx- of the RS-485 control system. If control system is RS-422, connect Tx +, Tx- of controller to Rx + and Rx- of the PTZ Camera series. And also connect the Tx +, Tx- to Rx +, Rx- of the control device respectively. Total length of the cable for communication should not exceed 1.2Km.

#### 2. 4. 3 HD-SDI Output connection

Connect the HD-SDI out (BNC) connector to the monitor or video input of DVR. Video cable and RS-485/422 communication cable are not provided in this product's package.



Do not connect the AC24V power terminal to the communication terminal. - Power Terminal: 2PIN

- Com Terminal: 4PIN

## 3.Installation

- The following steps of installation and connection work should be done by qualified service personnel or system installers and should conform to all local codes.
- Be sure to switch the camera off before installation is completed.
- Do not install the camera near the air outlet of an air conditioner.
- Before installation, set the system with Dip switch on the back side of the mechanism part, and assemble the mechanism and housing according to the below instruction

## 3.1 Installation



Set the mount to the ceiling bracket by trun it to clockwise.



Push the knob of mount and pull down. Connect the cable. (See the page6)



To insert or remove the SD card, open the protective cap and put up the slot cover of SD card. Cover the protective cap after insert the SD card to prevent foreign substance damage.



After connecting the cable, set the mount in the proper position and fix the 2 screws (M4\*8)



- 1. Connect the safety loop on the body and mount back side.
- 2. Align the arrow mark in the body and mount.
- 3. Fix the body by turn it to clockwise.
- \* Please check the direction of connector in the camera body and mount.



Fix the provided mount screws to the PTZ camera tightly.



Fix the bolt tighten not to make a room between combinatorial parts to avoid any water-leakage from outside.

## 4. ON-SCREEN DISPLAY PROGRAM MENU

INIT	TALIZE
PTZID	: 001
FIRMWARE	: X.XX
V-FORMAT	: 1080p30
CVBS	: NTSC
PROTOCOL	: PELCO D V1.0
BUADRATE	: 2400 ,N.1
CAMERA	: MMC
>>PAN OFFSET	PASS
>>TILT OFFSET	PASS
NORMAL SETTIN	G WAIT

The initialize screen is shown up to check address, version, protocol and video when the power on.

\* You can not go into the menu in the IP mode.

### 4.1 Motion Setting

\* After label setting, set the motion function.

#### 4. 1. 1 Preset

MAIN MENU	Preset Quick Operating Guide
MOTION ► DOME ▷ CAMERA ▷ CLEAR ▷ PTZ RESET EXIT < NEAR / RIGHT MOTION >	Set Preset : $1 \sim 255 + $ 3sec. Go to Preset : $1 \sim 255 + $
MOTION MENU       PRESET     ►       TOUR     ▷       GROUP     ▷       SCAN     ▷       PATTERN     ▷       AREA     ▷       ALARM     ▷       PRIVACY     ▷       BACK     EXIT       < NEAR / RIGHT     ▷	The preset function is that the camera memorizes positions of the pan/tilt and zoom. This function is a representative function of the PTZ camera which can find memorized preset positions just by selecting the preset No. A Maximum of 255 Preset positions are toured in order.

#### (1) Select the Preset number

P01 : Defined Preset number / 01 : Undefined Preset number



(2) Set the Preset Label

Move :	JOYSTICK	Select :	TELEO	JOYSTICK	Delete :	WIDE Or	JOYSTICK
--------	----------	----------	-------	----------	----------	---------	----------

It's available to set the desired label, displayed on the executing screen of Preset.

PRESET MENU	PRESET LABEL EDIT (01)
	LABEL : PRESET 01
PRESET NO : 01 DEFINE	0 1 2 3 4 5 6 7 8 9 (
POSITION : XXX . X, XXX. X	) А В С Д Е F G H I J К
FOCUS : AUTO	L M N O P Q R S T U V W
	XYZ./,+-=<>()
SAVE CLR BACK EXIT < NEAR / RIGHT ▷ LABEL >	<store joystick="" move="" tele="" ▷=""> &lt; delete ▷ Wide Back ▷ Near &gt;</store>

After the label is set, push the NEAR button to exit.

#### (3) Define the Preset position

- (1) Select the Position menu
- ② Move and set the position
- (3) Set & Back



#### (4) Select the focus mode for Preset

Select the Focus menu





2 Move and set the Focus Menu



PRESET MENU	-
PRESET NO : 01 DEFINE LABEL : POSITION : 000 0 000 0	
FOCUS : AUTO	
SAVE CLR BACK	EXIT

PRESET MENU
PRESET NO : 01 DEFINE LABEL : POSITION : 000.0,000.0 FOCUS : AUTO
SAVE CLR BACK EXIT < NEAR ▷ DATA SAVE >

- On focus menu, there are 3 modes : Auto, Manual, Onepush. Focus will be adjusted once after preset moving.
- (5) "Save" above setting Pattern data to the memory.
- (6) "CLR" means above setting Pattern data will not be saved and be cleared.
- (7) "BACK" means it goes back to the previous menu :Motion.
- (8) "EXIT" means it goes out of MENU.

#### 4.1.2 Tour



The Tour function consists of several presets run by turn. It is also adjusts the moving speed  $(0 \sim 63 \text{ step})$  and dwell time  $(1 \sim 99 \text{secs})$ . Maximum of 8 Tour functions are toured in order.

( % 1 Tour can be set for 15 presets. )

#### (1) Select the Tour number

T01 : Defined Tour number / 01 : Undefined Tour number



(2) Set the Tour Label	
Move : $\bigoplus_{JOYSTICK}$ Select : $\prod_{JOYSTICK}$ or $\bigoplus_{JOYSTICK}$ Delete : It's available to set the desired label, displayed on the	e executing screen of Tour.
TOUR MENU	TOUR LABEL EDIT (01)
TOUR NO : 01 DEFINE LABEL : TOUR EDIT :	LABEL : TOUR 01 0 1 2 3 4 5 6 7 8 9 ( ) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z . / , + - = < > ()
SAVE CLR BACK EXIT < NEAR / RIGHT ▷ LABEL >	<pre>&lt; STORE ▷ TELE MOVE ▷ JOYSTICK &gt; &lt; DELETE ▷ WIDE BACK ▷ NEAR &gt;</pre>

After the label is set, push the NEAR button to exit.

#### (3) Define the Preset position

or

TOUR NO : 01 DEFINE LABEL : TOUR 01

TOUR EDIT

SAVE CLR NEAR / RIGHT

NEAR

① Move to the set-up window

JOYSTICK

TOUR MENU

BACK

TOUR EDIT >

EXIT



PRESET

XXX XXX

⊲ XXX ⊲ XXX ⊲ XXX

NO

< SEL & NEAR

< SEL & NEAR

TOUR EDIT (02)

SPEED

XX XX XX XX XX

XX XX XX

Set &	Back
-------	------

NEAR

TOUR SELECT 1
001 002 003 004 005 006
007 008 009 010 011 012
013 014 015 016 017 018
 019 020 021 022 023 024
025 026 027 028 029 030
031 032 033 034 035 036
037 038 039 040 041 042
043 044 045 046 047 048
049 050 051 052 053 054
<sel &="" joystick="" move="" ▷near=""></sel>

	TOU	JR MENU	
TOUR NO LABEL : TOUR ED	: 01 DEFIN Tour 01 IT :	νE	
SAVE	CLR	BACK	EXIT
< NEAR	> DATA SA	VE >	

(4) "Save" above setting Pattern data to the memory.

DWELL

XX XX XX XX

XX

XX XX XX

PRESET & LEFT >

DELETE & WIDE >

- (5) "CLR" means above setting Pattern data will not be saved and be cleared.
- (6) "BACK" means it goes back to the previous menu :Motion.
- (7) "EXIT" means it goes out of MENU.

#### 4. 2. 3 Group





GROUP : You can make Max. 6 groups and call the saved tour by turn.

(1) Select the Group number

G01 : Defined Group number / 01 : Undefined Group number Set from 1to 6 groups.



#### (2) Set the Group Label TELE WIDE Move : Select : Delete : or JOYSTICK IOVISTICK It's available to set the desired label, displayed on the executing screen of Group. GROUP MENU GROUP LABEL EDIT LABEL : GROUP NO : 01 0 1 2 3 4 5 6 7 8 9 ( LABEL : ) A B C D E F G H I J K GROUP EDIT ▷ LMNOPQRSTUVW $X Y Z . / , + - = < > \bigcirc$ SAVE CLR BACK EXIT <STORE ▷ TELE MOVE ▷ JOYSTICK > < NEAR / RIGHT > LABEL> < DELETE $\triangleright$ WIDE BACK $\triangleright$ NEAR

Move and Delete

WIDE

After the label is set, push the NEAR button to exit.

#### (3) GROUP EDIT

Move to the set-up window



- GROUP EDIT : Set the tour from 1 to 6 of group.

PRESET & LEFT >

DELETE & WIDE >

	GRO	UP MENU	
GROUP N LABEL : GROUP F	NO∶01 EDIT ⊳		
SAVE	CLR	BACK	EXIT
< NEAR	DATA SA	VE >	

(4) "Save" above setting Pattern data to the memory.

Set & Back

NEAR

- (5) "CLR" means above setting Pattern data will not be saved and be cleared.
- (6) "BACK" means it goes back to the previous menu :Motion.
- (7) "EXIT" means it goes out of MENU.

#### 4.1.4 Scan



The Scan function means that the camera keeps panning between two programmed pan positions. It is also adjusts the moving speed(1~63 step). Maximum 8 Scan functions are toured in order.

PRESET

3sec.

3sec.

#### (1) Select the Scan number

S01 : Defined Scan number / 01 : Undefined Scan number



#### (2) Set the Scan Label



It's available to set the desired label, displayed on the executing screen of Scan.

SCAN MENU	SCAN LABEL EDIT(01)
SCAN NO : 01 DEFINE LABEL : SCAN 01 START POS : XXX X XXX X	LABEL : SCAN 01 0 1 2 3 4 5 6 7 8 9 (
END POS : XXX . X, SPEED : XX DWELL : XX FOCUS : NONE	Image: A B C DEFGH 1 J K           L M N O P Q R S T U V W           X Y Z . / , + - = < > ()
SAVE CLR BACK EXIT < NEAR / RIGHT ▷ LABEL >	<store joystick="" move="" tele="" ▷=""> <delete back="" near="" wide="" ▷=""></delete></store>

After the label is set, push NEAR button to go out.

#### (3) Define the Start pan position

- (1) Select Start Pos menu ② Move and set the position (3) Go back NEAR NEAR or JOYSTICK JOYSTICK SCAN STRAT POSITION SCAN MENU SCAN NO: 01 DEFINE ABEI SCAN 01 START POS : 000 . 0 , 000 . 0 END POS :000.0,---SPEED : 60 : 02 DWELL FOCUS : AUTO POSITION : 000.0, 000.0 SAVE CLR BACK EXIT < EXIT > FOCUS NEAR > < NEAR / RIGHT > START POS >
- \* Save the zoom, Tilt and position.

#### (4) Define the End pan position

- 1 Select End Pos menu (2) Move and set the position 3 Go back or 🔅  $\mathbf{i}$ NEAR NEAR JOYSTICK JOYSTICK SCAN MENU SCAN END POSITION SCAN NO : 01 DEFINE LABEL SCAN 01 <u>START POS</u> :000.0,000.0 END POS : 000.0, ---60 DWELL 02 FOCUS : AUTO SAVE CLR BACK EXIT POSITION : 000.0, 000.0 < NEAR / RIGHT > END POS > < EXIT > FOCUS NEAR >
  - 17

#### (5) Set the Scan speed

Increase :

Decrease :

It adjusts the moving speed from  $1 \sim 63$  steps.

#### (6) Set the Dwell Time



Dwell time means the time that the camera stay at the start & end pan positions. It's adjustable from  $00 \sim 59$  seconds.

#### (7) Set the Focus

Decrease :

Focus can be set Auto or Manual.

- (8) Save above Scan data setting to the memory.
- (9) "CLR" means above setting Scan data will not be saved and be cleared.
- (10) "BACK" means it goes back to the previous menu :Motion.
- (11) "EXIT" means it goes out to MENU

	SCAN	MENU	
SCAN NO LABEL START POS END POS	): 01 DEFI : SCAN 01 5:000.0,00 : 000.0,	NE 00.0	_
DWELL FOCUS	: 02 : AUTO		
SAVE < NEAR / R	CLR JGHT ▷ M	BACK OVE SPEED >	EXIT

SCAN MENU	
SCAN       NO       :       01       DEFINE         LABEL       :       SCAN       01         START POS       :       000.0       ,       000.0         END       POS       :       000.0       ,          SPEED       :       60         DWELL       :       02         FOCUS       :       AUTO	
SAVE CLR BACK <near dwell="" right="" ▷=""></near>	EXIT

	SCAN MENU	
SCAN NO LABEL START POS END POS SPEED DWELL	: 01 DEFINE : SCAN 01 : 000 . 0 , 000 . 0 : 000 . 0 , : 60	
FOCUS	: AUTO	
SAVE < NEAR / RI	CLR BACK	EXIT

	SCAN	MENU	
SCAN NO LABEL START POS END POS SPEED DWELL FOCUS	: 01 DEFIN : SCAN 01 : 000 . 0 , 00 : 000 . 0 , : 60 : 02 : AUTO	Е 0.0	
SAVE <near td="" ▷<=""><td>CLR DATA SAVE</td><td>BACK</td><td>EXIT</td></near>	CLR DATA SAVE	BACK	EXIT

#### 4.1.5 Pattern



The Pattern function memorizes User's random moving path and zoom ratio. Total recording time limit is 90secs and maximum 4 Pattern functions are toured in order.

#### (1) Select the Pattern number

PAT01 : Defined Pattern number / 01 : Undefined Pattern number



(2) Set the Pattern Label Move :  $\underbrace{}_{JOVSTICK}$  Select :  $\underbrace{}_{IELE}$  or  $\underbrace{}_{JOVSTICK}$  Delete :  $\underbrace{}_{IODE}$  or  $\underbrace{}_{JOVSTICK}$ It's available to set the desired label, displayed on the executing screen of Pattern. PATTERN MENU PATTERN MOV : 01 DEFINE LABEL : 0 1 2 3 4 5 6 7 89 (

) A B C D E F G H I J K

L M N O P Q R S T U V W X Y Z . / , + - = < > ()

< STORE > TELE MOVE > JOYSTICK >

< DELETE > WIDE BACK > NEAR

After the label set, push NEAR button to go out.

EXIT

RECORD ▷

 $\triangleright$ 

CLR

< NEAR / RIGHT > LABEL >

PLAY

SAVE

- (3) Record and Save the User's random Pattern data
  - Select the "Record" Menu
     Move and record the pattern
     Set & Back
     INEAR Or JOYSTICK
     JOYSTICK



#### (4) Play back the recorded Pattern data



- (5) "Save" above setting Pattern data to the memory.
- (6) "CLR" means above setting Pattern data will not be saved and be cleared.
- (7) "EXIT" means it goes out of MENU.

#### PATTERN MENU

PATTERN NO : 01 DEFINE LABEL : RECORD ▷<08SEC> PLAY ▷

SAVECLREXIT< NEAR</td>▷DATA SAVE >

4.1.6 Area

MAIN MENU	MOTION MENU
MOTION ► DOME ▷ CAMERA ▷ CLEAR ▷ PTZ RESET	PRESET ▷ TOUR ▷ GROUP ▷ SCAN ▷ PATTERN ▷ AREA ►
BACK EXIT <near preset="" right="" ▷=""></near>	ALARM ▷ PRIVACY ▷ BACK EXIT < NEAR / RIGHT ▷ AREA >

The Area function means that it displays the Area name between two programmed pan positions. Maximun 16 Area functions are toured in order.

(1) Select the Area number

AR 01 : Defined Area number / 01 : Undefined Area number



After the label set, push NEAR button to go out.

#### (3) Define the Start pan position



\*\* Only pan position is adjustable, becaue tilt position is fixed when "Start Pan Position" is set.

(5) "Save" above setting Area data to the memory.

BACK

EXIT

- (6) "CLR" means above setting Area data will not be saved and be cleared.
- (7) "BACK" means it goes back to the previous menu :Motion.
- (8) "EXIT" means it goes out of MENU

SAVE

CLR

< MOVE & NEAR / JOYSTICK >

AREA MENU	
AREA NO : 01 DEFINE LABEL : AREA 01 START POS : 000 . 0 . STOP POS : 000 . 0 .	
SAVECLRBACK< NEAR	EXIT

000.0

FOCUS NEAR >

POSITION :

<EXIT

#### 4.1.7 Alarm

MAIN MENU	MOTION MENU
MOTION►DOME▷CAMERA▷CLEAR▷PTZ RESET	PRESET > TOUR > GROUP > SCAN > PATTERN > AREA > ALARM > PRIVACY >
BACK EXIT < NEAR / RIGHT ▷ PRESET >	BACK EXIT < NEAR / RIGHT > ALARM >

The Alarm function means that the camera moves to the programmed Preset position by the Alarm trigger. Maximum 8 Alarm functions are toured in order.

(1) Select the Alarm number

Alarm 01 : Defined Alarm number / 01 : Undefined Alarm number

ALARM MENU	ALARM SELECT
	<b>01</b> 02 03 04 05 06
ALARM NO : 01 UNDEFINE LABEL : PRESET NO. : XX	07 08
< <first label="" select="">&gt;&gt;</first>	
SAVE CLR BACK EXIT	
<near right=""> ALARM NO &gt; et the Alarm Label love : JOYSTICK Select : JOYSTICK De</near>	< SEL NEAR / MOVE JOYSTICK
<near <math="" right="">\triangleright ALARM NO &gt; et the Alarm Label love : <math>\bigoplus_{JOYSTICK}</math> Select : <math>\boxed{TELE}</math> or <math>\bigcirc_{JOYSTICK}</math> De is available to set the desired label, displayed of</near>	< SEL NEAR / MOVE JOYSTICK elete : $\bigcup_{JOYSTICK}$ or $\bigcap_{JOYSTICK}$ on the executing screen of Alarm.
<pre><near alarm="" d="" no="" right=""> et the Alarm Label love : Select : TELE or Or Operation De as available to set the desired label, displayed o ALARM MENU</near></pre>	< SEL NEAR / MOVE JOYSTICK > where : where or for the executing screen of Alarm. Alarm Label EDIT (01)
<pre>&lt; NEAR / RIGHT ▷ ALARM NO &gt;  et the Alarm Label love :</pre>	< SEL NEAR / MOVE JOYSTICK > elete : $intermediate or intermediate or inter$
<pre>&lt; NEAR / RIGHT <math>\triangleright</math> ALARM NO &gt; et the Alarm Label love : <math>\overbrace{JOYSTICK}</math> Select : <math>\boxed{ITELE}</math> or <math>\overbrace{JOYSTICK}</math> De 's available to set the desired label, displayed o ALARM MENU ALARM NO : 01 DEFINE LABEL :</pre>	< SEL NEAR / MOVE JOYSTICK > elete : $interms or interms or interms of Alarm.$ $ALARM LABEL EDIT(01)$ $LABEL : ALARM 01$ $0 1 2 3 4 5 6 7 8 9 ($
<pre>&lt; NEAR / RIGHT <math>\triangleright</math> ALARM NO &gt; et the Alarm Label love : <math>\bigoplus_{JOYSTICK}</math> Select : <math>\boxed{IELE}</math> or <math>\bigcirc_{JOYSTICK}</math> De 's available to set the desired label, displayed of ALARM MENU ALARM NO : 01 DEFINE LABEL : PRESET NO. : XX</pre>	< SEL NEAR / MOVE JOYSTICK > elete : $intermediate or intermediate or inter$
<pre>&lt; NEAR / RIGHT <math>\triangleright</math> ALARM NO &gt;  Set the Alarm Label Nove : <math>\overbrace{JOYSTICK}</math> Select : <math>\boxed{ITELE}</math> or <math>\overbrace{OYSTICK}</math> De 's available to set the desired label, displayed of ALARM MENU ALARM MO : 01 DEFINE LABEL : PRESET NO. : XX </pre>	< SEL NEAR / MOVE JOYSTICK > elete : $interms in the executing screen of Alarm.$ $ALARM LABEL EDIT(01)$ $LABEL : ALARM 01$ $0 1 2 3 4 5 6 7 89 ($ $A B C D E F G H I J K$ $L M N O P Q R S T U V W$

After the label is set, push the NEAR button to exit.

#### (3) Define the Preset position with Alarm trigger

Select the "Preset No"
 Move and set the position

③ Set & Back

Or JOYSTICK	JOYSTICK	NEAR
ALARM MENU		PRESET SELECT
ALARM NO : 01 DEFINE LABEL : PRESET NO. : 01		001         002         003         004         005         006           007         008         009         010         011         012           013         014         015         016         017         018           019         020         021         022         023         024
SAVE CLR BACK EXIT < NEAR / RIGHT ▷ SELECT PRESET >		015 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040 041 042 043 044 045 046 047 048 049 050 051 052 053 054 <sel &="" dnear="" ioystick="" move=""></sel>

- (4) "Save" above setting Alarm data to the memory.
- (5) "CLR" means above setting Alarm data will not be saved and be cleared.
- (6) "BACK" means it goes back to the previous menu :Motion.
- (7) "EXIT" means it goes out of MENU

ALARM MENU	
ALARM NO : 01 DEFINE LABEL : PRESET NO. : 01	

SAVECLRBACKEXIT< NEAR</td>▷DATA SAVE >

#### 4. 1. 8 Privacy Zone Masking

MAIN MENU	MOTION MENU
MOTION     ►       DOME     ▷       CAMERA     ▷       CLEAR     ▷       PTZ RESET	PRESET ▷ TOUR ▷ GROUP ▷ SCAN ▷ PATTERN ▷ AREA ▷ ALARM ▷ PRIVACY ▶
BACK EXIT < NEAR / RIGHT ▷ PRESET >	BACK EXIT <near privacy="" right="" ▷=""></near>

The Privacy Zone Masking function means that it sets the blocking territories to prevent camera functions for the privacy of personal reasons. Maximum of 8 Privacy Zone Masking functions are toured in order.

(1) Select the Privacy Zone number

Privacy 01 : Defined Alarm number / 01 : Undefined Alarm number

PRIVACY MENU	PRIVACY SELECT
PRIVACY NO : 01 UNDEFINE POSITION : XXX.X,XXX.X	<b>01</b> 02 03 04 06 07 08
<- <first num="" select="">&gt; SAVE CLR BACK EXIT &lt; NEAR / RIGHT &gt; PRIVACY NO &gt;</first>	< SEL NEAR / MOVE ▷ JOYSTIC
love : $\bigoplus_{JOYSTICK}$ Select : $\boxed{TELE}$ or $\bigcirc_{JOYSTICK}$ Delete is available to set the desired position and size of	e : I or
love : $\bigoplus_{JOYSTICK}$ Select : $\boxed{\text{TELE}}$ or $\bigoplus_{JOYSTICK}$ Delete is available to set the desired position and size of $\underline{\text{PRIVACY MENU}}$	e : I or
Set the Privacy zone Position Nove : $\bigoplus_{JOYSTICK}$ Select : $\boxed{\text{TELE}}$ or $\bigoplus_{JOYSTICK}$ Delete 's available to set the desired position and size of <u>PRIVACY MENU</u> PRIVACY NO : 01 UNDEFINE POSITION : XXX.X,XXX.X	e : The blocking territories freely.

Adjust the MASK SIZE : OPEN (Lager), CLOSE (smaller) After the Privacy Zone is set, push the NEAR button to go out.

- (3) "Save" above settings of Privacy Zone data to the memory.
- (4) "CLR" means above setting of Privacy Zone data will not be saved and be cleared.
- (5) "BACK" means it goes back to the previous menu :Motion.
- (6) "EXIT" means it goes out of MENU.

PRIVACY MENU	
PRIVACY NO: 01 UNDEFINE POSITION: XXX.X,XXX.X	
SAVE CLR BACK <near data="" save="" ▷=""></near>	EXIT



### 4.2 Dome Setting

		WAIN WENU	
MOTION	$\triangleright$		
DOME			
CAMERA	$\triangleright$		
CLEAR	$\triangleright$		
PTZ RESET			
1 10 10001			
DACK		EVIT	
Z NEAD / DI	сит	DDESET \	

Pan, Tilt, Zoom motion is adjustable in the "Dome Setting" Menu.

4. 2. 1 Set the Dome camera title	
Move : Select : TELE or Or Delete :	UNIDE OF OSTICK
	TITLE SET
TITLE         VIDEO FORMAT         POWER UP ACTION : ON         PARK ACTION         DISPLAY ON/OFF         DOME SUB MENU         TEMP SET	LABEL : 0 1 2 3 45 6 7 89 ( ) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z $_{-}$ / $_{+}$ = $< > \bigcirc$
IEMP. SEI     ▷       FACTORY SET     SAVE       SAVE     BACK       EXIT       < NEAR / RIGHT     ▷       TITLE SET >	<pre><store> TELE MOVE &gt; JOYSTICK &gt; <delete> WIDE BACK &gt; NEAR &gt;</delete></store></pre>

After the label is set, push NEAR button to exit.

#### 4.2.2 VIDEO FORMAT

- 1080p/30(25)fps / 720p/60(50)fps
- 1080p/30(25)fps / 1080p/60(50)fps / 720p/30(25)fps / 720p/60(50)fps

DOM	AE MENU
TITLE :	
VIDEO FORMAT	
POWER UP ACTION	: ON
PARK ACTION	$\triangleright$
DISPLAY ON/OFF	$\triangleright$
DOME SUB MENU	$\triangleright$
TEMP. SET	$\triangleright$
FACTORY SET	*
SAVE E	BACK EXIT
< NEAR / RIGHT 🖒	TITLE SET >

- \* Video format setting depends upon the models.
- \* Video format is not applied for analogue models.

#### 4.2.3 Set the Power Up Action

When this function is ON, the camera memorizes the latest action and restores, it from sudden power failure.



#### 4.2.4 PARK ACTION

This function enables to locate the camera to specific position automatically if operator doesn't operate the controller for a while.

$\wedge$		3	
	or		NEAR
JOYSTICK		Ø	

(1) Set the park time (OFF, TOSEC $\sim$ 1 hour	(1)	Set the	park	Time	(OFF,	10sec~1	hour
---	-----	---------	------	------	-------	---------	------

	PARK MENU	
TIME	: OFF	
FUNCTION	: NONE	
NUMBER	: XX	
BACK <near righ<="" td=""><td>Γ&amp; PARK TIME&gt;</td><td></td></near>	Γ& PARK TIME>	

(2) Select the function which will be back after the above set time.



	DOME MENU	
TITLE : VIDEO FORMA POWER UP AC	T FION · ON	
PARK ACTION		
DISPLAY ON/O DOME SUB ME TEMP. SET FACTORY SET	FF ▷ NU ▷ ▷	
SAVE < NEAR / RIGHT	BACK ▷ TITLE SET >	EXIT

#### (3) Select the appointed function's Number

(4) "BACK" means it goes back to the previous menu.

_	PARK MENU
TIME FUNCTION	: OFF : NONE
NUMBER	: XX
BACK < NEAR / RIGHT	▷ DWELL>

#### 4. 2. 5 Display ON/OFF Set

You can select the OSD ON to shown on the screen or clear by selecting OFF in this function.



#### 4. 2. 6 DOME SUB MENU

	DOME MENU	
TITLE VIDEO FORMAT POWER UP ACTI PARK ACTION DISPLAY ON/OF <b>DOME SUB MEN</b>	ON : ON F U	
TEMP SET FACTORY SET	$\triangleright$	
SAVE < NEAR / RIGHT	BACK ▷ TITLE SET >	EXIT

DOM	ME MENU
DATA BACK/LOAD	
EXTERNAL IR SET	$\triangleright$
WIPER SETTING	$\triangleright$
SPEED BY ZOOM	: ON
FLIP MODE	: AUTO
RESPONSE TXD	: ON
BACK < NEAR / RIGHT ▷	SUB MENU >

	DOME MENU
MOTION SAVE	E
CAM DATA SA	AVE
DOME DATA S	SAVE
ALL DATA SAV	VE
MOTION LOAI	D
CAM DATA LO	DAD
DOME DATA L	LOAD
ALL DATA LOA	AD
BACK	
< NEAR / RIGH	T ▷ DATA SAVE >

DOM	IE MENU
DATA BACK/LOAD	$\triangleright$
EXTERNAL IR SET	
WIPER SETTING	$\triangleright$
SPEED BY ZOOM	: ON
FLIP MODE	: AUTO
RESPONSE TXD	: ON
BACK $< NEAR / RIGHT > 1$	SUB MENU >
	SOD MILINO -

#### (1) DATA BACK/LOAD

Backup or load the Motion, Camera and PTZ Setting Data

Select : JOYSTICK OF MEAR

#### - DATA BACK/LOAD Sub Menu Tree

MOTION SAVE	: Save the current Motion Data
CAM DATA SAVE	: Save the current Camera Data
Dome data save	: Save the current PTZ Data
ALL DATA SAVE	: Save above all 3 Datas.
MOTION LOAD	: Apply the saved Motion Data
CAM DATA LOAD	: Apply the saved Camera Data
Dome data load	: Apply the saved PTZ Set Data
ALL DATA LOAD	: Apply the saved above all 3 Datas.

#### (2) EXTERNAL IR SET

Set the IR function.

DOME MENU		
IR SYNC MODE IR ILLUMINATE ICR CHG LUX IR CONT. TYPE IR OFFSET	: ALS SYNC : HIGHEST : 2 LUX : AUTO : 0	
BACK < NEAR / RIGHT ▷	SYNC SET>	

DOME MENU		
IR SYNC MODE	: ALS SYNC	
IR ILLUMINATE	: HIGHEST	
ICR CHG LUX	: 2 LUX	
IR CONT. TYPE	: AUTO	
IR OFFSET	: 0	
BACK	II I IIMINATE >	
< NEAK / KIOHI	ILLUIVIIINALE >	

DOME MENU		
IR SYNC MODE	: ALS SYNC HIGHEST	
ICR CHG LUX	: 2 LUX	
IR CONT. TYPE	: AUTO	
IR OFFSET	: 0	
DACK		
$<$ NEAR / RIGHT $>$ I(	CR LUX >	

DOME MENU		
IR SYNC MODE IR ILLUMINATE ICR CHG LUX	: ALS SYNC : HIGHEST : 2 LUX	
IR CONT. TYPE	: AUTO	
IR OFFSET	: 0	
BACK < NEAR / RIGHT ▷	IR CONT. TYPE>	

#### - IR SYNC MODE

ALS SYNC : Synchronized in visible light.

ALL ON : IR always on.

ALL OFF : IR always off.

ICR SYNC : Operate External IR connected Camera ICR **\*** Factory default is ALS SYNC .



#### - IR ILLUMINATE

HIGHEST : Output the Max.IR light HIGH : Output the hight level of IR light LOWEST : Out put the Min. IR light LOW : Output the low level of IR light \* Factory default is HIGHEST.



#### - ICR CHG LUX



#### - IR CONT. TYPE



32

DC	ME MENU
IR SYNC MODE IR ILLUMINATE ICR CHG LUX IR CONT. TYPE IR OFFSET	: ALS SYNC : HIGHEST : 2 LUX : AUTO : <b>0</b>
BACK < NEAR / RIGHT ▷	IR OFFSET>

DOME MENU

 $\triangleright$  $\triangleright$ 

: ON

: ON

< NEAR / RIGHT > SUB MENU >

: AUTO

DATA BACK/LOAD

EXTERNAL IR SET WIPER SETTING

SPEED BY ZOOM

FLIP MODE RESPONSE TXD

BACK

WIPER MODE

#### - IR OFFSET

Set the IR sensitivity.  $(-4 \sim 4)$ ℁ Factory default is 0



### (3) WIPER SETTING

Set the wiper function.

#### - WIPER INTERVAL MODE

Select ON/OFF/INTERVAL to use the wiper function. Wiper operates once at regular interval which is set in this menu.



#### - WIPER POS.

Set wiper position function. RIGHT / BOTTOM (Default : BOTTOM)













DOME MENU

: OFF

	DOME MENU	
WIPER MODE	: OFF	
WIPER POS.	: BOTTOM	
WIILK IIML	. //////	
DACW		
SACK SACK	▷ WIPER POS>	

	DOME MENU
WIPER MODE	: OFF
WIPER POS.	: BOTTOM
WIPER TIME	: XXXX
BACK	
< NEAR / RIGHT	` ▷ WIPER TIM,E>

DOME MENU	
DATA BACK/LOAD EXTERNAL IR SET WIPER SETTING	
SPEED BY ZOOM	: ON
FLIP MODE RESPONSE TXD	: AUTO : ON
BACK < NEAR / RIGHT >	FUNCTION>

DOM	AE MENU
DATA BACK/LOAD EXTERNAL IR SET WIPER SETTING SPEED BY ZOOM	⊳ ⊳ ∶ ON
FLIP MODE	: AUTO
RESPONSE TXD	: ON
BACK	
< NEAR / RIGHT >	FLIP MODE >

DOM	AE MENU
DATA BACK/LOAD EXTERNAL IR SET WIPER SETTING SPEED BY ZOOM	D D : ON
FLIP MODE	: AUIO : ON
BACK	
< NEAR / RIGHT >	RESPONSE TXD >

#### - WIPER INTERVAL TIME

1 MIN / 2 MIN / 4 MIN / 6 MIN / 8 MIN / 10 MIN When WIPER MODE is INTERVAL, WIPER TIME function is available.



#### (4) SPEED BY ZOOM

Pan and Tilt speed can be changed depending on zoom magnification.



#### (5) FLIP MODE

- OFF: TILT movement ranges from -8 (352) ~90°
- AUTO: When TILT move to 90°, PAN 180° automatically reversed moved
- $\mathsf{DIGITAL}$  : Reversed Image without Tilt Flip



#### (6) RESPONSE TXD

34

Tx communication line to transfer the unique value of protocal response.

(Use this function when the protocol is pelco-D 5.0)\* Factory default is OFF.



#### 4. 2. 7 TEMP. SET

	DOME MENU	
TITLE :		
VIDEO FORMAT		
POWER UP ACTION : ON		
PARK ACTION >		
DISPLAY ON/OFF		
DOME SUB MENU		
TEMP. SET		
FACTORY SET		
SAVE BACK	EXIT	

DOME MENU		
HEATER ON TEMP	: 15 C	
HEATER ON TIME HEATER OFF TEMP FAN ON TEMP FAN OFF TEMP	: 30 MIN : 20 C : 40 C : 30 C	
CURRENT TEMPER	► 50,40C	
BACK < NEAR / RIGHT ▷	ON TEMP >	

	DOME MENU
l	HEATER ON TEMP : 15 C
l	HEATER ON TIME : 30 MIN
l	HEATER OFF TEMP : 20 C
l	FAN ON TEMP : 40 C
l	FAN OFF TEMP : 30 C
	CURRENT TEMPER ► 50.40C
	BACK < NEAR / RIGHT ▷ ON TIME >

DOME M	ENU
HEATER ON TEMP HEATER ON TIME	: 15 C : 30 MIN
HEATER OFF TEMP	: 20 C
FAN ON TEMP FAN OFF TEMP	: 40 C : 30 C
CURRENT TEMPER	► 50.40C
BACK < NEAR / RIGHT ▷ C	OFF TEMP >

Setting inside of PTZ Current Temp: Check Temp of inside of PTZ. See the below in detail. Default is keep optimized temp

#### (1) HEATER ON TEMP

Set the operating temperature of the heater.  $(0 \sim 70 \degree C)$ 



#### (2) HEATER ON TIME

Set the operating time of the heater.

- By 10min. (10~60 min.)



#### (3) HEATER OFF TEMP

Set the temerature of heater OFF. (0 ~ 70  $^{\circ}$ C)



DOME N	IENU
HEATER ON TEMP HEATER ON TIME HEATER OFF TEMP	: 15 C : 30 MIN : 20 C
FAN ON TEMP FAN OFF TEMP	: <b>40 C</b> : 30 C
CURRENT TEMPER	► 50.40C
BACK < NEAR / RIGHT ▷	FAN ON >

DOME MENU	
HEATER ON TEMP HEATER ON TIME HEATER OFF TEMP FAN ON TEMP	: 15 C : 30 MIN : 20 C : 40 C
CURRENT TEMPER	► 50.40C
BACK < NEAR / RIGHT ⊳ F	SAN OFF >

### 4.2.8 FACTORY SET

DOME MENU	
TITLE : VIDEO FORMAT POWER UP ACTION : ON PARK ACTION ▷ DISPLAY ON/OFF ▷ DOME SUB MENU ▷ TEMP. SET ▶	
FACTORY SET	
SAVE BACK < NEAR / RIGHT ▷ FACTORY SET >	EXIT

#### (4) FAN ON TEMP

Set the operating temperature of the Fan. ( $0 \sim 70 ^{\circ}$ C)



#### (5) FAN OFF TEMP

Set the temperature of Fan OFF.  $(0 \sim 70 ^{\circ}C)$ 



Restore setting values to the factory default. All existing setting value will be erased.



### 4.3 Clear Setting

Clears the PTZ position and function value.

MAIN MENU	CLEAR MENU
MOTION ▷ DOME ▷ CAMERA ▷ CLEAR ▶	PRESET     YES     NO       TOUR     ▷       GROUP     ▷       SCAN     ▷
PTZ RESET EXIT < NEAR / RIGHT ▷ CLEAR >	PATTERN       ▷         AREA       ▷         ALARM       ▷         PRIVACY       ▷         ▷       PRESET CLEAR:         < SEL ▷       NEAR       LEFT /RIGHT>
Select : Or NEAR Set ON : Set ON :	Set OFF : NEAR

### 4.4 PTZ Reset

It is a reset function

	MAIN MENU	
MOTION		
DOME CAMERA CLEAR		
PTZ RESET		
EXIT < NEAR / RI	GHT ▷ RESET>	

### 4. 5 Other Quick Opercating Guide

ICR AUTO (ON) = 240 + F1 Long Preset ICR DAY (ON) = 241 + F1 Long Preset ICR NIGHT (ON) = 242 + F1 Long Preset WIPER INTERVAL (ON / OFF) = 243 + F1 Long Preset (10 minutes) WIPER (ON / OFF) = 244 + F1 Long Preset HEATER (ON / OFF) = 245 + F1 Long Preset IR ZOOM (AUTO / MANUAL) = 248 + F1 Long Preset LIGHT (ON / OFF) = 252 + F1 Long Preset INFO (ON / OFF) = 255 + F1 Long Preset

\* The keyboard shortcut of IR ZOOM (DOME SUB MENU -> 1) IR CONT. TYPE->MANUAL 2) ICR NIGHT->ON )

Select : TELE WIDE

## **5. SPECIFICATION**

#### 5.1 Mechanism Specification

#### 5.1.1 MECHANICAL

- : 360°Continuous Pan, 0.1° to 120°/sec (proportional to zoom)
- Pan Preset Speed  $: 250^{\circ}/\text{sec}, \pm 0.1^{\circ} \text{Accuracy}$
- Tilt

- Pan

- : -8°(352°) to 188° movement, 0.8° ~ 80°/sec (proportional to zoom) : 250°/sec, ± 0.05° Accuracy
- Tilt Preset Speed
- : 6.4 Kg(MECHANICAL) - Weight
- Dimensions Set  $: 231(\emptyset) \times 385(mm)$

#### 5.1.2 ENVIRONMENTAL

- Construction
- : Aluminum
- Ingress Protection
- : IP66 (Outdoor Housing) : Outdoor : -40°C to 60°C (-40° F to 140° F)/ with 30W Heater
- Operating Temp - Humidity
- : 0% to 90% (non-condensing)
- Fan operate
- : 50°C on , 40°C off - Heater operate : 5°C on , 15°C off

#### 5.1.3 FUNCTIONS

- Preset : 255 points, less than 0.1° accuracy
- : 8 programmable - Tour
- : 6 group(Max.6 Tours are programmable in each Group) - Group
- : 8 (programmable speed and diagonal scan) - Scan
- : 4 patterns for 60 second. - Pattern
- : 16 Area - Area
- Alarm : 8 alarm
- Privacy Zone : 8 block with title (Mask)
- ID Address : Up to 255 selectable ID (Rotary switch)
- Data Communication Control : RS-485 / RS-422
- : Multiple protocol (PELCO D/P, WTX) - Protocol
- : 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps selectable - Baud rate

#### 5.1.4 ELECTRICAL

- Power : AC21~26V 60Hz / 50Hz(Power adaptor not included)
- Consumption : Operation(5A) / MAX 6A
- : 10 W / 45 W - Fan & Heater

#### 5.1.5 USER CONNECTIONS

- Data communication connection : RS-422, 485 + / Optional Control Data
- HD-SDI connection : BNC
- Alarm Inputs : 8 Programmable
- : 2 Dry Contact Output Rating: 2A @30VAC - Relay

38

## 6. DIMENSION

## 6.1 DIMENSION













## 7. CONFIGURATION

## 7.1 Connecting to Keyboard with DVR



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