

Installation and Operation Manual for High Speed Dome Camera

VER: V1.0

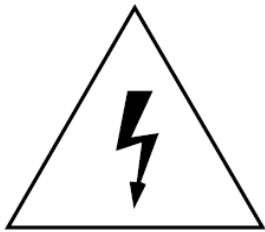


15-CD66WIB



15-CD66WB

Please read the operation manual carefully
before installing and using this unit



CAUTION

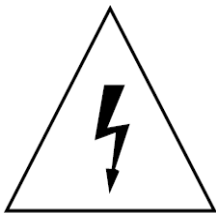
RISK OF ELECTRIC
SHOCK DO NOT OPEN



CAUTION: To reduce the risk of electrical shock, do not open covers.

No user serviceable parts inside.

Refer servicing to qualified service personal.



This lightning flash with arrowhead symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To prevent the risk of fire or electric shock hazard do not expose this camera to rain or moisture.

|| Important Safeguard

1. Read Instructions
Read all of the safety and operating instructions before using the product.
2. Retain Instructions
Save these instructions for future reference.
3. Attachments / Accessories
Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.
4. Water and Moisture
Do not use this product near water or moisture.
5. Installation
Do not place or mount this product in or on an unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a mounting device recommended by the manufacturer, or sold with the product. To insure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.
6. Power source
This product should be operated only from the type of power source indicated on the marking label.

|| Precautions

Operating

- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your local dealer.

Handling

- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Care must be taken when you clean the clear dome cover. Especially, scratch and dust will ruin your quality of camera.

Installation and Storage

- Do not install the camera in areas of extreme temperature, which exceed the allowable range.
- Avoid installing in humid or dusty places.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never expose the camera to rain and water.

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Features

Camera Specifications

- CCD Sensor: 1 / 4 " Interline Transfer CCD
- Camera Support: CZ36SCM(COP)
Zoom Magnification: x 36 Optical Zoom, x 32 Digital Zoom
- Camera Support: FCB-EX1020(SONY)
Zoom Magnification: x 36 Optical Zoom, x 12 Digital Zoom
- Camera Support: SCM-2270/SCM-2273(SAMSUNG)
Zoom Magnification: x 27 Optical Zoom, x 16 Digital Zoom
- Camera Support: SCM-2370/SCM-2373(SAMSUNG)
Zoom Magnification: x 37 Optical Zoom, x 16 Digital Zoom
- Day & Night Function
- Various Focus Mode: Auto-Focus / Manual Focus / Semi-Auto Focus.
- Independent and Simultaneous Camera Characteristic Setup in Preset operation

Main Features

- Step less speed changes, auto zoom/speed matching
- Pan 0.01~360°/S, Tilt 0.01°~120°/S
- Timing actions for 7 days of programmable schedule
- Built-in Semi-conductor heater & digital temperature sensor
- Pan Tilt accuracy +/- 0.01°, 255 preset positions
- Multi-Protocol through RS485 or coaxial cable.
- Max- 8 set of Group action can be stored. This enables to move camera repetitively with combination of Preset. A Group is composed of max. 16 entities of Preset.
- Max .4 of Patterns can be recorded and played back. This enables to move camera to follow any trajectory operated by joystick as closely as possible.
- Max. 8 set of Swing action can be stored. This enables to move camera repetitively between two preset positions with designated speed.
- Max. 1 set of auto scan can be stored. This is to keep the ball machine according to the elevation angle of executive level 360° continuous rotation and speed can be adjusted.
- 8 Privacy Zones with defined English camera title
- Auto Compatible PELCO_P, PELCO_D compatible
- Guard Location: the dome will rotate back to preset position after a period of vacant time
- Alarm triggering: the alarm can trigger preset, auto scan, group and pattern tours functions
- Soft Address Function: the use can set up the dome address without uninstall the dome
- Specially defrost function to get clear image when the camera is working on the low temperature environment.

Integrated Super Speed PTZ Rotator..

- Delicate stepping motor, stable, sensitive and accurate
- 360° Pan and -10°~90° Tilt range (auto-flip) without blind area
- Stepless speed change, auto zoom/speed matching
- Near / far IR Light auto matches camera zoom in/out

All-weather Outdoor Design

- High die-cast alloy aluminum construction
- High Precision Mould with high heat conductivity
- Fully enclosed isolation design for heat sink
- Nanometer Dustproof, waterproof and fog-proof lens
- IP66 Waterproof
- 3000V lightning and surge current protection

Function Instructions

- Focus / PTZ Speed Auto Match

The pan/tilt rotation speed could be automatically adjusted according to the focus in/out, which makes it much more practical for manual target tracking.

- Power Up Action

This function enables to resume the last action executed before power down. Most of actions such as Preset, Pattern, Swing ,Auto scan and Group are available for this function but jog actions are not available to resume.

- Auto Flip

When the camera tilts downward and goes just beyond the vertical position, the camera will rotate 180 degrees.

- Preset Position Set up and Call Up

In the Preset function the dome stores the current pan/tilt angle, zoom and other position parameters in its memory. When necessary the dome recalls these parameters and adjusts the camera to a particular position. The user can store, recall and clear the presets easily and promptly by using the keyboard controller. The dome can store up to 255 presets.

- Swing

Users can set up the left and right boundaries by control keyboard. Then speed dome can scan between this boundary. It supports up to 8 groups of scanning paths.

- **Group**
The preset position can be programmed to be recalled in a set of sequences. This sequence can be set to let the camera scan from one position to the next in a cycle at a set speed. This feature is called the “auto cruise”. The cruise sequence and dwell time of each preset can be set. It supports up to 8 cruising tracks, each cruising track with 16 presets.
- **Pattern Tour**
Dome can memorize 160s running path or 500 programmable instructions. When start pattern tour, speed dome will move automatically according recorded action path. It supports 4 groups of pattern tours.
- **Guard Location**
The dome will automatically return to preset position if there is no operation in a period of vacant time.
- **Default Action**
When you start up the dome camera or do not send commands over a long time, the dome camera will return to its default functions which include the home place, auto pan, auto cruise and pattern.
- **Dome Address Setup**
The dome supports up to 255 addresses and the dome will only response to the instructions given to its own address. Please check the ball machine code dialing switch address setting.
- **Manual Object Tracking**
The use can move the joystick up, down, left or right to track the appearing object in the screen and use the joystick to zoom in and out with auto focus.
- **Privacy Mask Protection**
Set black mask areas to protect the privacy zones. The black privacy locations can be set, and support up to 8 mask zones.
- **Timing Running Function**
Users can set speed dome operation task at total 6 timing areas during 7 days.
- **Coordinates and Directions Display**
User can define the dome’s direction of due north, which will help to show up the exact moving directions on screen. And zone title is supported to display when the dome moves to the specified zone.

- PTZ and Lens Control

- ① Zoom Control

- Users can control zoom by keyboard to get near or far images.

- ② Focus Control

- The default setting is auto focus. The camera will auto focus based on the center of the video display to get the clear image. In some special occasions, the user could do the manual focus to get the desired image effect.

- ③ Auto Iris Control

- Auto Iris is aiming to detect the environmental lights condition and adjust the iris to get the stabilized brightness of the image.

- ④ Auto Back Light Compensation

- In the highly bright background, auto back light compensation is aiming to compensate the brightness of the dark object and adjust the background brightness to get a clear image.

- ⑤ Auto/Manual White Balance

- Auto/Manual WB adjust depending on the environment light changes.

- ⑥ Day and Night Switch (Only for Day/Nigh Camera)

- Speed dome camera can auto switch according to the environmental illumination changes.

- I/O Functions

To reject external electric noise and shock perfectly, alarm sensor Input is decoupled with photo coupler.

Using the dry contact for alarm input and output.

If an external sensor is activated, camera can be set to move to the corresponding Preset position.

- Reserved Presets for Special Purpose

Most camera characteristics can be set up easily and directly with reserved preset, not entering into OSD menu. For more information, refer to "Reserved Preset" in this manual.

Product & Accessories



15-CD66WIB



15-CD66WB

- **Accessories:**



User's Manual



Anti-drop Rope & Screw



**Caution: AC24V/3A power for 15-CD66WIB
AC24V/2A power for 15-CD66WB**

■ ■ Installation Guide ■ ■

■ ■ Preparations

- **Basic Requirements**

All the electric work must be finished under the latest electric & fire prevention law and rules (and any related law and rules). Please check according to the packing list if every accessory is included. And also make sure the installation is operated as required. Please contact us for any help during the installation.

- **Installation Space and Density Checkup**

Please make sure the space is big enough to install our dome. And also ensure the density of the ceilings or walls to hold total weight of the dome and its accessories.

- **Cables Preparation**

Please choose the proper cable according to the transmission distance. The min requirement of coaxial BNC cable is listed as follows for reference:

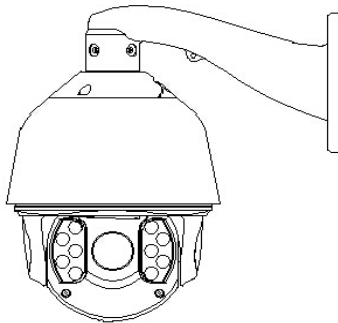
Models	Max Distance (Feet\Meter)
RG59/U	750ft(229m)
RG61/U	1,000ft(305m)
RG11/U	1,500ft(457m)

- **Setup Dip Switch for Dome Address**

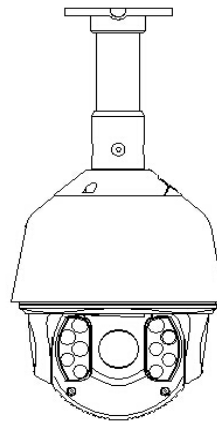
*Please turn to Dome Address Setup for details

Installation Method

The high speed dome could be installed in wall-mount and pendant mount.



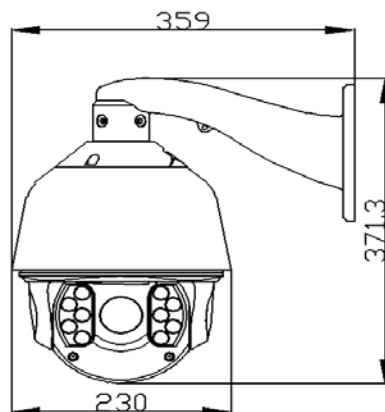
Wall-Mount



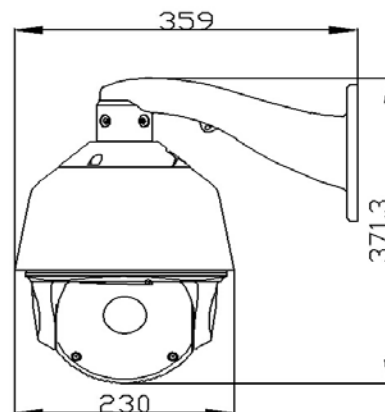
Pendant Mount

Installation Dimensions

Wall Mount

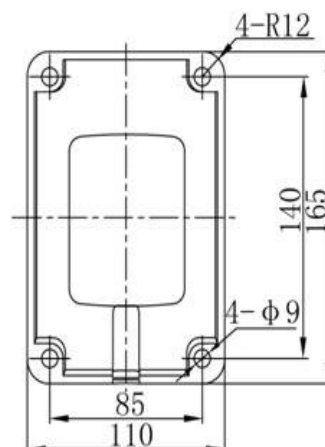


15-CD66WIB

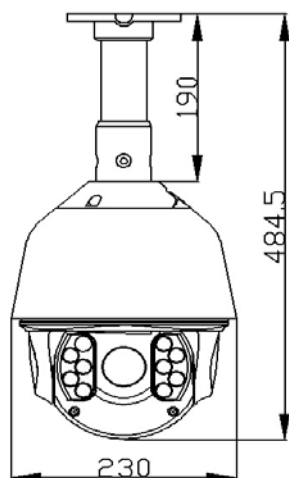


15-CD66WB

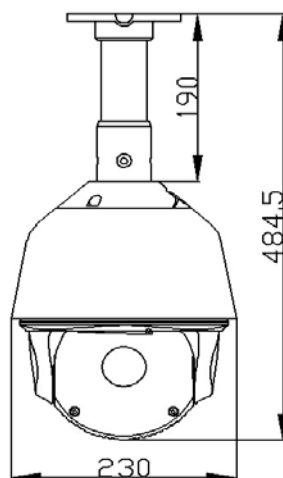
Drill Drawing:



Pendant Mount

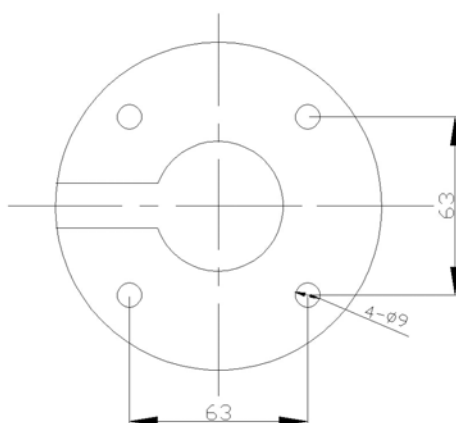


15-CD66WIB



15-CD66WB

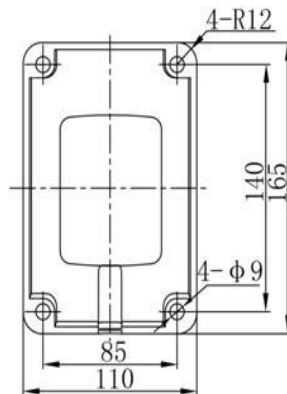
Drill Drawing:



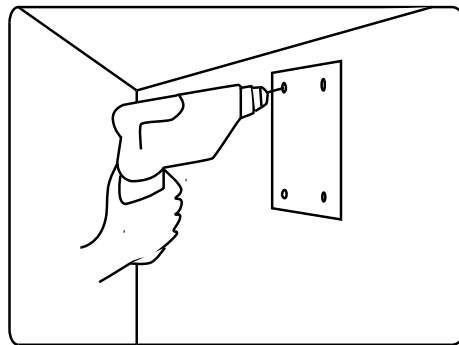
***Notice:** The wall and ceiling must be thick enough to install the expansion and can bear 4 times the weight of the dome camera itself.

- **Wall-mount Installation Procedures:**

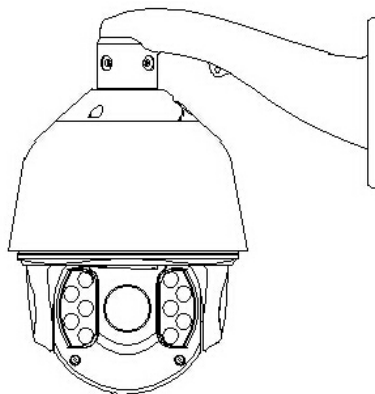
- 1). Take out the bracket from the package (as shown), mark the installation hole positions on the wall referencing to the bottom of bracket.



- 2). Drill the hole and install 4 pieces of M8 expansion bolt into the hole.



- 3) Take out the high speed dome and put the cables through the bracket.
Use M8 screws to fix the bracket and dome body.

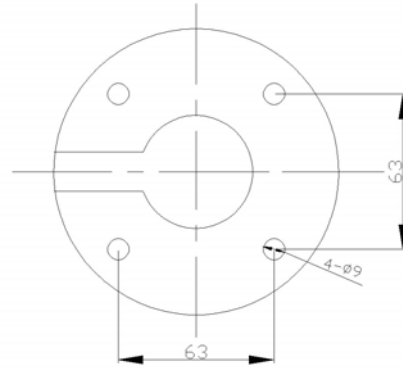


- 4) Use 4 pieces of M8 screw nuts with washer to fix the bracket on the wall.

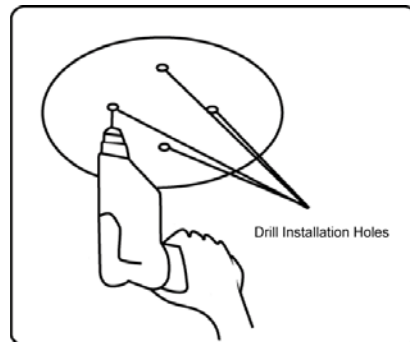
- **Pendant-mount Installation Procedures:**

***Notice:** Pendant-bracket is not designed for outdoor installation. If specially required, please do make sure the waterproof installation of the dome.

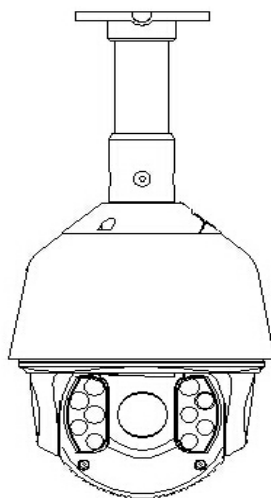
- 1) Take out the bracket from the package (as shown), mark the installation hole positions on the ceiling referencing to the bottom of bracket.



- 2) Drill the hole and install 4 pieces of M8 expansion bolt into the hole.



- 3) Take out the high speed dome and put the cables through the sockets on the bottom of the pendant bracket. Use M8 screws to fix the bracket and dome body.



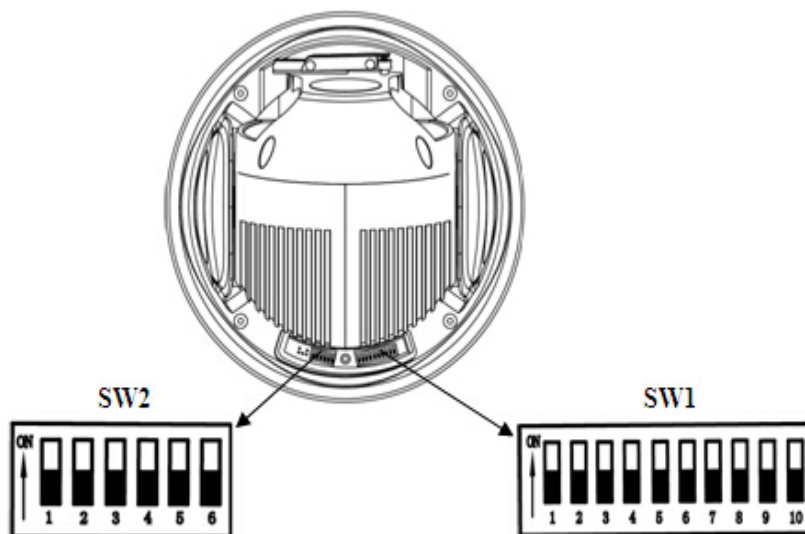
- 4) Use screw nuts with washer to fix the bracket on the wall.

|| Dome Setting ||

Before the dome is installed, please finish the setup of the baud rate and dome address. Set the DIP switch inside the dome body. The relative DIP switch site and connecting wires are diagramed below for reference.

|| DIP Switch Setup

The dip switches are under the cover as following picture.



SW1 — Dip switch for the dome address

SW2 — Dip switch for the dome protocol

● Baud Rate Setup (SW2)

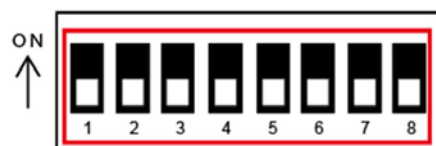
Set the No.5~6 dip switch for the baud rate configuration.

Baud Rate	SW2-5	SW2-6
9600	ON	ON
4800	OFF	ON
2400	ON	OFF
Reserved	...	...

1. If you want to control using DVR or P/T controller, their protocol must be identical to camera. Otherwise, you can not control the camera.
2. If you changed camera protocol by changing DIP S/W, the change will be effective after you reboot the camera.

- **Dome Address Setup (SW1)**

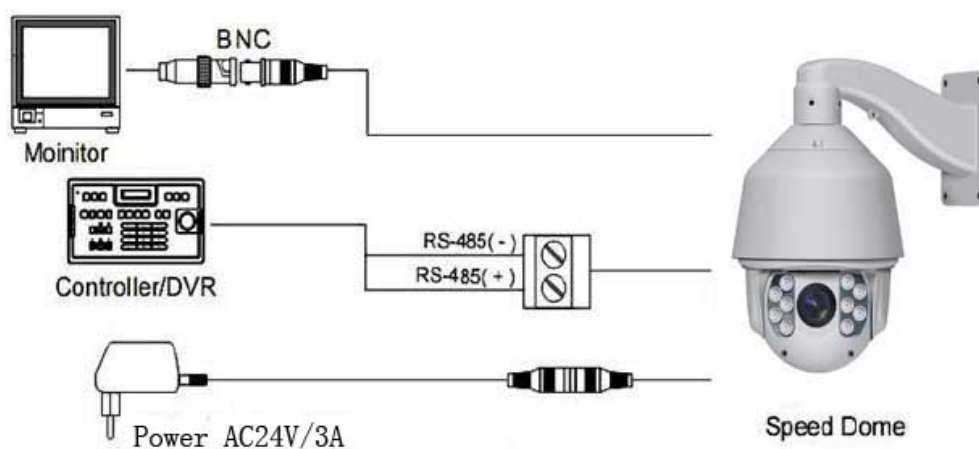
1. ID number of camera is set using binary number. The example is shown bellow.



PIN	1	2	3	4	5	6	7	8
ID Value	1	2	4	8	16	32	64	128
Ex) ID=5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
Ex) ID=10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF

2. The range of ID is 1~255. Factory default of Camera ID is 1.
3. If you want to control a certain camera, you must match the camera ID with Cam ID setting of DVR or Controller.
4. Speed dome can change the ID address and baud rate via OSD menu.

|| Cabling



Cabling Terminal Block

- **Power Connection**

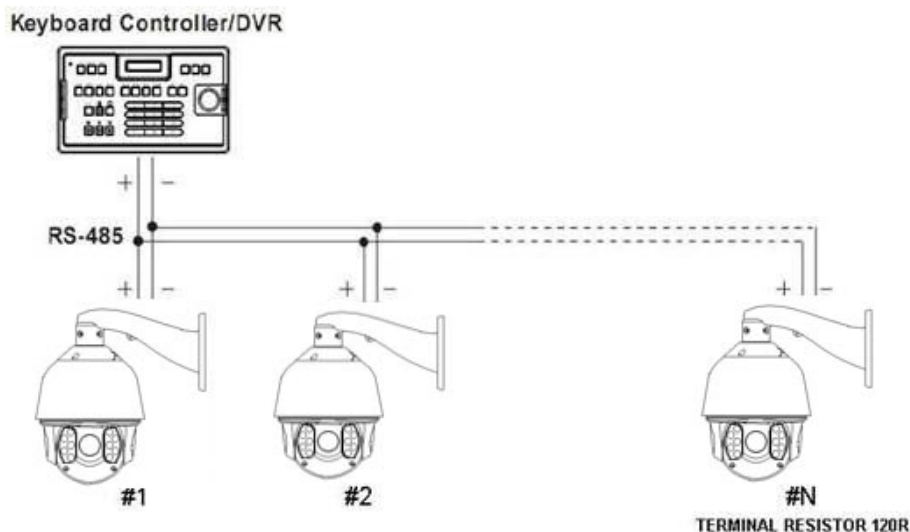
Please check the voltage and current capacity of rated power carefully.

Rated power is indicated in the back of main unit.

Rated Power	Input Voltage Range	Current Consumption	Model
AC24V	AC24V $\pm$ 2V	3A	15-CD66WIB
AC24V	AC24V $\pm$ 2V	2A	15-CD66WB

- **RS-485 Communication**

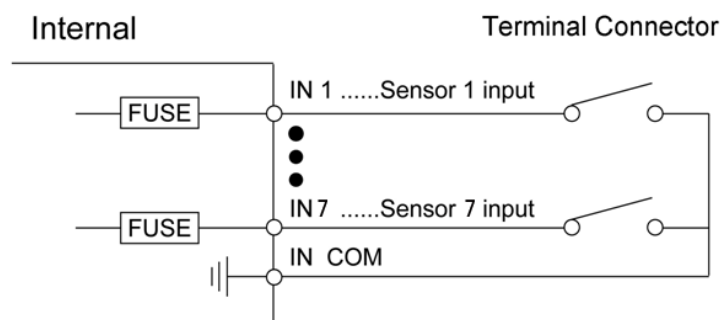
1. For PTZ control, connect this line to keyboard and DVR. To control multiple cameras at the same time, RS-485 communication lines of them is connected in parallel as shown below.
2. Speed Dome OSD Menu, support the distal 120R resistance of the opening and closing.



- **Video Connection**

Connect with BNC coaxial cable.

- **Alarm input**



Signal	Description
IN COM	Common point for alarm
IN1-,IN2-,IN3-, IN4-,IN5,IN6,IN7	Alarm input signal

After open the alarm function, Speed dome can detect the status of alarm automatically.

- **Alarm output**

Speed dome can detect the status of alarm input automatically, when any alarm was triggered then alarm output must be action.

■ ■ Check points before operation

- Before power is applied, please check the cables carefully.
- The camera ID of the controller must be identical to that of the target camera. The camera ID can be checked by reading DIP switch of the camera.
- If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
- If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
- Since the operation method can be different for each controller available, refer to the manual for your controller if camera can not be controlled properly. The operation of this manual is based on the standard Pelco® Controller.

■ ■ Preset and pattern Function Pre-Check

- Check how to operate preset and pattern function with controller or DVR in advance to operate camera function fully when using controller or DVR.
- Refer to the following table when using standard Pelco® R protocol controller.

<Go Preset>	Press [Call] input [Preset number] and press [Enter]
<Set Preset>	Press [Preset] input [Preset number] and press [Enter]
<Run Pattern>	Press [Call] input [Pattern number] and press [Enter]
<Set Pattern>	Please refer to the pattern setup, turn to "Pattern Setup"

- If controller or DVR has no pattern button or function, use shortcut keys with preset numbers. For more information, refer to "Reserved Preset" in this manual.

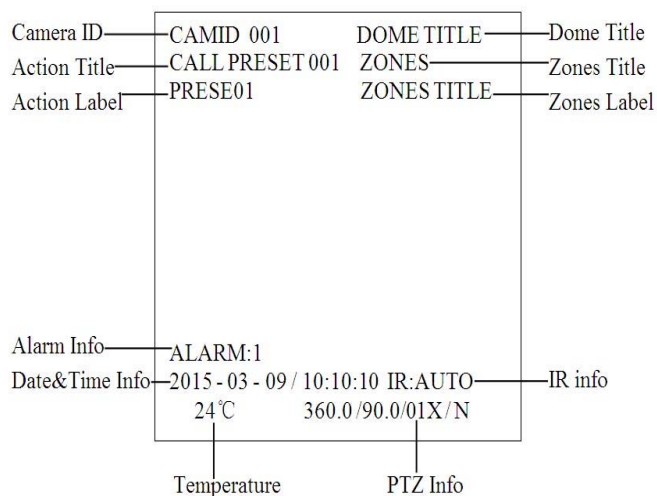
|| Starting OSD Menu

- Function Using the OSD menu, Preset, Pattern, Swing, Group and Alarm Input function can be configured for each application.
- Enter Menu Press <Call> + Preset Number [95] +<Enter>

|| Reserved Preset

- Description Some Preset numbers are reserved to special functions.
- Function
 - <Call> [95]<Enter> : Enters into OSD menu
 - <Call> [51]<Enter> : Start the windshield wiper
 - <Call> [52]<Enter> : Open the defrosting function
 - <Preset> [52]<Enter> : Close the defrosting function
 - <Call>[131~134]<Enter> : Runs Pattern Function 1~4
 - <Call>[141~148]<Enter> : Runs Swing Function 1~8
 - <Call>[151~158]<Enter> : Runs Group Function 1~8
 - <Call>[160]<Enter> : Sets Alarm ON
 - <Call>[161]<Enter> : Sets Alarm OFF
 - <Call>[170]<Enter> : Sets Camera BLC Mode to OFF
 - <Call>[171]<Enter> : Sets Camera BLC Mode to ON
 - <Call>[174]<Enter> : Sets Camera Focus Mode to AUTO
 - <Call>[175]<Enter> : Sets Camera Focus Mode to Manual
 - <Call>[176]<Enter> : Sets Camera Focus Mode to SEMI-AUTO
 - <Call>[177]<Enter> : Sets Day & Night Mode to AUTO
 - <Call>[178]<Enter> : Sets Day & Night Mode to NIGHT
 - <Call>[179]<Enter> : Sets Day & Night Mode to DAY
 - <Call>[190]<Enter> : Sets OSD Display Mode to AUTO
(Except Privacy Mask)
 - <Call>[191]<Enter> : Sets OSD Display Mode to OFF (Except Privacy Mask)
 - <Call>[192]<Enter> : Sets OSD Display Mode to ON (Except Privacy Mask)
 - <Call>[193]<Enter> : Sets all Privacy Mask Display to OFF
 - <Call>[194]<Enter> : Sets all Privacy Mask Display to ON

|| OSD Display of Main Screen



- P/T/Z Information Current Pan/Tilt angle in degree and a compass direction.
- Camera ID Current Camera ID (Address).
- Dome Title Current speed dome title.
- Action Title Following are possible Action-Titles and their meaning.

"SET PRESET xxx"	When Preset xxx is stored
"CALL PRESET xxx"	When camera reach to Preset xxx
"RUN PATTERN x"	When Pattern x is in action
"RUN SWG x / GROUP xxx"	When Swing is in action
"xxxxxx ERR xxx"	When undefined function is called to run
- Action Label The Label stored for specific Preset and Pattern and Group.
- Alarm Input This information shows current state of Alarm Input.
- Date&Time info Current speed dome time and date.
- Temperature Show current speed dome internal temperature.
- IR info Current speed dome IR mode.
- Zones Title Show the current level of speed dome area location.
- Zones Label Show the current zones label.

General Rules of Key Operation for Menu

- The menu items surrounded with <> always has its sub menu.
- For all menu level, to go into sub menu, use joystick to the right.
- To return last level of menu by pressing BACK key.
- To move from items to item in the menu, use joystick in the Up/Down.
- To change a value of an item, use Left/Right of the joystick in the controller.
- Moving the joystick via left / right to modify the parameter of the camera then saving automatically. Some of functions have to save the parameter by pressing OPNE key.

Main Menu

SPEED DOME CAMERA
<SYSTEM INFORMATION>
<DISPLAY SETUP>
<IR SETUP>
<DOME SETUP>
<CAMERA SETUP>
<MOTION SETUP>
<ALARM SETUP>
<SYSTEM INITIALIZE>
EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

- | | |
|----------------------|--|
| ● System Information | Displays system information configuration and date time setup. |
| ● Display Setup | Enable/Disable of OSD display on Main Screen. |
| ● I R Setup | Enter into IR Setup menu. |
| ● Dome Setup | Enter into Dome Setup menu. |
| ● Camera Setup | Enter into Camera Setup menu. |
| ● Motion Setup | Enter into Motion Setup menu. |
| ● Alarm Setup | Configure alarm action. |
| ● System Initialize | Initializes system configuration and sets all data to factory default configuration. |

System Information

```
<SYSTEM INFORMATION>
FIRMWARE VER   : 2.22
COLOR SYSTEM   : PAL
SN CODE        : 152859
PROTOCOL       : PELCOD
ADDRESS        : 001
BAUD RATE      : 2400
120 RES        : OFF
<DATE/TIME SETUP>
BACK
EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER
```

The user can check the dome system information as required.

The system information includes: firmware version, color system, Series code, protocol, 120ohm end resistor setup, Date/Time setup.

Date Time Setup

```
<DATE/TIME SETUP>

DATE: 2015-03-06
TIME : 08:00:00
DAY : FRI
BACK
EXIT
OPEN SAVE
CLOSE EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER
```

Date Time Setup

<SYSTEM INFORMATION>→<DATE/TIME SETUP>

The dome can display the data and time. And the user could enter this CLOCK menu to set up the DATE and TIME.

- Date:2015-03-06

Move the cursor to "Date", move the joystick up or down to select the desired position about the date, and then move the joystick left or right to select corresponding date.

- Time:08:00:00

Move the cursor to "Time", move the joystick up or down to select the desired position about the time and then move the joystick left or right to select corresponding time.

- Day: [MON/TUE/WED/THU/FRI/SAT/SUN]

Move the cursor to "Day", move the joystick to select corresponding day.

Display Setup

<DISPLAY SETUP>

CAMERA ID ON
IR INFO OFF
DATE/TIME OFF
PTZ INFO AUTO
MOTION AUTO
ACTION TITLE AUTO
ALARM INPUT AUTO
TEMPERATURE AUTO
BACK
EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

This menu defines Enable/Disable of OSD display on Main Screen.

If an item is set to be AUTO, the item is displayed only when the value of it is changed.

- Camera ID [ON/OFF]
- IR Information [ON/OFF]
- Date / Time [ON/OFF]
- PTZ Information [ON/OFF/AUTO]
- Motion [ON/OFF/AUTO]
- Action Title [ON/OFF/AUTO]
- Alarm input [ON/OFF/AUTO]
- Temperature [ON/OFF/AUTO]

IR Setup

```
<IR SETUP>
IR MODE          AUTO
OUTPUT POWER     09
TESTING TIME     05S
ILLUMINATION ON  06L
IR SWITCH ZOOM   05X
AMBIENT LIGHT    07L
<IR TIMING SETUP>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

The user can open and close the IR LED manually and set up the IR LED work mode under this OSD menu. Control the joystick left or right to set the IR mode.

- IR Mode [AUTO/TIME/CAM/NEAR/FAR/ON/OFF]

To select the IR LED mode such as
AUTO/TIME/CAM/NEAR/FAR/ON/OFF.

1. AUTO : Infrared light is automatically turned on or off according to the brightness of the light.
2. Time : Infrared light setting to open according to the time.
3. Camera : Infrared light turned on or off which is synchronized with the camera and transferred from day and night mode.
4. NEAR: Forced IR light to the near beam mode.
5. FAR: Forced IR light to the far beam mode.
6. ON: Infrared light mode forced open.
7. OFF: Infrared light mode forced close.

- Output Power [00~09]

To select the output power of infrared.

- Testing Time [01S~08S]

To select the testing time of infrared when started.

- Illumination on [01L~09L]

To select the starting illumination of infrared when it was
AUTO mode.

- IR Switch Zoom [01X~18X]

To select the times of zoom from the high beam to low
beam each other.

- Ambient light [06L]

To test the light of environment automatically.

■ IR timing Setup

```
<IR TIMING SETUP>
START TIME    18:00
STOP  TIME    08:00
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<IR SETUP>→<IR TIMING SETUP>

To set the start time and stop time when the infrared was set
TIME mode.

- Start Time: 18: 00
- Stop Time: 08: 00

■ Dome Setup

```
<DOME SETUP>
<WIPER SETUP>
<SOFT LIMIT>
<PWR UP ACTION>
<PRIVACY ZONE>
<PARKING ACTION SETUP>
<SET NORTH DIRECTION>
<TILT ANGLE>
<ADVANCED>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

Some of function can be set form user such as wiper, soft limit,
power-up action, privacy zone, parking action, north direction
and the tilt angle adjustment.

■ Wiper Setup

```
<WIPER SETUP>
WIPER   :    SINGLE
NUMBER  :     01
RESET
RUN WIPER
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<WIPER SETUP>

Enter into Wiper Setup menu

- Wiper [SINGLE/CONTINUE]
To select the wiper working on single or continue mode.
- Number [1~10]
To select the number of continuing wipe when it was set
CONTINUE mode.
- Reset Reset Wiper
- Run wiper Run the windshield wiper

■ Soft Limit

```
<SOFT LIMIT>
SOFT LIMIT      OFF
<LEFT LIMIT>
<RIGHT LIMIT>
LIMIT DELETE    CANCEL
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<SOFT LIMIT>

The user can set up the soft limit to define the left and right boundaries for the pan movement.

- Soft Limit [ON/OFF]

To set soft limit function on/ off.

- Left Limit

To set left limit of the soft limit function.

- Right Limit

To set right limit of the soft limit function.

- Limit Delete [OK/CANCEL]

To delete soft limit.

■ Power Up Action

```
<PWR UP ACTION>
PWR UP ACTION    NOTHING
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<PWR UP ACTION>

The user can define the dome action when power on,

- PWR UP ACTION [NOTHING]

To select activities when power up. Including NOTHING/A
SCAN/SWING1-8/GROUP1-8/PATTER1-4/PRESET1-8. .

■ Privacy Zone

```
<PRIVACY ZONE>
MASK NO.      01
STATE         UNDEFINED /
DISPLAY       OFF
CLEAR MASK    CANCEL
<EDIT MASK>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOMESTOP>→<PRIVACY ZONE>

Privacy mask allows the user to mask the privacy areas with black frame. The user can set up 8 privacy masks at most.

- Mask No. [1~8]

Select Mask number. If the selected mask has already data, camera moves as it was set. Otherwise, "UNDEFINED" will be displayed under "Mask No".

- Display [ON/OFF]

Sets if camera makes mask shows or not on images

- Clear Mask [OK/CANCEL]

Deletes data in the selected mask NO.

- **Edit Mask**

```
<EDIT MASK>
```



UP DOWN LEFT RIGHT MOVE
TELE WIDE CHANGE WIDTH
FAR NEAR CHANGE HIGH
OPEN ENTER / CLOSE EXIT

- **Edit Mask**

<DOMESTOP>→<PRIVACY ZONE>→<EDIT MASK>

- Move camera to area to mask. Then the menu to adjust mask size will be displayed.

- Adjust mask size. Use joystick or arrow buttons to adjust mask size.

- ◀ ▶ (TILT/WIDE) Adjusts mask width.

- ▲ ▼ (FAR/NEAR) Adjusts mask height.

- pressing the OPEN key to save editing and CLOSE key will withdraw from editing.

■ Parking Action Setup

<PARKING ACTION SETUP>
PARK ACTION NOTHING
WAIT TIME 005S
BACK
EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<PARKING ACTION SETUP>

Parking action setup means if there is no command for the dome for a period of time, the dome will run the actions as defined.

- Parking Action [NOTHING]

To select parking action on/off . including NOTHING/AUTO
SCAN/SWING1-8/GROUP1-8/PATTER1-4/PRESET1-8.

- Wait Time [005S~240S]

To select the waiting time for parking action function.

■ Set North Direction Setup

<SET NORTH DIRECTION>

PTZ TO SELECT
OPEN ENTER, CLOSE EXIT

360.0 / -10.0 / 01X / N

■ Set North Direction

<DOME SETUP>→<SET NORTH DIRECTION>

Set North to assign compass direction as criteria. Move camera and press OPEN button to save.

■ Tilt Angle Setup

<TILT ANGLE>
TILT ANGLE -10
BACK
EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

■ Tilt Angle

<DOME SETUP>→<TILT ANGLE>

Set dome tilt angle.

- Tilt angle : -10°~0°.

Move joystick left and right to select tilt angle.

■ADVANCED

```
<ADVANCED>
MOTION LOCK      OFF
FRZ IN PRESET    OFF
AUTO FLIP        ON
JOG DIRECTION    NORMAL
DOME MAX SPEED   360
<DOME TITLE>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

● Dome Title

```
<DOME TITLE>
TITLE: ?????????
DOME TITLE OFF
BACK
EXIT
```

OPEN SAVE
CLOSE EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<ADVANCED>

● Motion Lock [ON/OFF]

To set the motion lock on/off. If the function was turned on all of the scanning will be locked user can not delete such as preset, swing, pattern and group.

● Freeze in Preset [ON/OFF]

At start point of preset movement, camera starts freezing the image of start point. Camera keeps displaying the image of start point during preset movement and does not display the images which camera gets during preset movement. As soon as camera stops at preset end point, camera starts displaying live images which it gets at preset end point. This function availability should be different by models.

● Auto Flip [ON/OFF]

When the camera tilts downward and goes just beyond the vertical position, the camera will rotate 180 degrees.

● Jog Direction [INVERSE/NORMAL]

If you set this to 'Inverse', the view in the screen is moving same direction with jog tilting. If 'Normal' is selected, the view in the screen is moving reversely.

● Dome Max Speed [10~360]

Sets maximum jog speed. Jog speed is inversely proportional to zoom magnification. As zoom magnification goes up, pan/tilt speed goes down

● Dome Title

<DOME SETUP>→<ADVANCED>→<DOME TITLE>

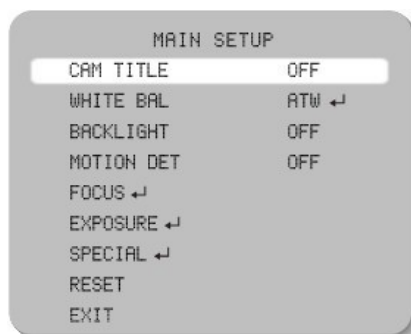
Edits Label to show on monitor when preset runs MAX. 10 alphabets are allowed. Enter edit label, "?" cursor will be displayed on the screen, using left/right of joystick to select character, and using up/down to move cursor, After inputting, press "OPEN" key to save and exit the setting.

Camera Setup

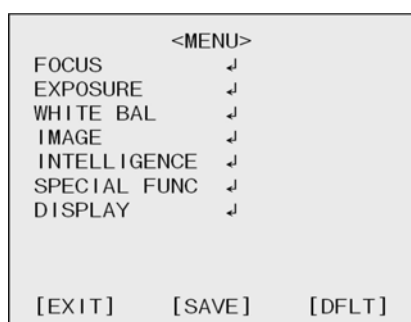
```
<CAMERA SETUP>
FOCUS MODE      SEMIAUTO
IRIS  MODE      SEMIAUTO
MIRROR          OFF
FREEZE          OFF
DIGITAL ZOOM    OFF
DAY/NIGHT       AUTO
<WHITE BALANCE SETUP>
<AUTO EXPOSURE SETUP>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

Note: the above camera menu supports only SONY FCB-EX1020.



Note: SCM-2270 & SCM-2370 camera set using the embedded module itself menu settings.



Note: CZ36SCM camera set using the embedded module itself menu settings

The user can make adjustment for the cameras under this menu.

- Focus Mode [AUTO/MANUAL/SEMIAUTO]

Sets camera focus mode.

- **SEMIAUTO Mode**

This mode exchanges focus mode automatically between Manual Focus mode and Auto Focus mode Manual Focus mode activates in preset operation and Auto Focus mode activates when jog operation Starts. With Manual mode at presets, Focus data is memorized in each preset in advance and camera calls focus data in correspondence with presets as soon as camera arrives at a preset

- IRIS Mode [AUTO/MANUAL/SEMIAUTO]

Sets camera IRIS mode.

- Mirror [V/H/HV/OFF]

To select the image reverse including vertical, horizontal or both.

- Freeze [ON/OFF]

If turn on this function, the screen image will be frozen until it is turned off.

- Digital Zoom [ON/OFF]

Sets digital zoom function to ON/OFF. If this is set to OFF, optical zoom function runs but zoom function stops at the end of optical zoom magnification.

- Day/Night [AUTO/DAY/NIGHT]

Sets camera day or night mode.

■ White Balance Setup

```
<WHITE BALANCE SETUP>
WB  MODE      AUTO
RED  ADJUST    200
BLUE ADJUST    200
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<CAMERA SETUP>→<WHITE BALANCE SETUP>

- WB Mode [AUTO/MANUAL]

In Manual mode, Red and Blue level can be set up manually

- Red Adjust [50~200]
- Blue Adjust [50~200]

■ Auto Exposure Setup

```
<AUTO EXPOSURE SETUP>
BACK LIGHT    OFF
WDR           OFF
BRIGHTNESS    020
SHUTTER       OFF
SHUTTER VALUE 1/1
AGC           OFF
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<CAMERA SETUP>→<AUTO EXPOSURE SETUP>

- Backlight [ON/OFF]

Sets Backlight Compensation

- WDR [ON/OFF]

Wide dynamic range (WDR) balances the brightest and darkest sections of a scene to produce a picture that is perfectly balanced in light and clarity.

- Brightness [0~31]

Adjusts brightness of images. Iris, Shutter Speed and Gain are adjusted automatically in correspondence with this value

- Shutter [ON/OFF]

To select the auto electrical shutter on/off.

- Shutter Value[1/1~1/10000]

To select the shutter speed such as 1/1、1/25、1/50、1/100、1/300、1/1000、1/10000。

- AGC [ON/OFF]

Enhances image brightness automatically in case that luminance level of image signal is too low.

■ Motion Setup

```
<MOTION SETUP>
<PRESET SETUP>
<SWING SETUP>
<PATTERN SETUP>
<GROUP SETUP>
<AUTO SCAN>
<ZONES SETUP>
<TIMING ACTION>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

User can enter this menu to set the scanning function of dome, like preset, swing, group, auto scan, zones and timing action.

■ Preset Setup

```
<PRESET SETUP>
PRESET NO.      001
STATE           UNDEFINED
CLR PRSEET      CANCEL
CLR ALL PRESET  CANCEL
<EDIT SCENE>
<EDIT LABEL>
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<MOTION SETUP>→<PRESET SETUP>

- Preset Number [1~255] (Except [95])
If a selected preset is already defined, camera moves to pre- defined position. If a selected preset is not defined. "UNDEFINED" shows on monitor.

- Clear Preset [CANCEL / OK]
Delete current Preset data (include edit label)

- Clear all Preset [CANCEL / OK]
Delete all current Preset data (include edit label)

● Edit Scene

```
<EDIT SCENE>
```

```
OPEN SAVE
CLOSE EXIT
```

```
PTZ TO SELECT
OPEN ENTER  CLOSE EXIT
```

- Edit Scene
Redefine current Preset scene position Using Joystick move camera to desired position, By pressing OPEN to save current PTZ data.

- Edit Label
Edits Label to show on monitor when preset runs MAX. 10 alphabets are allowed. Enter edit label, "?" cursor will be displayed on the screen, using left/right of joystick to select character, and using up/down to move cursor, After inputting, press "OPEN" key to save and exit the setting.

■Swing Setup

```
<SWING SETUP>
SWING NO.      001
STATE          UNDEFINED
<START POSITION>
<END POSITION>
SWING SPEED    3
CLR SWING      CANCEL
SWING DIG      NORMAL
RUN SWING
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

● Start Position Setup

```
<START POSITION SETUP>
```

PTZ TO SELECT
OPEN ENTER CLOSE EXIT

● End Position Setup

```
<END POSITION SETUP>
```

PTZ TO SELECT
OPEN ENTER CLOSE EXIT

<MOTION SETUP>→<SWING SETUP>

- Swing Number [1~8]
Selects Swing number to edit.
- Start And End Position
Setup the 2 position for Swing function if a selected preset is not defined, "UNDEFINED" will be displayed.
When swing function runs, camera moves from the preset assigned as the start point to the preset assigned as the end point in CW (Clockwise) direction. The camera moves from preset assigned as the start point to preset assigned as the end point CCW(Counterclockwise) direction.
Then camera moves from the preset assigned as the endpoint to the preset assigned as the start point in CCW (Counterclockwise) direction.
- Swing Speed[03~15]
Sets Swing speed rating from 03 to 15.
- Clear Swing [CANCEL/OK]
Deletes current Swing data
- Swing Direction [INVERSE/NORMAL]
Set the current SWING scanning direction, the normal or inverse.
- Run Swing Run current Swing

■Pattern Setup

```
<PATTERN SETUP>
PATTERN NO. 001
STATE      UNDEFINED
CLR PATTERN CANCEL
<EDIT PATTERN>
<EDIT LABEL>
RUN PATTERN
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

● Edit Pattern

```
<PATTERN EDIT>
```

```
OPEN SAVE
CLOSE EXIT
```

```
TIME 160S
PTZ TO SELECT
OPEN ENTER  CLOSE EXIT
```

● Edit Label

```
<EDIT LABEL>
LABEL: ??????????
BACK
EXIT
```

```
OPEN SAVE
CLOSE EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<DOME SETUP>→<PATTERN SETUP>

- Pattern Number [1~4]
Selects Pattern number to edit.If a selected pattern number is not defined,"UNDEFINED" will be displayed under selected pattern number.
- Clear Pattern[CANCEL/OK]
Deletes data in current pattern.
- Edit Pattern
Move the cursor here and then Move the cursor here and then joystick to the right to enter.To start pattern recording, Move camera with joystick of controller or run preset function to memorize the path (mostly curve path) in a selected pattern. Maximum 500 commands can be stored in a pattern
- Edit Label
Edits Label to show on monitor when preset runs MAX. 10 alphabets are allowed. Enter edit label, "?" cursor will be displayed on the screen, using left/right of joystick to select character, and using up/down to move cursor, After inputting, press "OPEN" key to save and exit the setting.
- Run Pattern Run current Pattern

■ Group Setup

```
<GROUP SETUP>
GROUP NO.      001
STATE          UNDEFINED
CLEAR GROUP    CANCEL
<EDIT GROUP>
<EDIT LABEL>
RUN GROUP
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<MOTION SETUP>→<GROUP SETUP>

- Group Number [1~8]
Selects Group number to edit. If a selected Group number is not defined, "UNDEFINED" will be displayed under selected Group number.
- Clear Group [CANCEL/OK]
Deletes data in current Group

● Edit Group

```
<EDIT GROUP>
ID PRESET SPEED TIME
1 000 350 004S
2 000 350 004S
3 000 350 004S
4 000 350 004S
5 000 350 004S
6 000 350 004S
7 000 350 004S
8 000 350 004S
NEXT PAGE
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

- Edit Group
 - 1、 Press OPEN key to start Tour setup.
 - 2、 Note that MAX. 16 "Presets" are allowed in a Tour.
Move cursor up/down and press OPEN key to set up.
 - 3、 Set up Action, Dwell time and Speed is optional. Time value from displayed in reverse. Move cursor Left/Right to select items and 3 sec To 60 sec. Speed value from 30 to 360. Move cursor Left/Right to select items and move cursor Up/Down to change each value.

● Edit Label

```
<EDIT LABEL>
LABEL: ?????????
BACK
EXIT
```

OPEN SAVE
CLOSE EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

- Edit Label
Edits Label to show on monitor when preset runs MAX. 10 alphabets are allowed. Enter edit label, "?" cursor will be displayed on the screen, using left/right of joystick to select character, and using up/down to move cursor, After inputting, press "OPEN" key to save and exit the setting.
- Run Group Run current Group

■Auto Scan Setup

```
<AUTO SCAN>
SCAN SPEED      10
<TILT POSITION>
RUN SCAN
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<MOTION SETUP>→<AUTO SCAN>

- Scan Speed [10~50]
Sets Pan scan speed rating from 10 to 50.
- Tilt Position
Sets Auto scan Tilt position (Including the ZOOM).
- Run Scan Run current scan
Run Auto SCAN, ball machine according to a preset angle of TILT and ZOOM, 360° horizontal rotation, while running speed rating can be adjusted in 10~50.

● Tilt Position Setup

```
<TILT POSITION SETUP>
```

```
OPEN SAVE
CLOSE EXIT
```

■Zones Setup

```
<ZONES SETUP>
ZONES NO.      01
<LEFT  LIMIT>
<RIGHT LIMIT>
<EDIT LABEL>
LABEL DISPLAY  OFF
CLEAR ZONES    CANCEL
DELETE
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

● Left And Right Zone Setup

```
<LEFT ZONE SETUP>

PTZ TO SELECT
OPEN ENTER  CLOSE EXIT
```

● Edit Label

```
<EDIT LABEL>
LABEL: ????????
BACK
EXIT
```

OPEN SAVE
CLOSE EXIT

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<MOTION SETUP>→<ZONES SETUP>

The use can set up zone title when the camera moves to a defined location, which will make it much easier for the user to identify the location. The dome supports 8 zone titles. Please check the following steps to set up a zone

- Zones No. [01~08]
Move the cursor here Move a joystick left or right to choose the area of the need to set number(1~8)
- Left Limit
Move the joystick to right and enter into menu , press “OPEN” to save , press “CLOSE” to exit.
- Right Limit
Move the joystick to right and enter into menu , press “OPEN” to save , press “CLOSE” to exit.
- Edit Label
Edits Label to show on monitor when preset runs MAX. 10 alphabets are allowed. Enter edit label, “?” cursor will be displayed on the screen, using left/right of joystick to select character, and using up/down to move cursor, After inputting, press “OPEN” key to save and exit the setting.
- Label Display [ON/OFF]
To switch on / off the label display of zone.
- Clear Zones [CANCEL/OK]
Deletes data in current zone.

■Timing Action Setup

<TIMING ACTION>

NO.	START	STOP	MOTION
1	00:00	00:00	NOTHING
2	00:00	00:00	NOTHING
3	00:00	00:00	NOTHING
4	00:00	00:00	NOTHING
5	00:00	00:00	NOTHING
6	00:00	00:00	NOTHING

DAY: FRI

TIMING ACTION: ON/OFF

BACK

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

<MOTION SETUP>→<TIMING ACTION SETUP>

TIMING ACTION allows the user to set up the actions of the dome in 7 days (each day with 6 timing segments). When fishing the setup, the dome will do the actions according to the setup motion during the defined time segment.

- No.1~6

To display whole the six segments each day in a week.

- Start Time

To set up the start time for the defined motion within this time segment. Moving the cursor up / down to select item and left / right setting start time

- Stop Time

To set up the stop time for the defined motion within this time segment. Moving the cursor up / down to select item and left / right setting stop time.

- Motion [NOTHING]

To setup the motion that will be operated in this time segment. The motion includes: NOTHING/AUTOSCAN/SWING1-8/GROUP1-8/PATTER1-4/PRESET1-8.

- Day [MON/TUE/WED/THU/FRI/SAT/SUN]

To select date of the week.

- Timing Action [ON/OFF]

To select the timing action on/off.

Alarm Input Setup

```
<ALARM SETUP>
ALARM ENABLE    OFF
ALARM NO.       001
ALARM ACT       NOTHING
RELEASE TIME    10
START FAN       045°C
DEFROST         OFF
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

Match the Alarm sensor input to one of Preset Positions

/Home/Auto Scan/Group/Pattern/Swing. If an external sensor is activated, camera will corresponding command position when this item is predefined.

- Alarm Enable [ON/OFF]
Open or close the dome alarm function.
- Alarm No. [001~007]
Select alarm channel number
- Alarm x Action [NOTHING/PRESET/PATTERN/SWING/
GROUP]

Assign counteraction Preset position to each Alarm input.

- Release Time [01~60 S]
Alarm output time is postponed to a certain time, adjustable range is 01 sec to 60 sec.
- Start Fan [20~60°C]
Ex) If set start fan is 45°C, the dome will start fan when above 45°C, and it will stop to fan when temperature is lower than set value 5°C.
- Defrost [ON/OFF]
Open or close the dome defrosting function.

System Initialize

```
<SYSTEM INITIALIZE>
CLEAR ALL DATA  NO
CLR DISPLAY     NO
CLR CAMERA      NO
CLR MOTION      NO
CLR EDIT DATA  NO
REBOOT CAMERA   NO
REBOOT SYSTEM   NO
BACK
EXIT
```

UP AND DOWN TO SELECT
LEFT AND RIGHT TO ENTER

The dome allows the user to reset its settings remotely under this menu.

- Clear All Data Deletes all configuration data such as display, camera, motion setup and so on.
- Clear Display Set Initializes Display Configuration
- Clear Camera Set Initializes Camera Configuration
- Clear Motion Set Initializes Motion Configuration
- Clear Edit Data Deletes Preset Date, Swing Data, Pattern Data and Group Data
- Reboot Camera Reboots Zoom Camera module
- Reboot System Reboots Speed Dome Camera

Specifications

Product No.	15-CD66WIB	15-CD66WB
Video Signal System	NTSC / PAL	
CCD	1/4" Interline CCD	
Effective Pixels	SCM-2270(SAMSUNG): NTSC: 768(H)×494 (V) / PAL: 752(H)×582 (V)	
	SCM-2273(SAMSUNG): NTSC: 976(H)×494 (V) / PAL: 976(H)×582 (V)	
	CZ36SCM(COP): NTSC: 1028(H)×508(V)520K / PAL: 1028(H)×596(V)610K	
	SCM-2370(SAMSUNG): NTSC: 768(H)×494 (V) / PAL: 752(H)×582 (V)	
	SCM-2373(SAMSUNG): NTSC: 976(H)×494 (V) / PAL: 976(H)×582 (V)	
	FCB-EX1020(SONY): NTSC: Approx.380.000 pixels/PAL: Approx.440.000 pixels	
Horizontal Res.	SCM-2270(SAMSUNG): 560 TV Line	
	SCM-2273(SAMSUNG): 650 TV Line	
	CZ36SCM(COP): 700 TV Line	
	SCM-2370(SAMSUNG): 560 TV Line	
	SCM-2373(SAMSUNG): 650 TV Line	
	FCB-EX1020(SONY): 550 TV Line	
Zoom	SCM-2270/ SCM-2273(SAMSUNG): x 27 Optical Zoom, x 16 Digital Zoom	
	CZ36SCM(COP): x 36 Optical Zoom, x 32 Digital Zoom	
	SCM-2370/ SCM-2373(SAMSUNG): x 37 Optical Zoom, x 16 Digital Zoom	
	FCB-EX1020(SONY): x 36 Optical Zoom, x 12 Digital Zoom	
Focal length	SCM-2270/ SCM-2273(SAMSUNG): f 3.5mm~95mm	
	CZ36SCM(COP): f 3.4mm~122.4mm	
	SCM-2370/ SCM-2373(SAMSUNG): f 3.5 mm~129.5 mm	
	FCB-EX1020(SONY): f 3.4mm~122.4mm	
S/N	Ration 50 dB (AGC Off)	
Min. Illumination	0.2 Lux /F1.67(50 IRE)Color / 0.02 Lux F1.67 (50 IRE)B/W	
Day & Night	Auto / Day(Color) / Night(ICR, B/W)	
Focus	Auto / Manual / Semi Auto	
Iris	Auto / Manual / Semi Auto	

Shutter	1/1~ 1/10000 sec	
AGC	ON / Off	
White Balance	Auto / Manual(Red, Blue Gain Adjustable)	
BLC	ON/ Off	
Pan Speed	0.01~360°/S Range:360°endless	
Tilt Speed/Range	0.01~120°/S Range:-10°~90°	
Preset	255 Preset	
	Preset Accuracy +/- 0.01°	
Swing	8 auto scan tracks, user-defined left and right boundaries and scan speed	
Pattern	4 Pattern, each pattern 160 sec or 500 instructions	
Group	8 cruising tracks, each cruising tracks has 16 preset positions, user-defined dwell time	
Auto Scan	1 set of Pan scan can be stored. This is to keep the ball machine according to the elevation angle of executive level 360 continuous rotation and speed can be adjusted.	
Other Functions	Auto flip, Parking action, Power Up Action etc.	
Schedule	Timing actions for 7 days of programmable schedule	
Communication	RS-485(9600, 4800, 2400 Selectable or change from OSD menu)	
Protocol	Pelco-D, Pelco-P, Auto identify	
Privacy Zone	8 Zone	
Alarm Input	7 Input	
Alarm Output	2 Output(Transformational relay)	
OSD	Menu / PTZ information etc	
IR LED	10 pcs Hi-Power	X
Projection Distance	150M	X
Fan and Heater	Yes	
Wiper	Yes	
Defrost	Yes	
IP Protection	IP66	
Power	AC24V / 3A	AC24V / 2A
Dimension	Ø230 x 371.5(H)mm	
Weight	5Kg	
Operating Temp.	-35°C~+55°C	

Optional Bracket

► Ceiling Bracket (15-CD03BU1)



► Pole Bracket (15-CD04BHI)



► Inside Corner Bracket (15-CD06BHI)



► Outside Corner Bracket (15-CD05BHI)



► 21cm Pendent Bracket (15-CD03BH1)



► 3Feet Pendent Bracket (15-CD03BH3)



► 6Feet Pendent Bracket (15-CD03BH6)



► Power Box(15-CD10BC)

