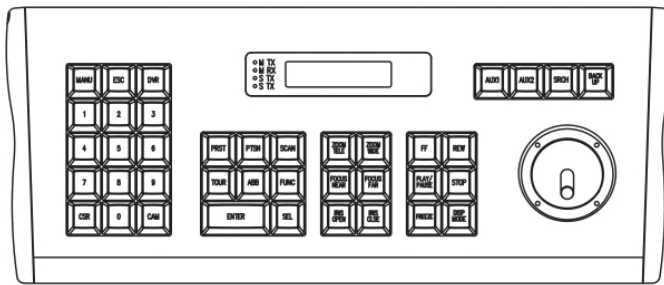


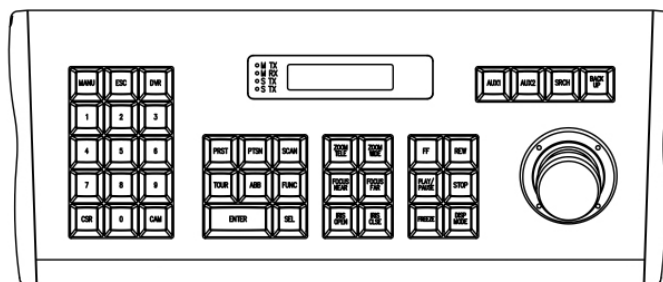
SYSTEM CONTROLLER

2 AXIS STANDARD
3 AXIS STANDARD
3 AXIS WEB

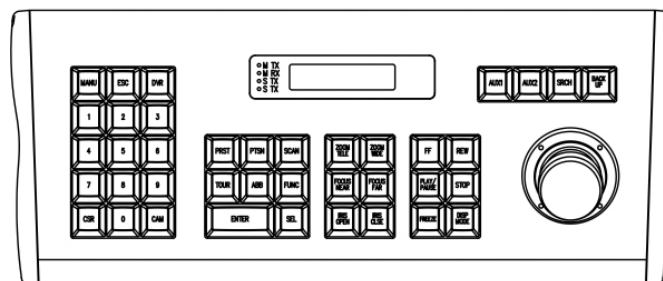
Instruction Manual



2 AXIS STANDARD



3 AXIS STANDARD



3 AXIS WEB

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|--|-----------|
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What's in the Box ?

- 1. Controller**
- 2. Junction Box**
- 3. RJ45 8pin Modular Cable 1EA**
- 4. Manual**

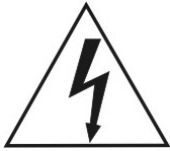

WARNING & CAUTION

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION

| | | |
|---|---|--|
|  | CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN |  |
| CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER(OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. | | |

EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, 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.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER : THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION : CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CE COMPLIANCE STATEMENT

THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

GENERAL DESCRIPTIONS

A. GENERAL DESCRIPTIONS

2 AXIS STANDARD, 3 AXIS STANDARD and 3 AXIS WEB are pan/tilt controller and it allows operator to use the functions easily.

- This controls camera functions such as pan, tilt, zoom, focus and DVR control.
- This saves and calls camera preset positions.
- Activates pre-programmed pattern, auto-scan and group tour function keys.
- The LCD shows display current status as well as provides a menu to set operational parameters.
- This controller is designed for desktop operation and interface connectors are located in the junction box.

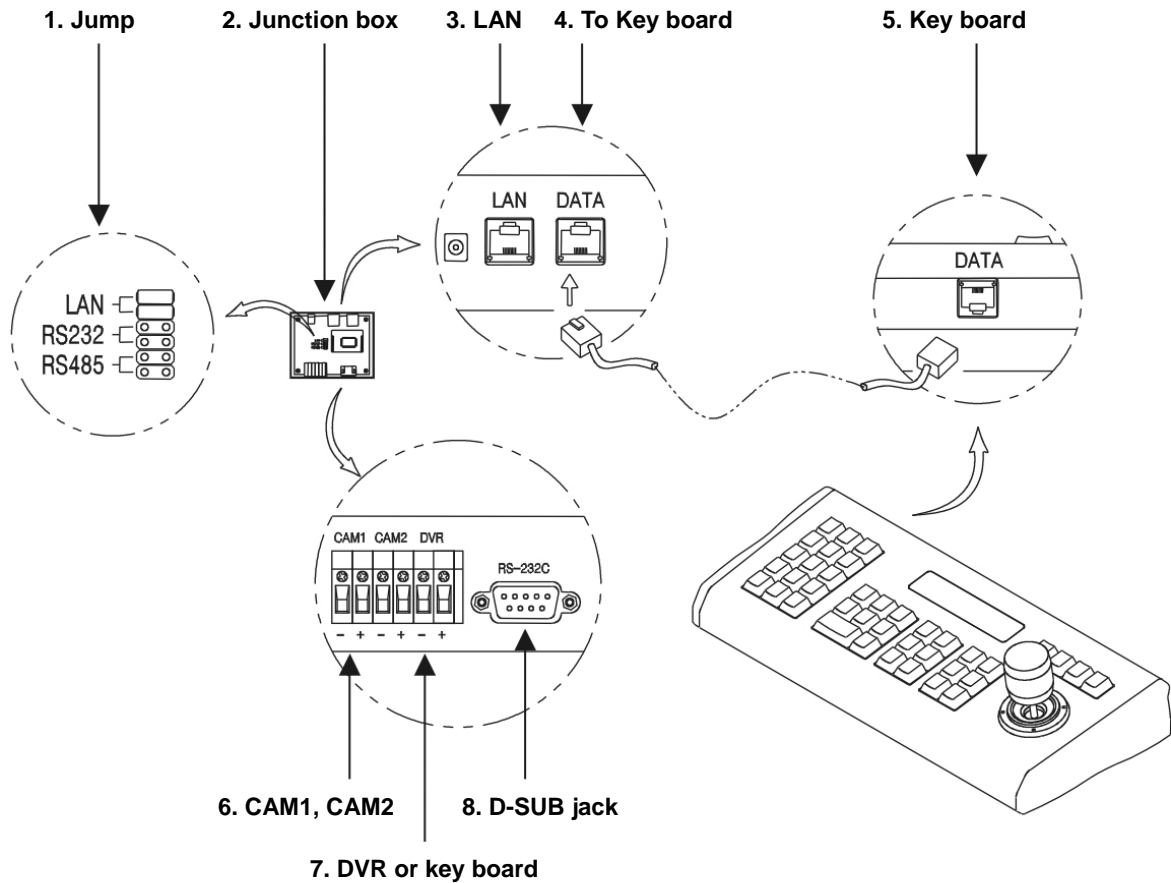
B. FEATURES

- To control up to 255 cameras from one key board.
- PELCO-D protocol supported
- Preset position control
- Various manual speed control (1~64 steps)
- Maximum speed is changed according to zoom ratio
- To recall programmed guard tours from each dome camera
- To recall programmed auto-scan from selected dome camera
- Built in LCD display with blue screen
- Programmable user preference. (Tour, preset, pattern, auto-scan, etc.)
- User password and system hold function
- To support DVR protocol (Need to be modified)
- To support web communication for TX/RX (3 AXIS WEB only)
- Slave communication by RS232 and 485

INSTALLATION

Open the box and check if below all items are included in the box.

- Key board----- 1
- Junction box----- 1
- 8P RJ45 modular cable (2m)----- 1



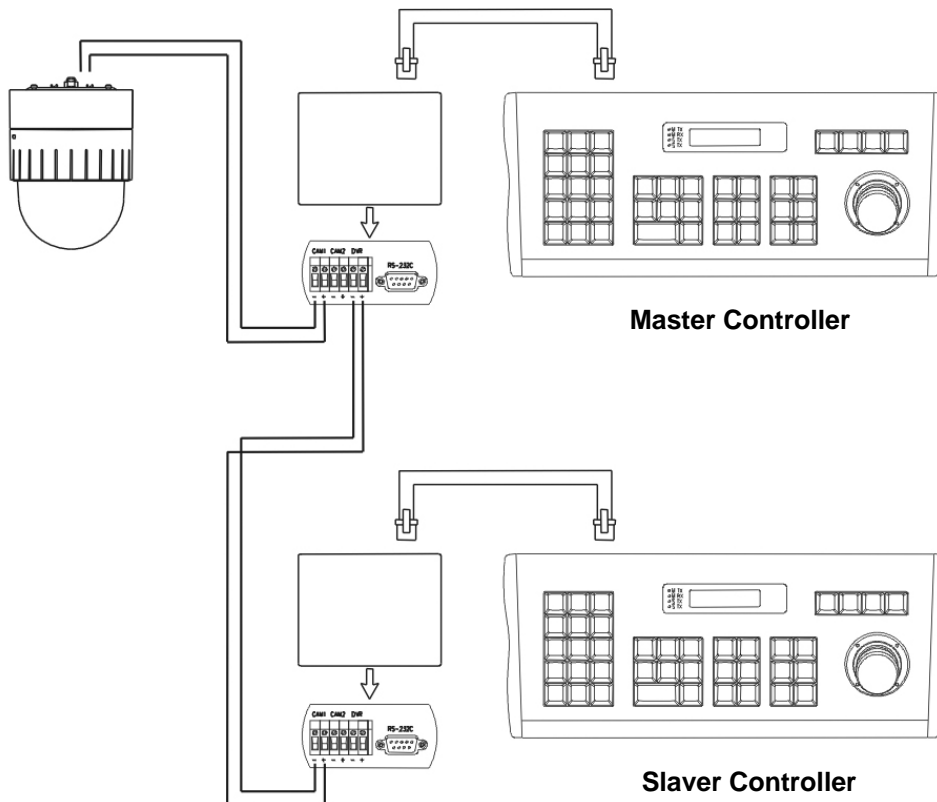
1. Jumper setting
2. Junction box
3. LAN cable connector (100 Base/T)
4. Junction box data in/out port(to key board)
5. Key board data in/out port (to junction box)
6. Master RS485 D+/D- (to CAM1, CAM2)
7. Slave RS485 D-/D+ (to DVR or slave key board)
8. Slave data output port (To DVR etc...)

INSTALLATION

CONNECTOR

There is one connector on the controller, which connector is RJ45 for master control.

- A. Connect RJ45 on the rear of controller and DATA on the junction box and plus in DC12V power to DC jack
- B. Open the junction cover and set slave interface jumps (LAN, RS232 or RS485) default setting for 2 AXIS STANDARD and 3 AXIS STANDARD is by RS232 and 3 AXIS WEB is by web
- C. Connect CAM1 (RS485(D+), RS485(D-)) on junction box terminal and communication jack on PTZ camera (please make sure of polarity)
- D. When you use DVR together, in case of 3 AXIS WEB, connect LAN on the junction box and LAN cable, in case of 3 AXIS STANDARD, connect 9 pin D-SUB jack
- E. Turn on the power and then you will be in starting mode
- F. Slave controller connection
 - F-1. Connect the RS485 slave of master controller junction box with RS485 master of slave controller junction box. Pay attention to the polarity.
 - F-2. Set the jump to RS485 inside master controller junction box. (refer to page 7-B)
 - F-3. Make master RS485 baud rate of slave controller same as slave RS485 baud rate of master controller. (Slave default baud rate of master controller : 9600 bps)



INSTALLATION

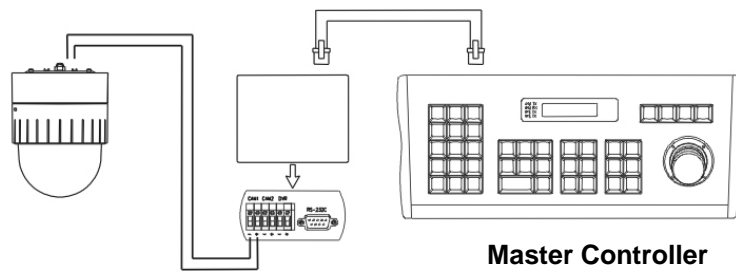
CONNECTION

G. How to connect controller and DVR

G-1. Be careful for the polarity and connect master RS-485 of controller junction box and RS-485 of dome camera. (D+ → D+, D- → D-)

G-2. Be careful also for the polarity and connect the slave RS-485 of controller junction box and master RS-485 of DVR. (D+ → D+, D- → D-)

Refer to the bottom picture, when you are using up to 1PC of DVR, you can connect only DVR no. 1.



H. Multi connection of controller and DVR. (over 2 pcs of controller and DVRs).

H-1. Be careful for the polarity and connect master RS-485 of controller junction box and RS-485 of dome camera. (D+→ D+, D- → D-)

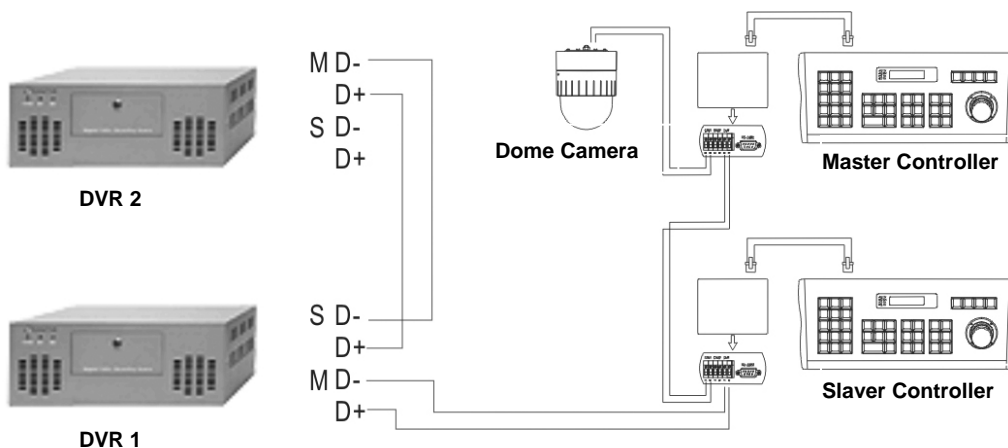
H-2. Connect the slave RS-485 of master controller and master RS-485 of slave controller.

H-3. Be careful also for the polarity and connect the slave RS-485 of controller junction box and master RS-485 of DVR. (D+ →D+, D- → D-)

H-4. Connect slave RS-485 of master DVR and master RS-485 of slave DVR.
(You can use more DVR like this method.)

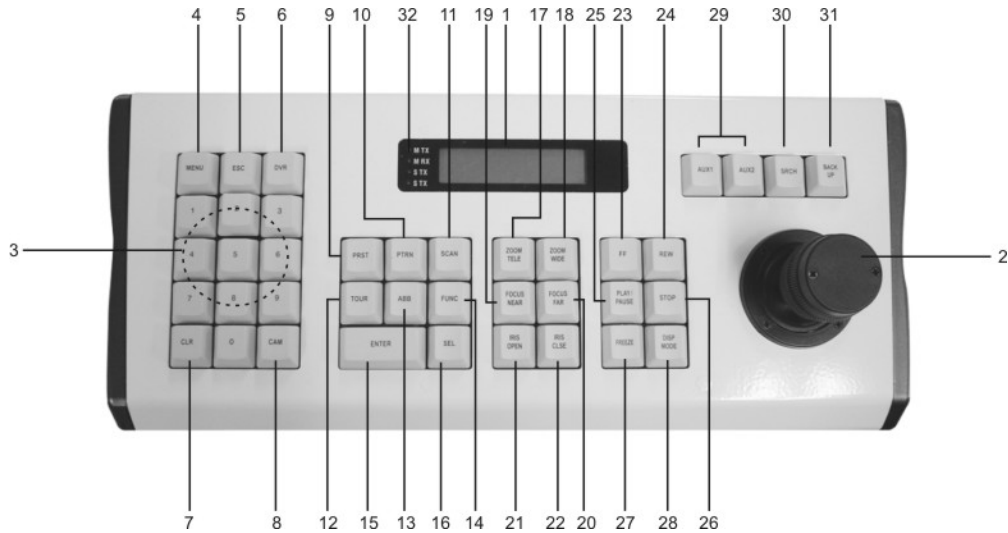
H-5. DVR should have RS-485 master/slave, or if it has only RS-232, you should convert RS-232 to RS-485 by converter from the market.

If ID is not for itself, the firmware of DVR should hand over the code to master of DVR.



PART NAME & FUNCTIONS

A. PART NAME & FUNCTIONS



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. LCD Display : Displays numeric input, system status, function status, general status, etc... 2. Telemetry joystick : Allows precise control of Pan/Tilt/Zoom & moving to menu 3. 0~9 : Numeric key. 4. MENU : Used for camera (PTZ camera) and DVR menu adjustment. 5. ESC : Closes the current work and goes to starting mode 6. DVR : Selects address of DVR (up to 255) 7. CLR : Cancels key 8. CAM : Selects address of camera, Mux, Quad and matrix switcher 9. PRST : Saves and calls camera presets and positions 10. PTRN : Runs to camera pattern key 11. AUTOSCAN : Runs to auto-scan key 12. TOUR : Runs to tour key 13. ABB : Short key to move to a certain preset easily 14. FUNC : Function key 15. ENTER : Enter key | <ol style="list-style-type: none"> 16. SEL : Selects key (DVR and key board setting mode) 17. ZOOM TELE : Camera zoom control for tele 18. ZOOM WIDE : Camera zoom control for wide 19. FOCUS NEAR : Camera focus control for near 20. FOCUS FAR : Camera focus control for far 21. IRIS OPEN : Camera iris control for open 22. IRIS CLOSE : Camera iris control for close 23. FF : DVR FF key 24. REW : DVR REW key 25. PLAY/PAUSE : DVR play and pause key 26. STOP : DVR stop key 27. FREEZE : Freeze key 28. DISP/MODE : Select of division mode 29. AUX1, AUX2 : Aux on/off key (of receiver unit) 30. SEARCH : DVR search key or AUTO SCAN key 31. BACKUP : DVR backup key 32. LED : TX, RX status view |
|--|--|

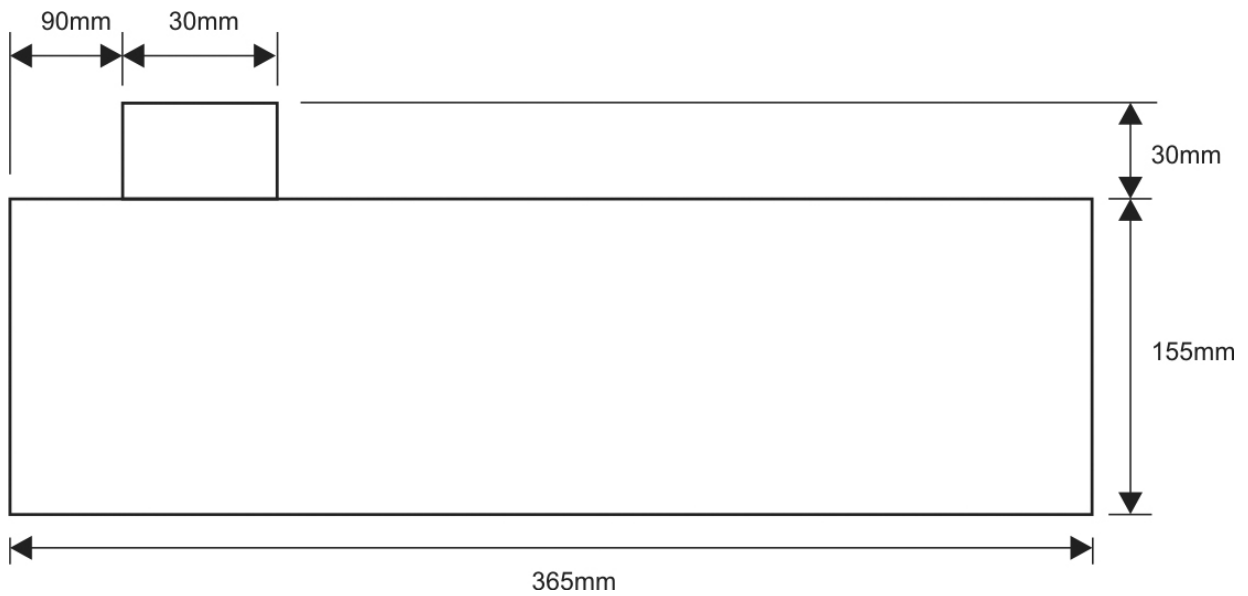
PART NAME & FUNCTION

B. PART NAME & FUNCTIONS (REAR SIDE)



Ⓐ Data out port (Connector to communication and power)

C. DRAWING OF CONSOLE DESK

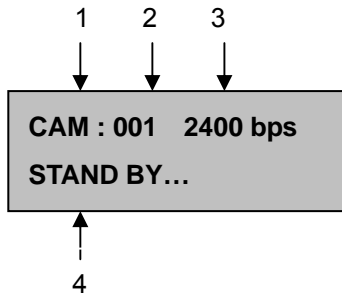


ACCESSING TO THE CAMERA MENU

This function is only for the PTZ camera

A. DISPLAY LCD WINDOW

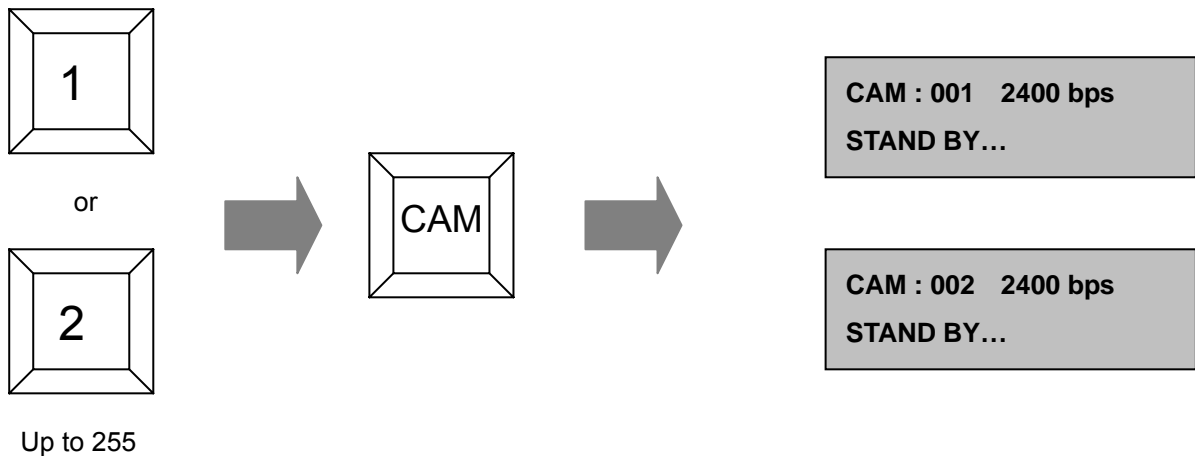
A-1. Initial display



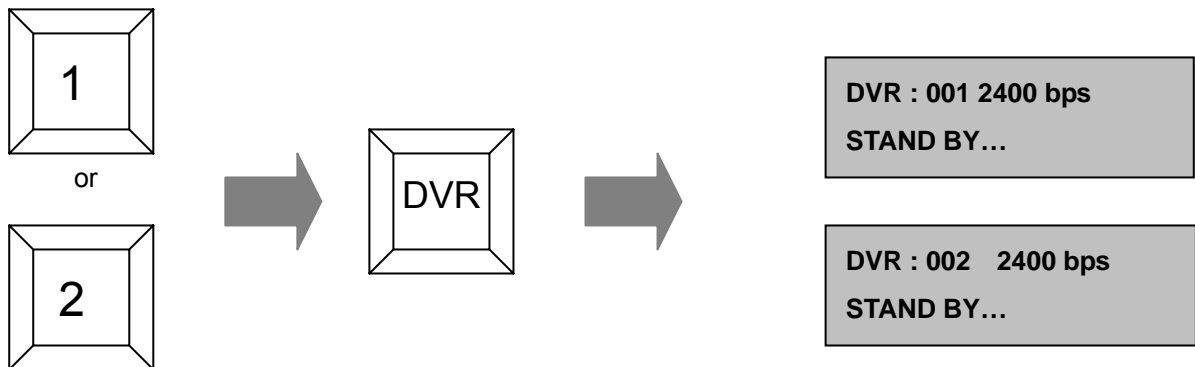
1. Show the selected unit (Camera or DVR)
2. Show the selected unit address No. (001 ~ 255)
3. Show the selected baud rate (2400/4800/9600 bps)
4. Show the controller status

B. How to select address

B-1. How to select address number 1 or 2 of camera.



B-2. How to select address number 1 or 2 of DVR

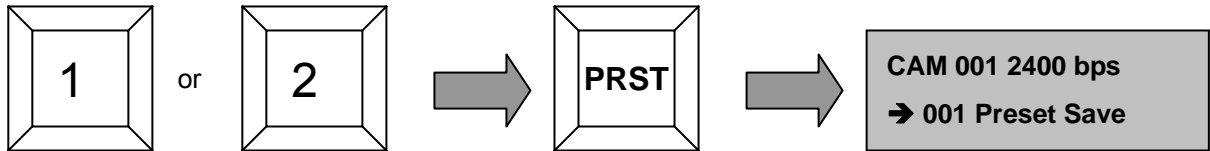


ACCESSING TO THE CAMERA MENU

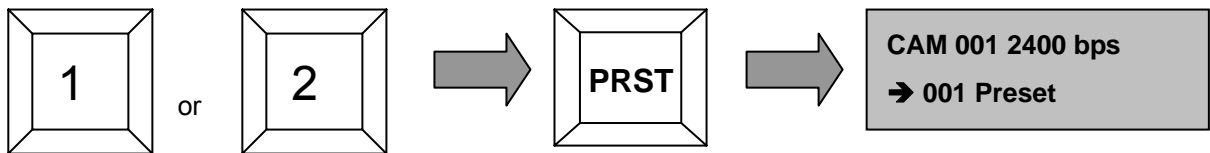
C. Easy preset save and calls (in case of Cam1/2400 bps)

C-1. How to save preset 1 or 2 (Up to 255)

After pushing no. 1 or 2. hold PRST for about 2 seconds)



C-2. After pushing no. 1 or 2. push PRST shortly, it makes PRST work.

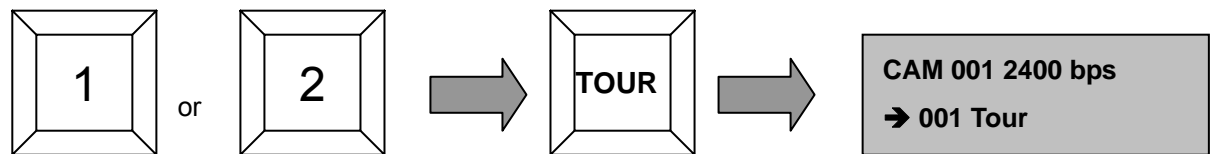


D. How to use TOUR function

D-1. How to use tour (in case of Cam1/2400 bps)

(You can select 1~255, preset position and tour is working when they are stored at cameras.)

- How to use tour

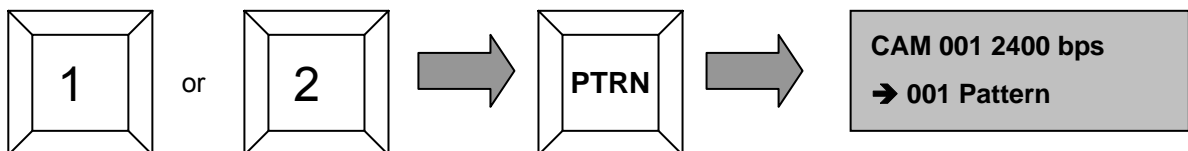


Up to 255

E. How to use PATTERN function

(You can select 1~255, preset position and pattern data is working when they are stored at cameras.)

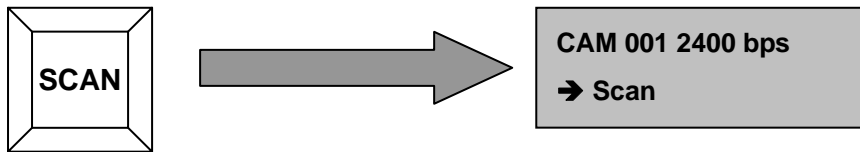
- How to pattern run?



ACCESSING TO THE CAMERA MENU

F. How to use AUTOSCAN function

F-1. How to use autoscan.

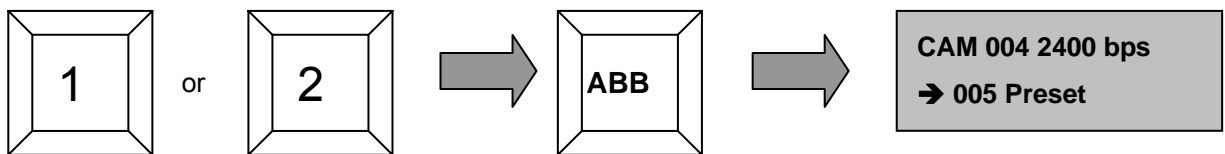


G. How to use ABB Key

(ABB key is a short key to move to a certain preset easily when you use many cameras.)

G-1. How to use ABB function. (Up to 255)

ex) In case you stored preset 5 of camera 4 in ABB1.

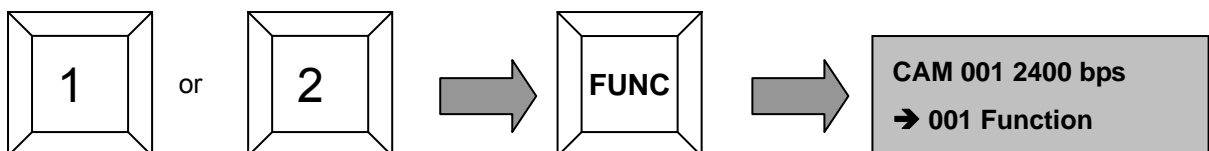


H. How to use FUNCTION Key

- You can use function key from 1~255, it is not active now.

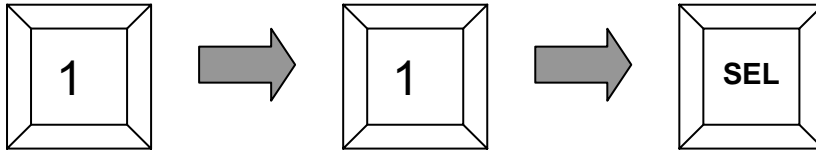
- You can use function keys for certain short keys such as DSS, WDR and BLC...)

- How to use



HOW TO USE SETUP MENU

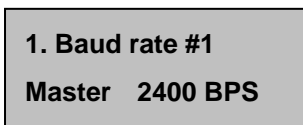
When you change the setting value of setup menu, you should enter "5. Save and Exit"
How to go to setup menu : After pushing no. key 11, hold SEL key for over 3 seconds).



A. How to use setup menu

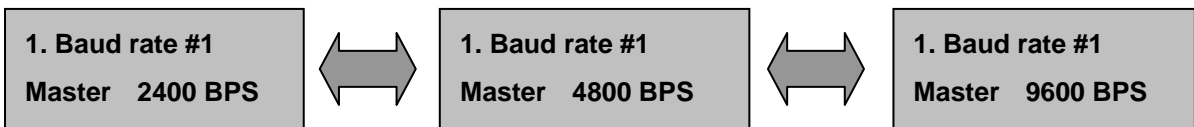
A-1. As you move joystick up and down, you can go to next menu, move left and right, you can change the value of setting.

A-2. Starting display in setup menu.



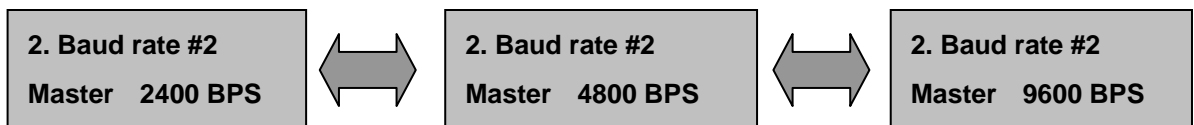
A-3. How to set the master baud rate

(You can change the value of master baud rate by moving joystick left and right)



A-4. How to change slave baud rate

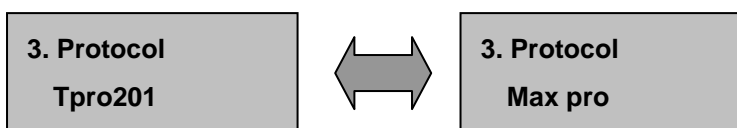
(You can change the value of slave baud rate by moving joystick left and right)



A-5. How to change protocol

(You can change the protocol by moving joystick left and right)

* Tpro201 includes Pelco-D, so when you need to use Pelco-D, you can use Tpro201.



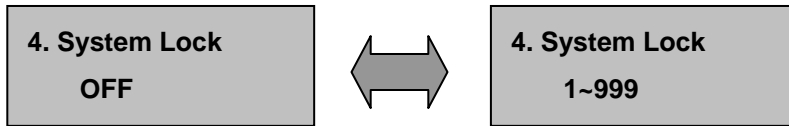
HOW TO USE SETUP MENU

A-6. How to use system lock function

You can use 0~999 by no. key

when you input 000. it is OFF, when you input 001~999, lock mode works

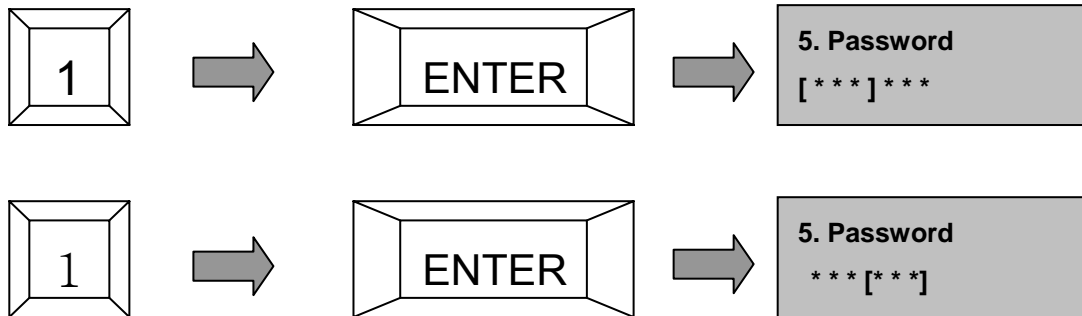
* Lock mode will be active, when keyboard and joystick are not used for the set time.



A-7. How to enter password

- You can choose 0 up to 999 and push enter key

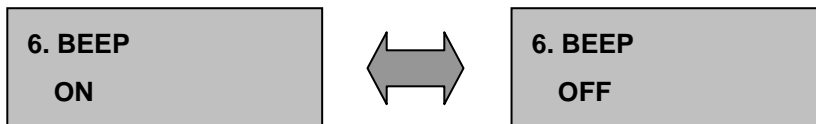
- When you forget the password, you need to call to the vendors you purchased from.



A-8. Beep

How to set beep.

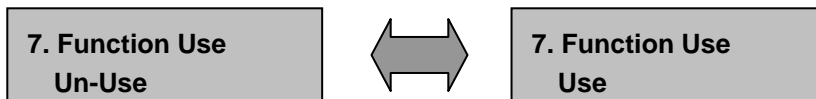
- You can change the beep On/Off by moving joystick left and right



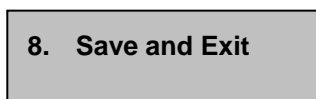
A-9. Function use

How to set function uUse.

- You can change the function Use/Un-Use by moving joystick left and right



A-10. How to Save and Exit by joystick left and right



A-11. EXIT



SPECIFICATION

| | | |
|---|----------------------|--|
| MODEL | | |
| Communication | | Master : RS485 (2400bps, 4800bps, 9600bps) Slave : RS232 (2400bps, 4800bps, 9600bps) LAN : (3 AXIS WEB only) (2400bps, 4800bps, 9600bps) |
| Joystick Power Consumption | 2-Axis | 3-Axis, zoom in/out available |
| | DC 12V, 110mA | |
| Display Type | | 16 x 2 character LCD, with blue backlight |
| Key Type | | PC key board button |
| Key Board Connector Type | | RJ45 8 pin modular cable |
| Junction Box Connector | | Master : Terminal block. Slave : 9 pin D-SUB connector, 8 pin modular |
| Humidity | | 10% ~ 70% non condensing |
| Web | | — |
| Dimension | | 140(W) x 185(H) x 365(D) |
| Weight | | 1.2kg |

DIMENSION

