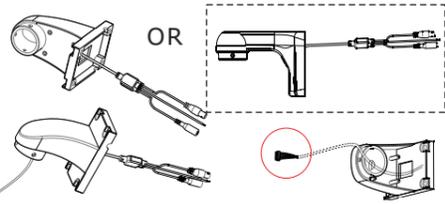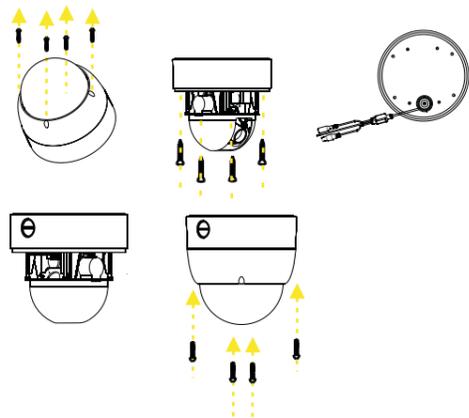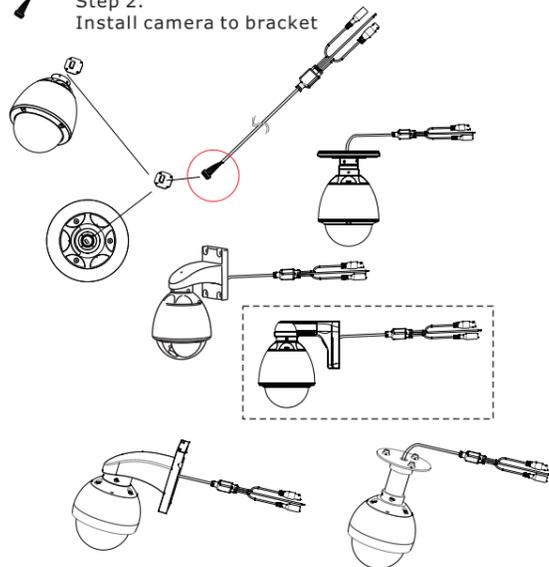# 1 How to install

Step 1.
Install bracket

OR

Step 2.
Install camera to bracket

2 Connect Interface

The dome camera cable include power, RS-485, video out.

RS-485 interface is two cable
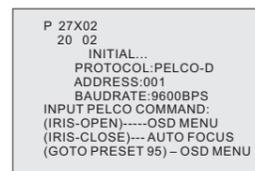**Purple** color is 485 A/+
Gray color is 485 B/-

Video out interface

The dome camera can be setup address baud rate and protocol from PTZ Controller.
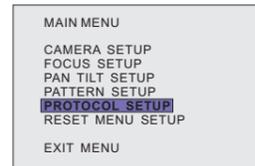
3 How to setup address

(1)After Initial starting,the OSD will display 485 baud rate, address,protocol,as following picture shown:

```
P 27X02
  20  02
        INITIAL...
        PROTOCOL:PELCO-D
        ADDRESS:001
        BAUDRATE:9600BPS
INPUT PELCO COMMAND:
(IRIS-OPEN)-----OSD MENU
(IRIS-CLOSE)--- AUTO FOCUS
(GOTO PRESET 95) – OSD MENU
```
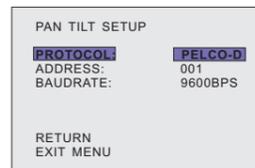
DVR or PTZ controller, the 485 Option sets up the same as the PTZ camera,so you can make it work.

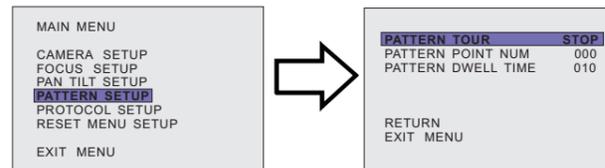(2)Change the PTZ camera's 485 communication settings:

1)Press ''IRIS open'',and enter into OSD menu as following picture shown

```
MAIN MENU

CAMERA SETUP
FOCUS SETUP
PAN TILT SETUP
PATTERN SETUP
PROTOCOL SETUP
RESET MENU SETUP

EXIT MENU
```

2)Enter in the submenu of PROTOCOL SETUP to setup PROTOCOL,ADDRESS and BAUDRATE

```
PAN TILT SETUP

PROTOCOL:        PELCO-D
ADDRESS:         001
BAUDRATE:        9600BPS



RETURN
EXIT MENU
```

3.PATTERN SETUP

```
MAIN MENU                    PATTERN TOUR        STOP
                             PATTERN POINT NUM   000
CAMERA SETUP                 PATTERN DWELL TIME  010
FOCUS SETUP
PAN TILT SETUP
PATTERN SETUP
PROTOCOL SETUP               RETURN
RESET MENU SETUP             EXIT MENU

EXIT MENU
```

3-1 PATTERN TOUR
    STOP:Stop PATTERN
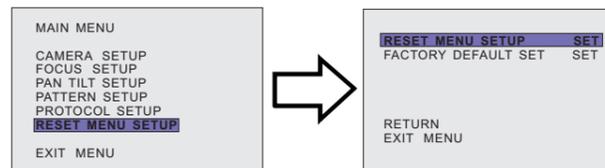   START: Start PATTERN
3-2 PATTERN POINT NUM
    The number of cruise point setting, if set 5, then PATTERN between preset 1-5.
3-3 PATTERN DWELL TIME
    PATTERN DWELL TIME Setup

.

5.RESET MENU SETUP

```
MAIN MENU                    RESET MENU SETUP    SET
                             FACTORY DEFAULT SET SET
CAMERA SETUP
FOCUS SETUP
PAN TILT SETUP
PATTERN SETUP
PROTOCOL SETUP               RETURN
RESET MENU SETUP             EXIT MENU

EXIT MENU
```
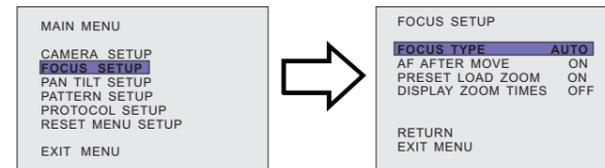
5-1 RESET MENU SETUP
    Recovery PTZ menu settings to the factory default
5-2 FACTORY DEFAULT SET
    Resets all parameters to the original factory settings
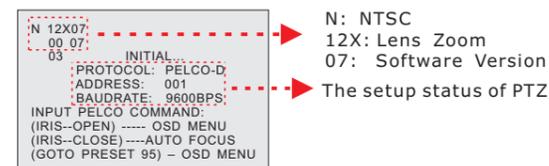
4 Pan Tilt Zoom Dome Camera OSD Manual

MAIN MENU

```
MAIN MENU                    FOCUS SETUP

CAMERA SETUP                 FOCUS TYPE      AUTO
FOCUS SETUP                  AF AFTER MOVE    ON
PAN TILT SETUP               PRESET LOAD ZOOM ON
PATTERN SETUP                DISPLAY ZOOM TIMES OFF
PROTOCOL SETUP
RESET MENU SETUP             RETURN
                             EXIT MENU
EXIT MENU
```

1.FOCUS SETUP

1-1 FOCUS TYPE
    AUTO: AUTO FOCUS
    MANUAL: MANUAL FOCUS
1-2 AF AFTER MOVE ON/OFF
    Auto Focus Setup After AF Move
1-3 PRESET LOAD ZOOM ON/OFF
    Loaded ZOOM position when adjusting Preset
1-4 DISPLAY ZOOM TIMES
    ON: Display ZOOM Times
    OFF:Turn off Display of ZOOM Times
1-5 RETURN
    Return to the previous menu
1-6 EXIT MENU
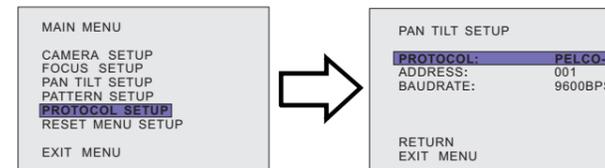   Exit Menu

4.PROTOCOL SETUP

RS485 PROTOCOL Setup
After turn PTZ OSD will display 485 baud rate, address, protocol, and other information, as shown below:

```
N 12X07                      N:  NTSC
  00  07:                     12X: Lens Zoom
  03    INITIAL               07:  Software Version
        PROTOCOL: PELCO-D
        ADDRESS:  001
        BAUDRATE: 9600BPS    The setup status of PTZ
INPUT PELCO COMMAND:
(IRIS--OPEN) ----- OSD MENU
(IRIS--CLOSE) -----AUTO FOCUS
(GOTO PRESET 95) – OSD MENU
```

DVR or controller 485 set the same as PTZ, then you can PTZ control.

Change RS485 PROTOCOL Setup:
Press IRIS-OPEN Key to Enter MAIN MENU

```
MAIN MENU                    PAN TILT SETUP

CAMERA SETUP                 PROTOCOL:        PELCO-D
FOCUS SETUP                  ADDRESS:         001
PAN TILT SETUP               BAUDRATE:        9600BPS
PATTERN SETUP
PROTOCOL SETUP
RESET MENU SETUP             RETURN
                             EXIT MENU
EXIT MENU
```
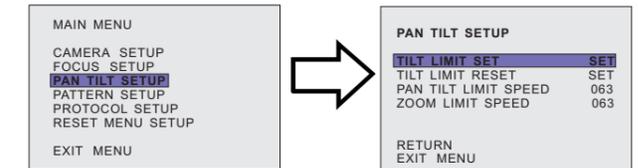
4-1 PROTOL: PELCO-D/P
PROTOCOL you can choose PELCO-D or PELCO-P
4-2 ADDRESS:
Address set: 1~255
4-3 BAUDRATE:
4 Baud rate choose: 1200BPS/2400BPS/4800BPS/9600BPS

2.PAN TILT SETUP

```
MAIN MENU                    PAN TILT SETUP

CAMERA SETUP                 TILT LIMIT SET        SET
FOCUS SETUP                  TILT LIMIT RESET      SET
PAN TILT SETUP               PAN TILT LIMIT SPEED  063
PATTERN SETUP                ZOOM LIMIT SPEED      063
PROTOCOL SETUP
RESET MENU SETUP             RETURN
                             EXIT MENU
EXIT MENU
```

2-1 TILT LIMIT SET
    PTZ Upward angle limit setting:
    In order to obtain a larger viewing angle range, the machine factory set upward angle.
    If you care about the camera in the ceiling spaces see the shell, the user can set the upper limit position.
    Turnning PTZ to the position you want to set,
    Enter OSD and press IRIS-OPEN will set this position to Upper limit。
2-2 TILT LIMIT RESET
    Choose this menu and press IRIS-OPEN key will clear Tilt limit Setup
2-3 PAN TILT LINIT SPEED
    PTZ speed Settign,63 is the fastest
2-4 ZOOM LIMIT SPEED
    The ZOOM pulled speed Setup, 63 is the fastest

4-4 : Address 255 (NO.06 above support this feature)
Using address255,You can control all the same protocols and baud rate connected with the DVR 485 but the address is different from the PTZ.
Using address 255 control,
press IRIS-OPEN Enter OSD choose PAN TILT SETU Submenu, RETURN will become RANDOM ADDRESS

```
PAN TILT SETUP               PAN TILT SETUP
PROTOCOL:        PELCO-D     PROTOCOL:        PELCO-D
ADDRESS:         001         ADDRESS:         001
BAUDRATE:        9600BPS     BAUDRATE:        9600BPS



RETURN                       RANDOM ADDRESS
EXIT MENU                     EXIT MENU
```

DVR:PELCO-D 001 9600   DVR:PELCO-D 255 9600

When you are in RANDOM ADDRESS press IRIS-OPEN key
Will create a random address, such as the right address 026

```
PAN TILT SETUP
PROTOCOL:        PELCO-D
ADDRESS:         026
BAUDRATE:        9600BPS



RANDOM ADDRESS
EXIT MENU
```
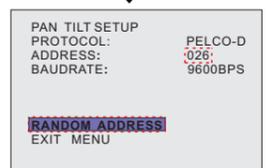
Has this feature the user do not set address before install PTZ,
255 address after installation can also be used to control and select
RANDOM ADDRESS to creat random addresses,
in this way, multiple head connected with the DVR
and 485 will have a different address,
And then use the new address can be controlled separately.

1 Installation
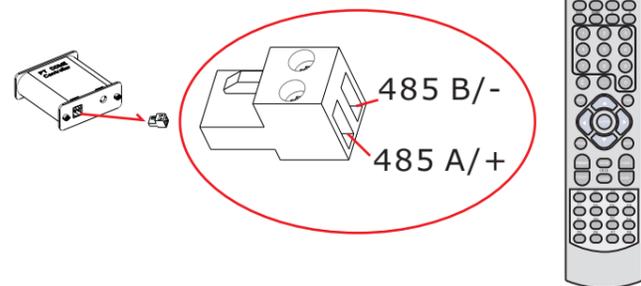
Connect 485 port to PTZ dome 485 cable,
Connect DC12V to power port.
After power on, controller will display A001
or P001
A means address of command, 001 is
address number.
P means preset point, 001 is preset number.

485 B/-
485 A/+

2 How to control PTZ

When you press **CAM** button, Screen display like
`A001` , First **A** means address,Another 3 digital
001 means address number is 1, You can press
number key input digital after **A**, if number big than 9,
you need press **-/--** to input number more than 9.
Press button **C** can delete last input number,When
you set address 1 isPelco-D protocol, this is Pelco-D
ID address, means Pelco-D ID address is 1,When you
set address 1 is Pelco-P protocol, this number plus 1
is Pelco-P ID address, means Pelco-P ID address is 2
(Some unit use address address, some use ID address)

When you press **SHUT** button, Screen display like
`P002` , First **P** means preset point, Another 3
digital **002** means address number is 2, You can
input preset number like address number. After
you input preset number,Camera will got this preset
point you selected.

When you press **SPEED** button, Screen display like
`S-63` , First **S** means speed number, Another 2
digital **63** means speed number is setup to 63,
You can input preset number like address number.
Speed number is pan tilt speed,From 1 to 63, 63 is
fast speed.
When you press **HOME** button, Screen display
`HOME` , means home point of preset, you
can use **PRESET, DELELT** set or clean this point.

When you press **A** or **B** button, Screen display
`LE-A` or `LE-b` , means
limited-A or limited-B point of preset, It will use
as left or right limited at auto mode.You can use
PRESET, DELELT set or clean this point.

When you press **PRESET** button for 3 second,
Screen display `SEt-` , means in preset mode,

If you want set a preset number, you need press
PRESET button 3 seconds, and controller will display
SET- , At this time you can input a number(also at this
time, you can press **HOME A B** key set point home
and limited left right point),If you need input a
number more than 10,you need press button **-/--**
at first.After input number, need press **ENTER** key
confirm it. When you press **SETUP** key at this mode,
Will send setup command to camera, Setcamera
address and protocol same as PTZ Controller at this
time.Press **DISP** key at this time will setup alarm host
address(**only for alarm model**)

When you press **DELETE** button for 3 second,
Screen display `CLr-` , means in preset clean
mode, If you want clean a preset number, you
need press **DELETE** button 3 seconds, and controller
will display **CLR-** , At this time you can input a
number(also at this time, you can press **HOME A B**
key clean point home and limited left right point),
If you need input a number more than 10,
you need press button**-/--** at first. After input number,
need press **ENTER** key confirm it.

When you press **DISP** button, Screen display
`U0 18` , means software version is version 18.

When you press **DISP** button again, Screen display
`d=24` , means protocol setup at this address.
First letter is protocol type, If display **d**, means
Pelco-D, If display **P**, means Pelco-P, last two digital
means baud rate,   **12** means 1200bps,
    24 means 2400bps, **48** means 4800bps,
    96 means 9600bps.
Like if protocol setup to Pelco-P 9600bps,
screen will display `P=96` at this time.

Press DISP button third times, Screen display
`H 128` , means alarm host addressis 128, this is only
for PTZ Controller (with alarm in and alarm out model).

When you press **SETUP** button, Screen display
like `d=24` or `P=96` ,PTZ Controller go to
setup protocol mode, Press left right key modify protocol,
when you press left or right key, you can see **d** or **P**
change at screen.Press up down key can modify baud
rate, you can see **12 / 24 / 48 / 96** change at screen.
Press **ENTER** key can save this configuration and return
to normal mode.

You can setup different protocol for different
address, For example you can setup address 1
is Pleco-D 2400bps, address 2 can be Pelco-P
9600bps.When you at setup mode, you press **C**
button, screen will black for 10 second, PTZ Controller
will clean all protocol setup and setup all address
to Pelco-D 2400bps.

3 How to start pattern tour tracking cruise

When you press **PATTERN** button first time, Screen display `PStA` , means goto pattern
track setup mode,At this mode, Input what preset point you want go, you can input 16 point
at here,For example: If you want camera run like preset 6,preset 2, preset 3, preset 8,You
can go to preset 6, preset 2, preset 3, preset 8, camera will record this point to track.At this
time, you can set speed from one point to next point, and stay time from one point to next
point.In default number, speed from one point to next point is fast speed 63, stay time from
one point to next point is 8 second(include move time from one point to next point).Press
PATTERN secound time, screen display `PStO` ,End set tour track mode.

How to start pattern tour track cruise:
(1) Press **RUN** button, Screen display `PrUn` , Strat PATTERN curise, Press **RUN** again stop
it. If you not stop pattern cruise, it will continue cruise after another power on and never stop.
(2) PRESET point 247 commandcan start run PATTERN, Enable Auto Start PATTERN cruise
(3)Send Pelco RUN command one time start auto tour, Send RUN command again stop it,
If you start auto track cruise, power down and power on can not change it. you can use 4 ways
stop it.
(1) Press **RUN** button at cruise mode, Screen display `PrUn` , Stop PATTERN curise, If you
   not stop pattern cruise, it will continue cruise never stop.
(2) PRESET point 248 commandcan stop run PATTERN, Disable Auto Start PATTERN cruise.
(3) Send Pelco RUN command stop it at cruise mode.
(4)Use PRESET point 240 command can set all configuration to default,
    On default data, Auto Start PATTERN curise mode is disable.

4 Function list

Default protocol:
Protocol:Pelco-D
Bitrate:2400bps

UP DOWN LEFT RIGHT
button is controls the
movement of pan and
tilt cameras
ENTER button is a stop
key at movement,
And it also is a confirm
key when input a number
Numeric key 0 - 9 is
number input button
C button is a backspace
for number input
-/-- is a button for change
plus10 mode and normal
mode, in normal mode only
can input number 0 - 9,
in plus10 mode can input
number 0 - 255

At any mode, if you press **ESC** button,
system will go to address input mode.

Press **CAM** button go to address
input mode,Press **SHOT** button go to preset
selecting mode.It is a command of
selecting preset of your target camera,
HOME A B and **P1 - P8** is shortcut key
for preset point
PRESET is set preset point
DELECT is clear preset point
This two key need press more than 3
seconds to active it.

AUTO is go to auto cruise mode,
Another auto mode is go to
preset point 99
SPEED is set speed of movement
S1 -S4 is shortcut key for speed
S1 = 8, S2 = 40, S3 = 51, S4 = 63
FOCUS + focus far ,**FOCUS -** focus near
OPEN Iris open , **CLOSE** Iris close
ZOOM + zoom wide , **ZOOM -** zoom tele
PATTERN start / stop learn pattern,
RUN a pattern, **DISP** display software
version,**F1 - F4** user define shortcut key,
Press SHOT go to preset point 240,Screen
display **0---**, this time press**1 - 4**, if you
press 1 means setup **F1**.After this screen
will display **1---** to**4---**, this time press
number 0 to 255,means command data
of protocol,After finish this, you press
F1 to F4,PTZ Controller will send this
command you set.
SETUP set protocol and baud rate
Press **SETUP** key for 3 second,
Press **UP DOWN** key select protocol,
Press **LEFT RIGHT** key select baud rate.
F1 - F4 user define shortcut key,Press SHOT
go to preset point 240,Screen display **0---**,
this time press**1 - 4**, if you press 1 means
setup **F1**.After this screen will display **1---** to
4---, this time press number 0 to 255,means
command data of protocol,After finish this,
you press F1 to F4,PTZ Controller will send
this command youset.**SETUP** set protocol
and baud rate Press **SETUP** key for 3 second,
Press **UP DOWN** key select protocol,
Press **LEFT RIGHT** key select baud rate.