

NUVICO®

EASY ***TRAK™*** ***mini***



HIGH RESOLUTION
PTZ Dome Camera

MP-0V22N (NTSC)

MP-0V22P (PAL)

INSTALLATION MANUAL

Disclaimer

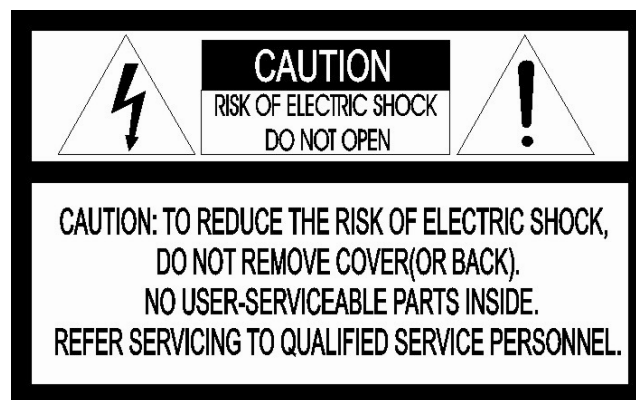
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CAUTION!



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “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 is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

FCC Compliance Statement

FCC INFORMATION: 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.

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THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.
CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE Compliance Statement

WARNING

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.

Important Safeguards

- Read these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this equipment near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the equipment.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this equipment during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the equipment 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 equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
- CAUTION - THIS MANUAL IS FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.
- Use Certified/Listed Class 2 power supply transformer only.

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1. Introduction

About This Manual

Thank you for purchasing our EasyTrak™ Mini PTZ speed dome camera.

This full-featured camera comes equipped with a high resolution 1/4" Interline transfer CCD imager, which enhances low light sensitivity and provides crystal clear pictures even in challenging lighting environments. Additionally, a user-friendly on screen display (OSD) menu makes setup and programming functions simple and easy.

1.1 Key features

- Built-in optical power zoom camera with True Night Shot function
- 120 Preset positions with the individual Camera AE setup
- 4 Tours consist of Presets, Patterns, Auto Scans and other Tours can be programmed with over 150 functions and Preset locations. While moving, each Preset scan can be watched in smooth Vector Scan mode.
- 4 Auto Scans with the normal, the vector, and the random mode and the Endless Auto-Pan with 13 speed steps
- 4 Patterns (up to 200 second) and 4 Privacy Zones
- 8 Area Titles
- 1 Alarm input / 1 Alarm output (TTL ON/OFF)
- Variable speed from 0.1°/sec to 380°/sec
- Three Variable speed (SLOW, NORMAL, TURBO)
- Turbo speed is 380°/sec with **SHIFT** key pressed.
- Pan / Tilt speed is inversely proportional to the zoom ratio with the option.
- Maximum speed is 380°/sec when Preset command.
- Auto Calibration from 0.1° to 6° (Tilt range is 0° to 180°)
- Programmable user preferences (alarm, preset, title, etc.)
- 180° Digital Flip
- Up to 255 selectable camera addresses
- Multi-language Menu Display, Password Confirmation
- Function Run menu using DVR without function key (Pattern, Scan, ...)
- Built-in RS-485 receiver driver
- 24VAC
- Use Certified/Listed Class 2 power source only.

1. Introduction

1.2 Content Verification

Before installing the camera, please make sure that all of the following items are included in the box.

EasyTrak™ Mini PTZ Dome Camera	1
Instruction Manual (This document)	1
Mounting Template Sheet	1
Mounting Bracket	1
Safety Lanyard	1

Mounting Kits

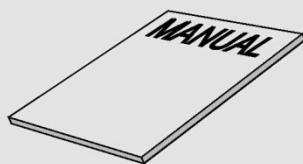
1) Mounting screws (PH6 x 35.0)	(4)
2) Plastic anchors	(4)
3) O-Rings	(4)
4) Torx wrench	(1)

Accessory Connectors

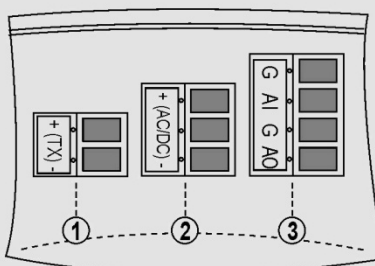
1) 2Pin Terminal Block	(1)
2) 3Pin Terminal Block	(1)
3) 4Pin Terminal Block	(1)



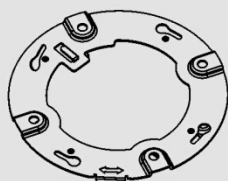
Dome Camera



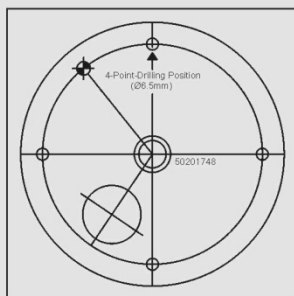
Manual



Accessory connector



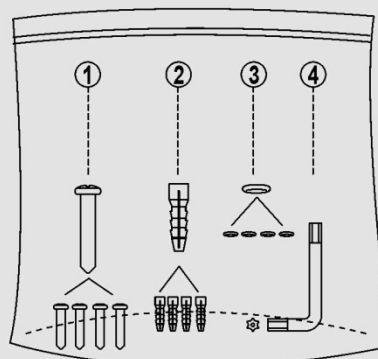
Mounting Bracket



Template sheet



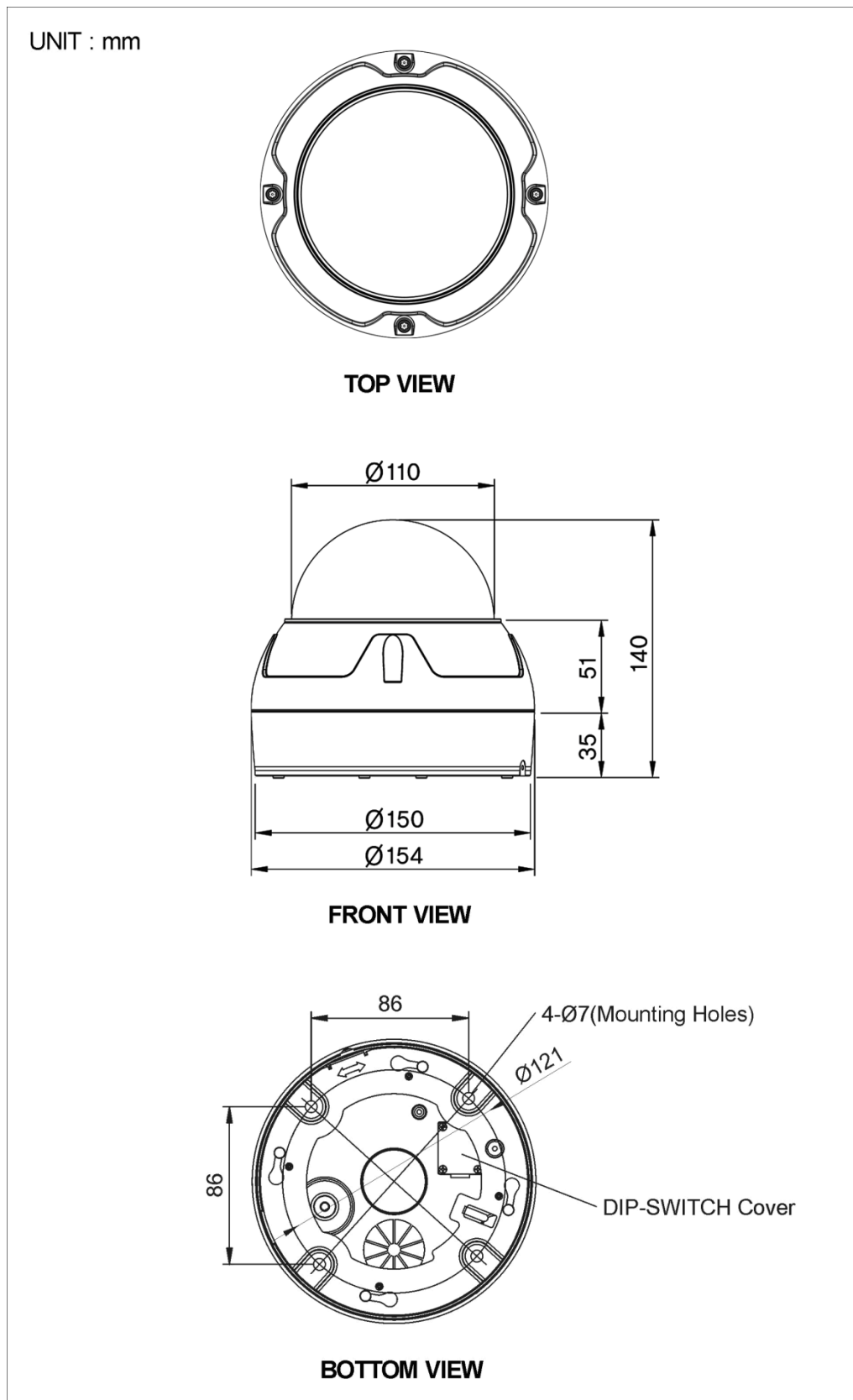
Safety Lanyard



Accessory kit

1. Introduction

1.3 EasyTrak™ Mini PTZ Dome Camera Dimensions

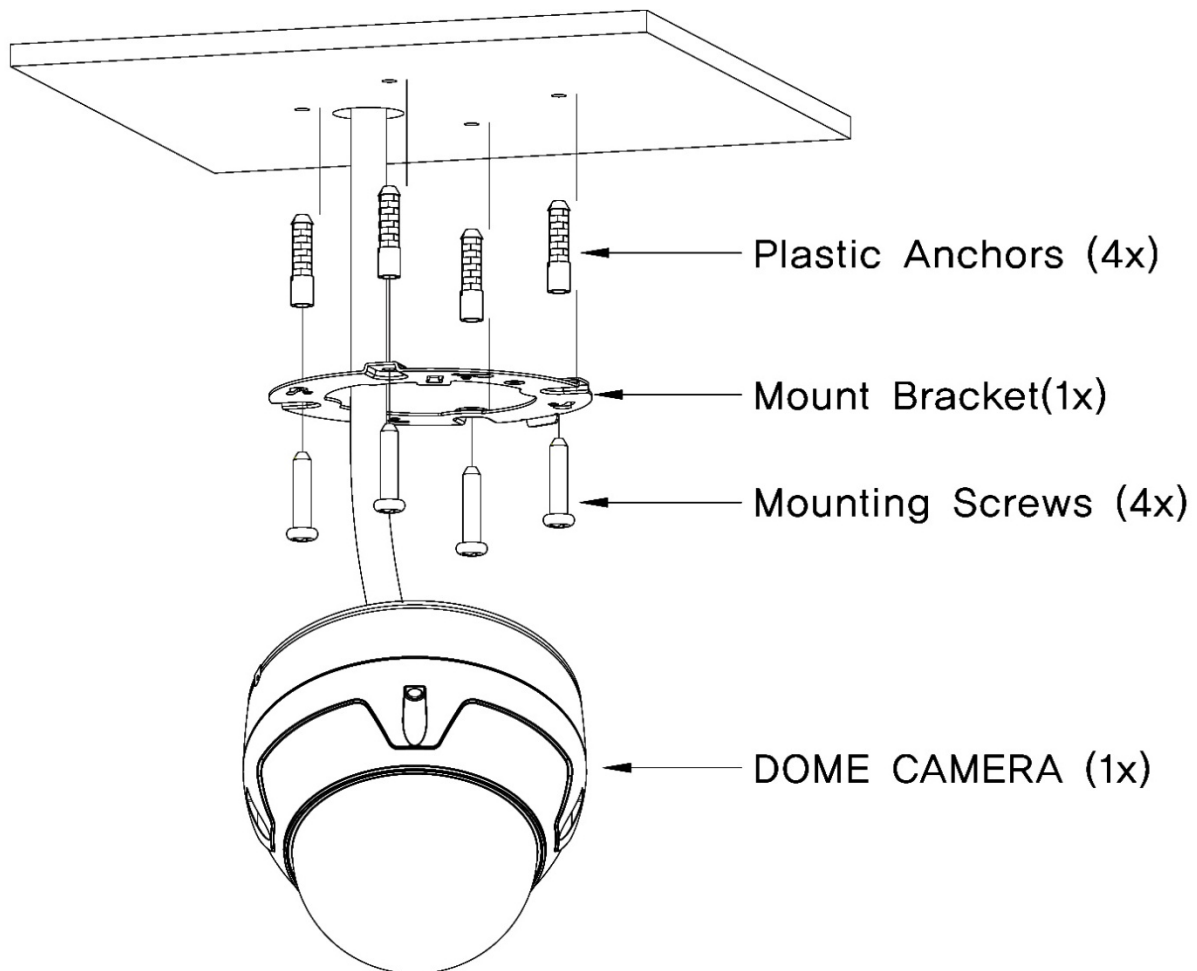


2. Installation and Configuration

2.1 Installation

The dome camera is for use in surface or pendent mounting applications and the mounting member must be capable of supporting loads of up to 3.3lb (1.5kg). (Pendent mounting must use pendent mount accessory.)

The dome camera's mounting bracket should be attached to a structural object, such as ply wood, wall stud or ceiling rafter that supports the weight of the dome camera.



2. Installation and Configuration

2.2 Locking Dome Camera

- Make screw holes on the ceiling using the supplied mounting Template Sheet (Figure A).
- Fix the Mounting Bracket using Anchors(4x) and Mounting Screws(4x) to the ceiling (Figure B).
- Hook up the Safety Lanyard to the Safety Lanyard Hook of the Mounting Bracket (Figure C).
- Align the locking tap on the bracket and the locking slot on the base of the dome (Figure D).
- Turn the dome to the counterclockwise about 10 degree to the locked position (Figure E).

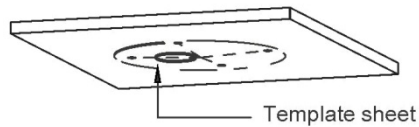


Figure A

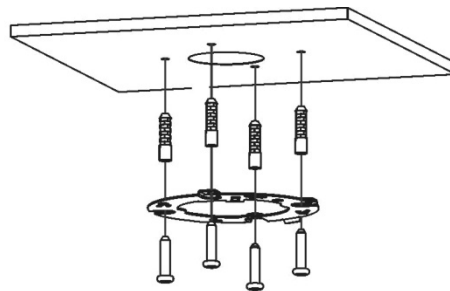


Figure B

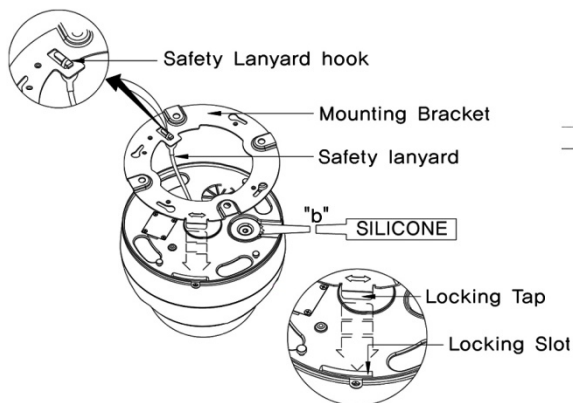


Figure C

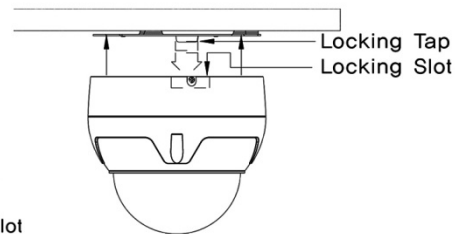


Figure D

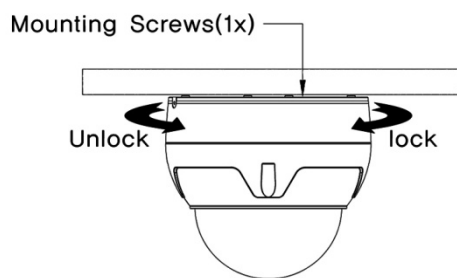


Figure E

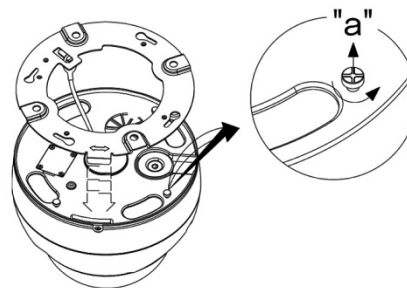


Figure F

2. Installation and Configuration

CAUTION 1:

- Before installing mounting bracket to surface, pre-adjust the four mounting screws "A" (Figure F) on the base of the dome camera to best match the mounting bracket locked position.
- Unscrew the locking screw on the side of the dome's base and fit the tab of the mounting bracket into the locking slot.
- Screws "A" (Figure F) should not be too tight or too loose when the dome is in the locked position. After setting the proper positions of screws "A" (Figure F), remove the mounting bracket and install it to the proper surface.
- If it is too difficult to lock the dome in position after the mounting bracket has been installed readjust the screws "A" (Figure F) by unscrewing them slightly. Then, try installing the dome camera again.

CAUTION 2:

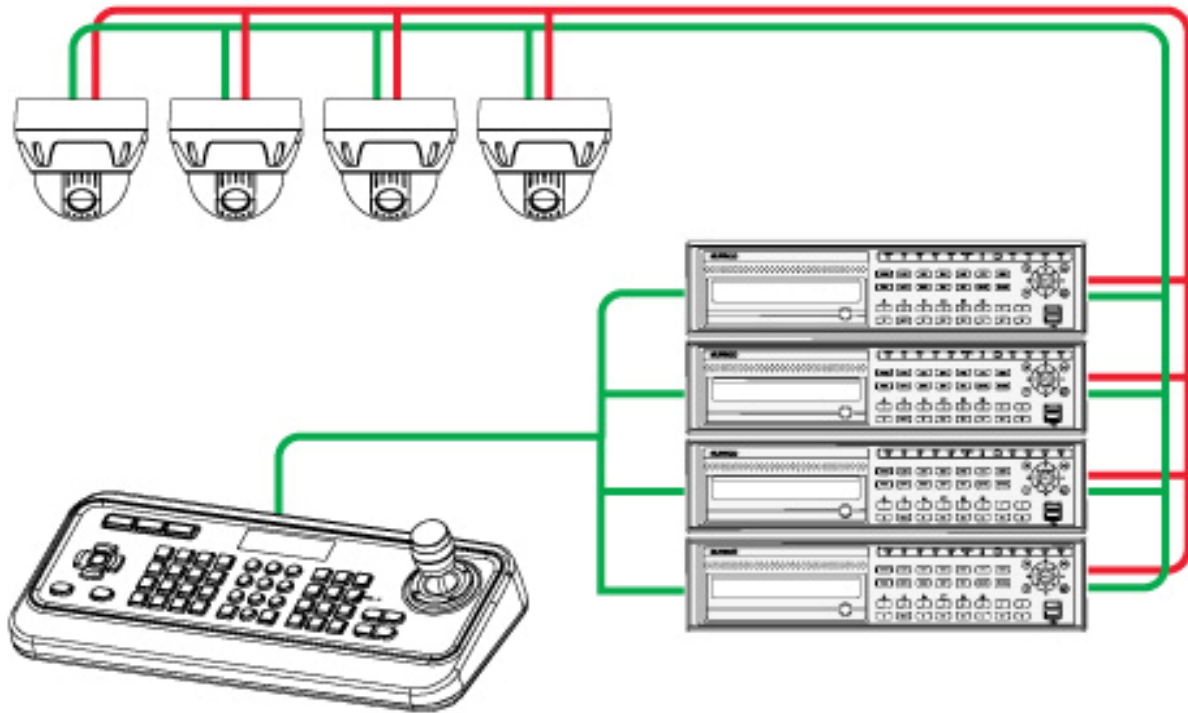
Set the termination and ID address of the dome before final installation as described at section 2.

2. Installation and Configuration

2.3.1 Typical System Configuration

Additional Controller Keyboard and a variety of external switching devices such as Multiplexers (MUXes) and Digital Video Recorders (DVRs) may be incorporated to accommodate the needs from a small to a large surveillance/security system.

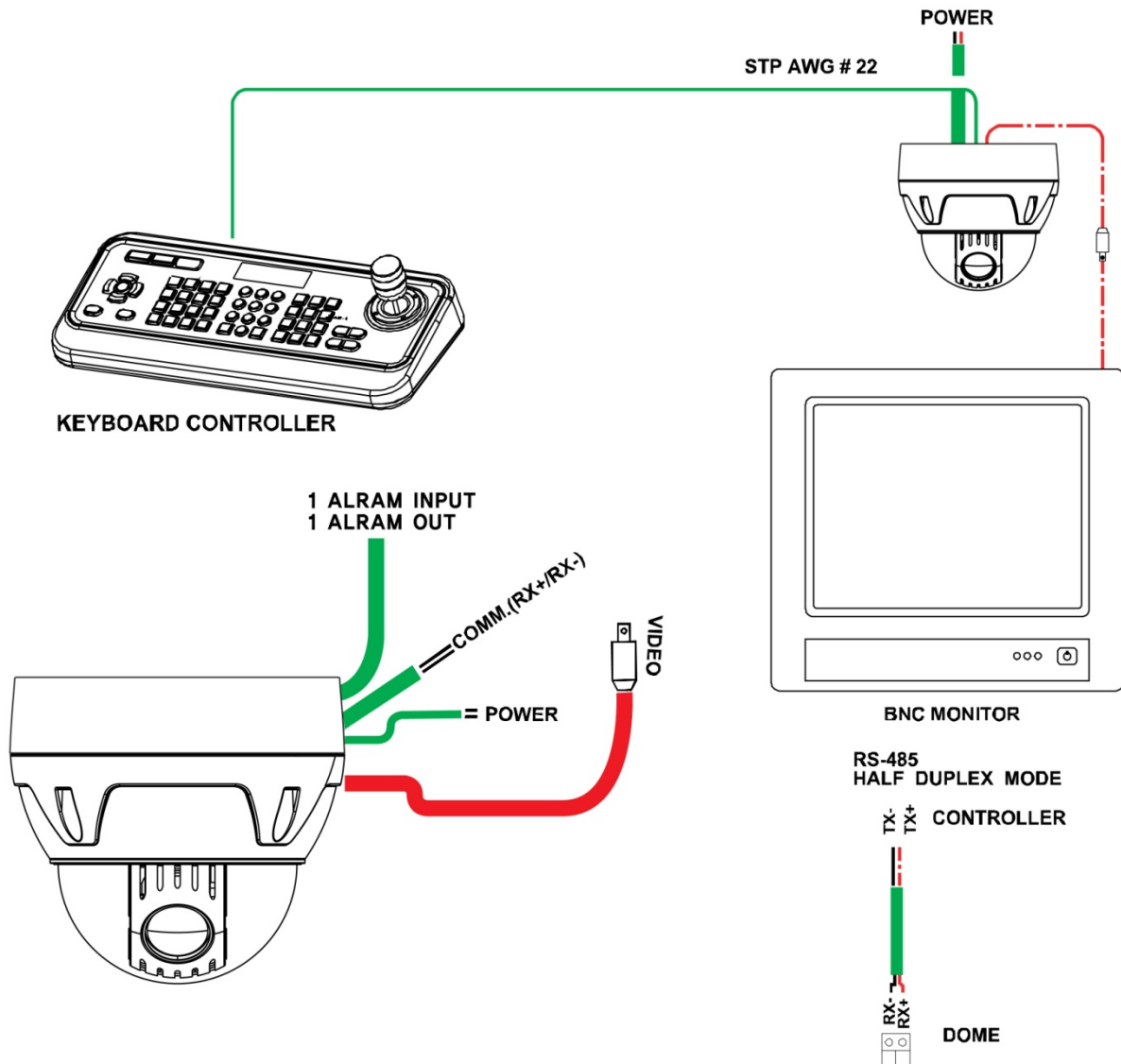
Figure 1: Illustrates Sample Installation Configuration.



2. Installation and Configuration

2.3.2 Basic Configuration of EasyTrak™ Mini PTZ Dome System

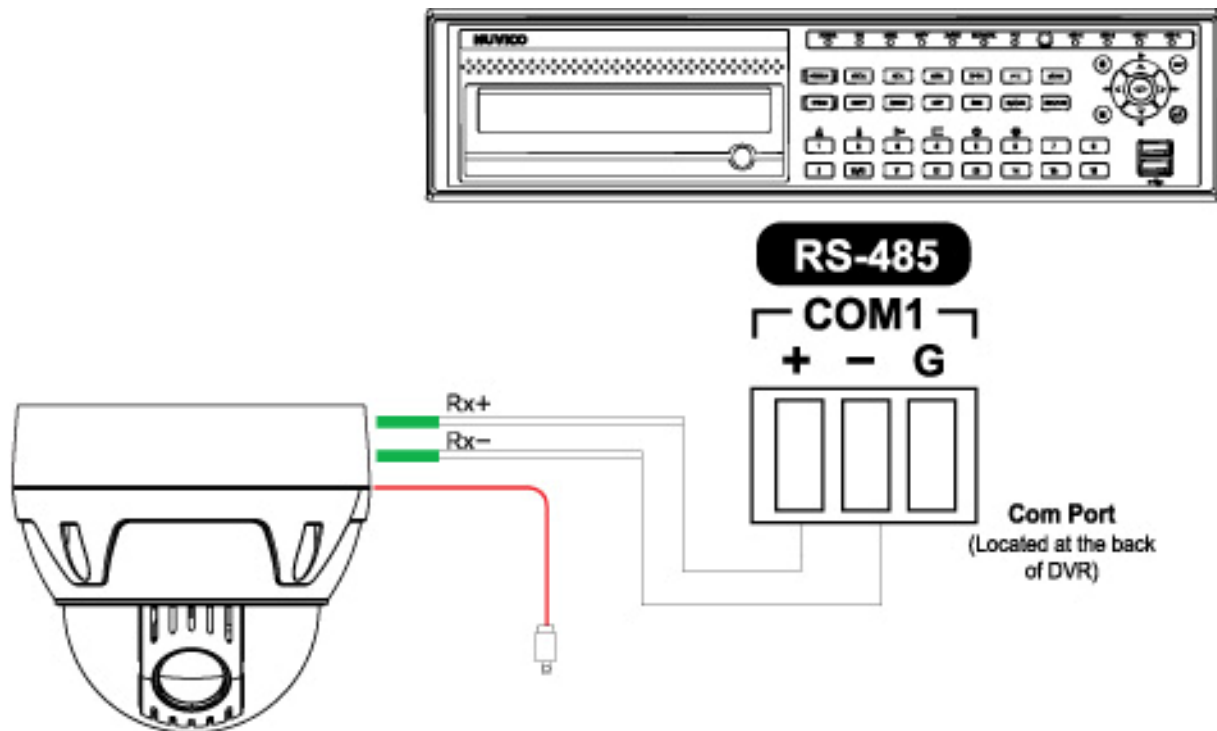
Figure 2 Illustrates the Basic Installation Configuration.



2. Installation and Configuration

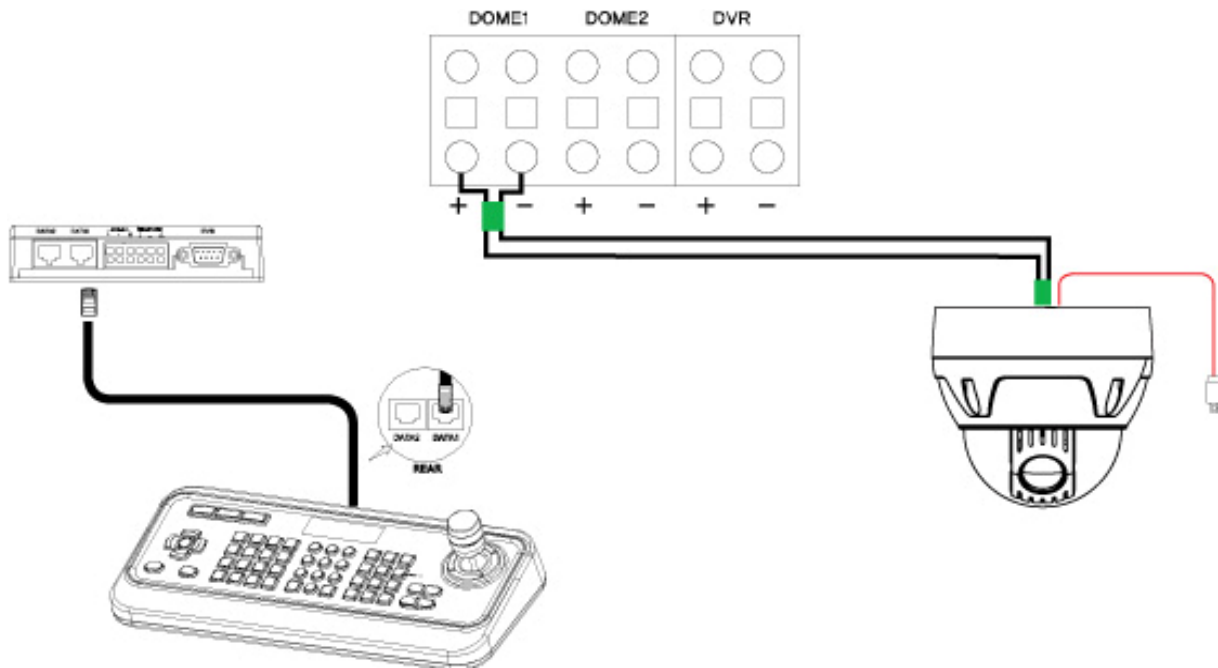
2.3.3 Connecting the EasyTrak™ Mini PTZ Dome Directly to the DVR

Locate the RS-422 Rx+ & Rx- conductor wire from the EasyTrak™ Mini PTZ dome camera. Connect the RS-485 Tx(+)/ Tx(-) of the DVR into Rx(+)/Rx(-) of the Mini PTZ dome camera.



2. Installation and Configuration

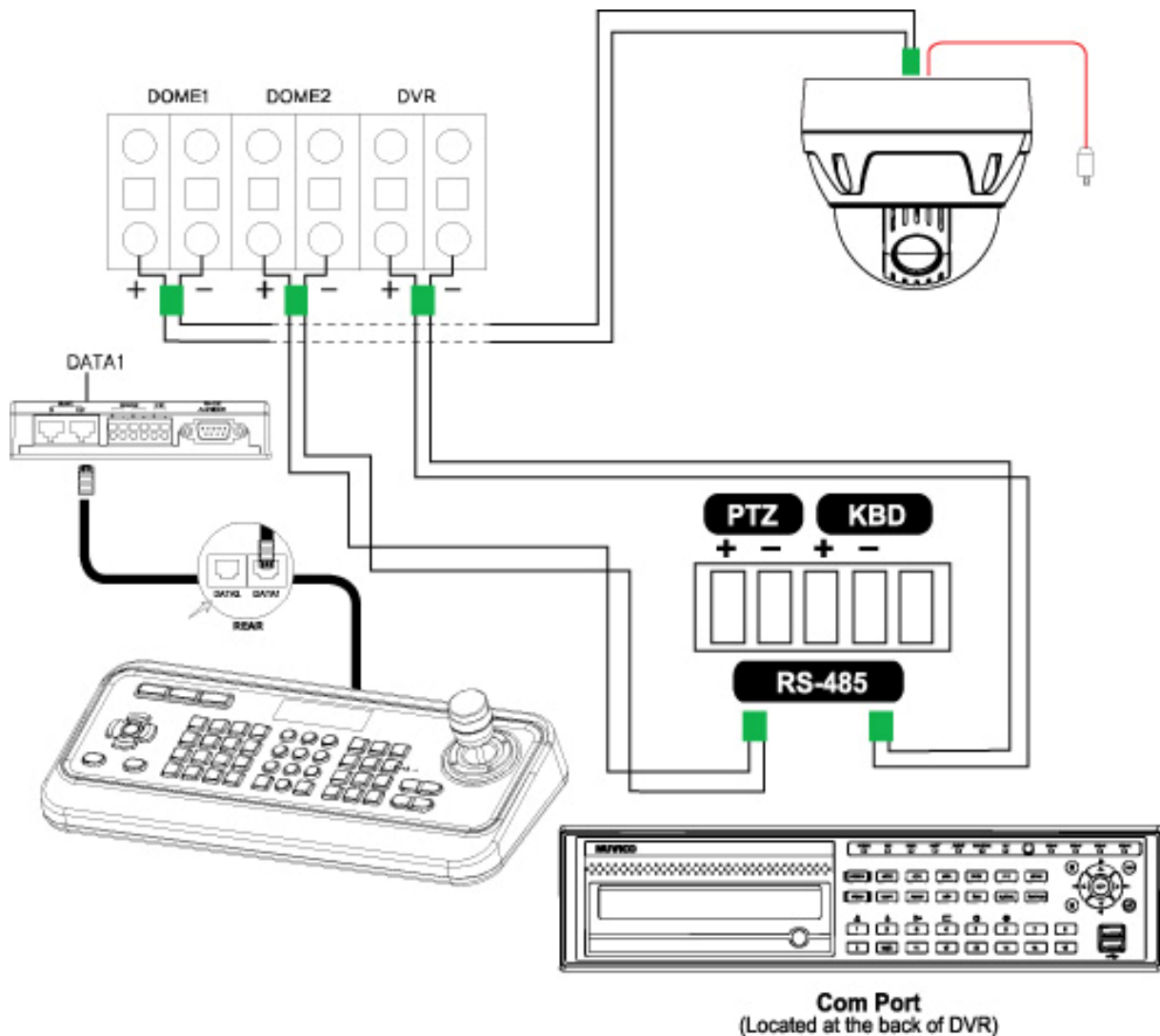
2.3.4 Connecting the EasyTrak™ Mini PTZ Dome into the Controller Keyboard via J-box



2. Installation and Configuration

2.3.5 Connecting the EasyTrak™ Mini PTZ Dome to the DVR via J-box

Illustration below shows connecting EasyTrak™ Mini PTZ dome & DVR into the Controller Keyboard.



2. Installation and Configuration

2.4 Dip Switch Layout Diagram

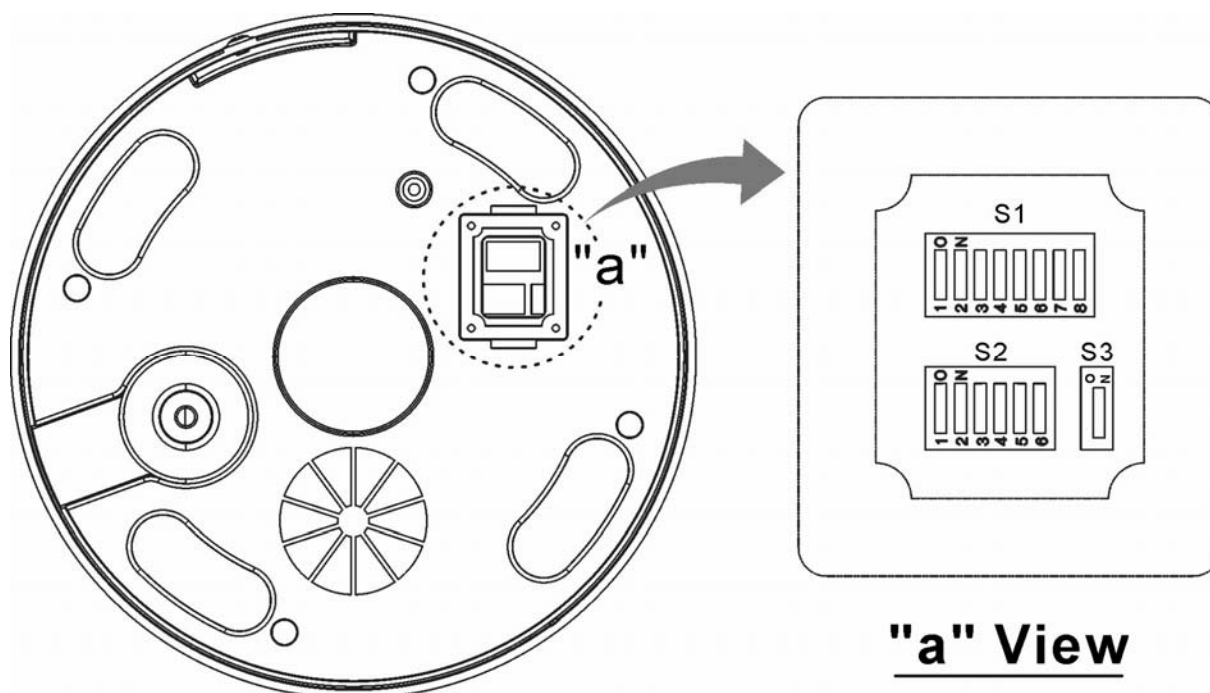
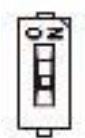


Illustration – Layout of DIP Switches

NOTE: Open the switch cover (position “a”) and change the setting of DIP switches.
The cover should be closed after setting DIP switches.

2.4.1 Setting Dome Camera Termination

The device which is connected at end of line, whether it is a dome camera or keyboard controller, must have the cable for communication terminated by setting the appropriate DIP switch. Without proper termination, there is potential for control signal errors. Total length of the cable for communication should not exceed 4000ft (1.2km).



S3

S3	D1
Terminated	ON
Not terminated	OFF

Illustration – Setting Dome Camera Termination

2.4.2 Setting Dome Camera Address (ID)

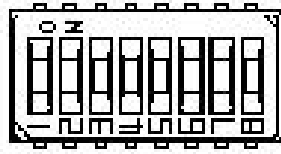
To prevent damage, each dome camera must have a unique address (ID).

When installing multiple dome cameras using a DVR, it is suggested that the dome camera address match the DVR port number.

The factory default setting is 1.

Refer to illustration below for setting the dome camera address (ID).

2. Installation and Configuration



S1

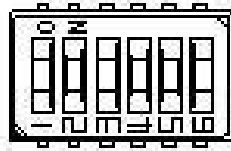
DOM E ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF

For ID 33~255, please contact our technical support.

2. Installation and Configuration

2.4.3 Setting Dome Camera Protocol and Video

If a dome camera is to be installed with the keyboard controller, select the default protocol. Consult service personnel if a dome camera is installed with device other than a keyboard controller.



S2

You can set video type with dip switch.
Select video type with D1 in S2.

S2-D1	Video type
OFF	NTSC
ON	PAL

America: NTSC

Europe, Middle East, Africa: PAL

You can set Protocol with dip switch D2, D3 and D4 in S2.

S2			Protocol
D2	D3	D4	
OFF	OFF	OFF	DEFAULT: NUVICO, Pelco-P, Pelco-D
OFF	ON	ON	Pelco-P, Pelco-D Only

You can set Baud Rate with dip switch D5 and D6 in S2.

S2		Baud Rate
D5	D6	
OFF	OFF	2400 bps
OFF	ON	4800 bps
ON	OFF	9600 bps : DEFAULT
ON	ON	19200 bps

Illustration – Video type, Protocol, Baud rate Selection Switches

2. Installation and Configuration

2.5 Connections

- Connecting to the RS485

The dome camera can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 half-duplex serial communications signals.

- Connecting Video out connector

Connect the video out (BNC) connector to the monitor or video input.

- Connecting Alarms

AI (Alarm Input)

You can use external devices to signal the dome camera to react on events. Mechanical or electrical switches can be wired to the AI (Alarm In) and G (Ground) connectors. See Section 3.7 — Program and Operation for configuring alarm input.

G (Ground)

NOTE: All the connectors marked G or GND are common.

Connect the ground side of the alarm input and/or alarm output to the G (Ground) connector.

AO (Alarm Output)

The dome camera can activate external devices such as buzzers or lights. Connect the device to the AO (Alarm Out) and G (Ground) connectors.

See Section 3.7 — Program and Operation for configuring alarm output.

- Connecting the Power

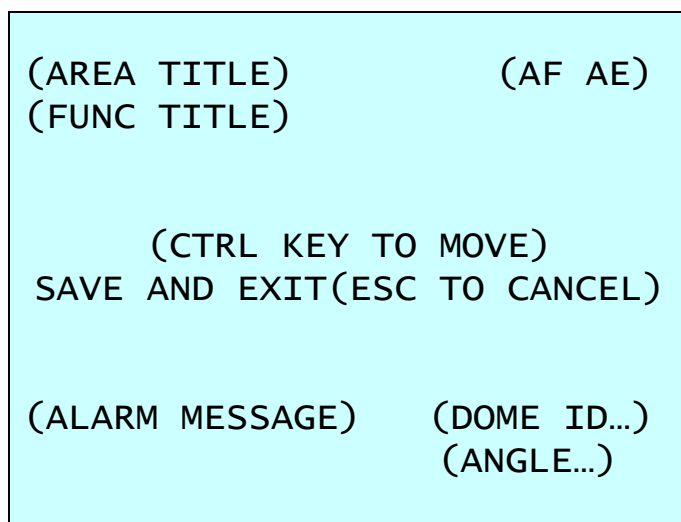
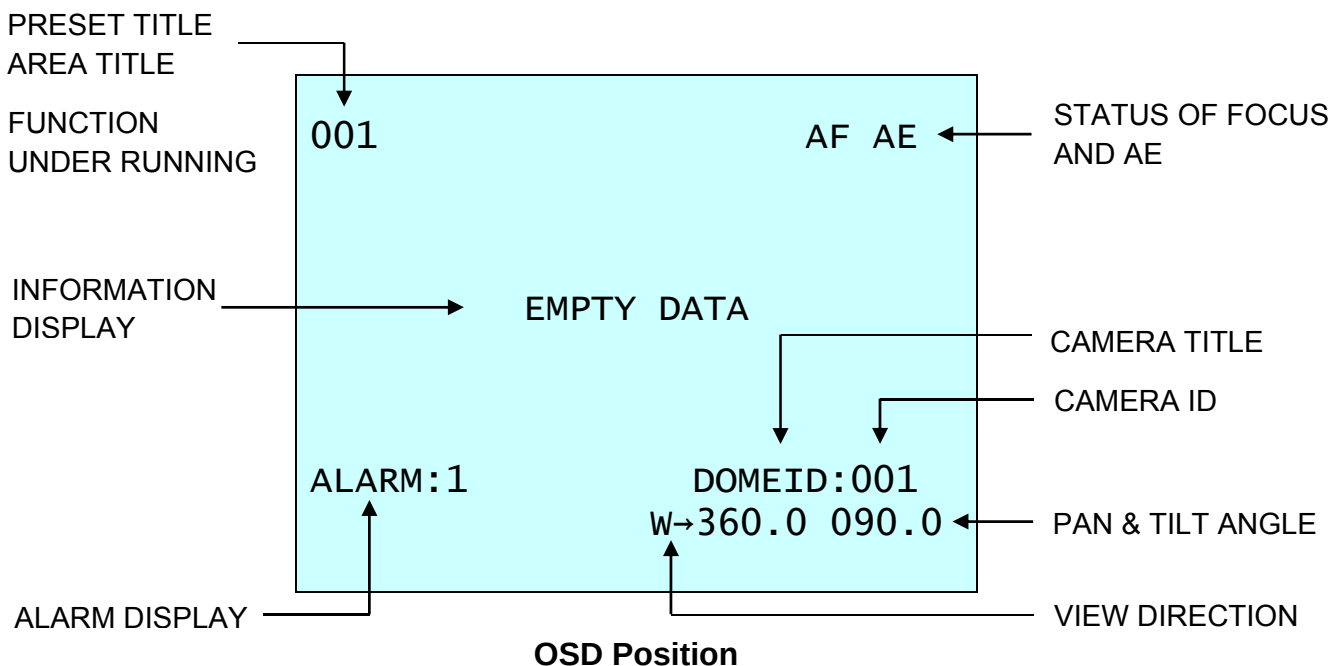
Connect the power of 24VAC for the dome camera.

Use Certified/Listed Class 2 power source only.

2. Installation and Configuration

2.6 Power On & Boot-Up Sequence

When the EasyTrak™ Mini PTZ camera is powered up, it will automatically start the boot-up sequence. The following information is displayed once the boot-up sequence is complete.



3. Program and Operation

Prior to programming or operating the EasyTrak™ Mini PTZ dome camera, please make sure that both the camera and the Controller Keyboard is communicating. In order for changes to take effect, particular dome camera's ID must be selected on the controller.

Example: Press [1] then [6] then [CAM] key sequentially will select camera 16. The selected camera ID will be displayed on the LCD of the controller keyboard.

Principle of joystick usage in the programming (editing) mode is displayed below.

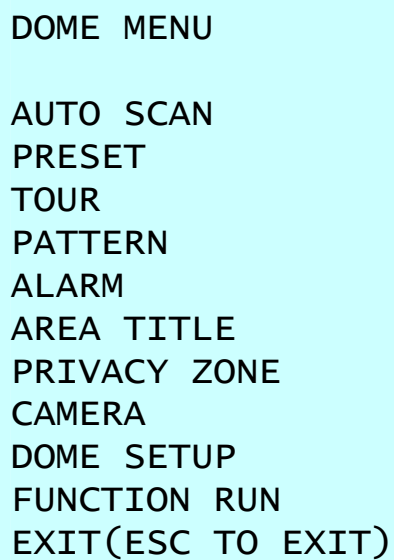
Function	Key
Call the On-screen menu utility.	MENU
Navigate through the menu items.	Joystick up or down
Go into the sub-menu items.	Joystick left or right or IRIS Open
Change value. Enter the editing title mode.	Joystick left or right or Zoom handle twist or Tele , Wide
Change value of angle.	SHIFT + Joystick
Enter the changing angle mode.	IRIS Open
Exit the changing angle mode.	IRIS Close
Escape (EXIT)	ESC

IMPORTANT: This section covers the programming of EasyTrak™ PTZ dome camera when directly connected to the NUVICO Controller Keyboard. For programming using only the DVR, please refer to your DVR manual.

3. Program and Operation

3.1 Accessing the On-Screen Dome Menu

You can call up the On-screen menu utility on your monitor by pressing the **MENU** key on the keyboard controller, the following On-screen menu utility will appear:

A light blue rectangular box with a black border containing the following text:

DOME MENU

AUTO SCAN
PRESET
TOUR
PATTERN
ALARM
AREA TITLE
PRIVACY ZONE
CAMERA
DOME SETUP
FUNCTION RUN
EXIT(ESC TO EXIT)

3. Program and Operation

3.2 Auto Scan (Shortcut: SCAN)

The Auto Scan supports up to 5 programmed angles at user-programmable speeds. Follow these steps to program the Auto Scan:

```
AUTO SCAN SETUP

NUMBER      : 01
TITLE       : A01
MODE        : NORMAL
SPEED       : 5 STEP
START ANGLE : -----
END ANGLE   : -----
SCAN DIR    : CCW
SWAP        : OFF
DWELL       : 03 SEC
SAVE AND EXIT(ESC TO CANCEL)
```

- **NUMBER:** 01 ~ 04, 17: AUTO PAN mode
- **TITLE:** up to 12 characters
- **MODE:** NORMAL, VECTOR, RANDOM (AUTO PAN mode: NORMAL, RANDOM only)
- **NORMAL:** Move from start point to end point in panning mode only.
- **VECTOR:** Move from start point to end point in simultaneous tilt & zoom mode and in linear direction.
- **RANDOM:** Move randomly between the start point and the end point.
- **SPEED:** 1 ~ 13 step, the lower number indicates the slower speed.
- **SCAN DIR:** Set the Scan direction, CCW(Counter Clock Wise), CW(Clock Wise).
- **SWAP:** Swap the start point for the end point.
- **DWELL:** Set the dwell time at the both end, 01 ~ 99 seconds.

3. Program and Operation

1. Press the **SCAN** key to enter the Auto Scan menu directly. Or press the MENU key to display the main menu on the monitor. Scroll to Auto Scan and push the Joystick to the right.
2. Select "NUMBER" and set the desired number by pushing the Joystick to the left or right.
3. Select "TITLE" and twist the Joystick to enter the title edit mode.
4. Twist the Joystick by changing the alphanumeric characters and move the next position. Or move down to the character table and press the **SHIFT** or **IRIS Open** key on the desired character then the cursor position moves to the next position automatically. Push the Joystick to the left or right at the "ALL DELETE" field to delete all characters. Push the Joystick to the left or right at the "EXIT" field to finish title edit menu.

```
TITLE EDIT MENU

A01
*
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 0 1 2 3
4 5 6 7 8 9 ( )
ALL DELETE
EXIT(ESC TO EXIT)
```

5. Select "MODE" and "SPEED".
6. Select "START ANGLE". Hold down the **SHIFT** key while selecting the start position using the Joystick. Current panning position will be displayed. Release the **SHIFT** key to complete the selection of the start position. Or press the **IRIS Open** key, then the "CTRL" displays. Move to the desired position and the zoom position. Press the **IRIS Close** key then the "CTRL" disappears. To adjust at the 0.1 degree interval, twist the Joystick at the pan field and the tilt field. To adjust at the one zoom interval, twist the Joystick at the zoom field.

3. Program and Operation

7. Select "END ANGLE". Hold down the **SHIFT** key while moving the Joystick to select the end position. The end position angle should be larger than start position. Release the **SHIFT** key to complete the selection of the end position. Or press the **IRIS Open** key then the "CTRL" displays. Move the desired position and the zoom position. Press the **IRIS Close** key then the "CTRL" disappears. To adjust at the 0.1 degree interval, twist the Joystick at the pan field and the tilt field. To adjust at the one zoom interval, twist the Joystick at the zoom field.
8. Set "SCAN DIR" to CCW or CW.
9. Select "SWAP", Set to ON, to exchange the start angle and the end angle.
10. Set "DWELL TIME".
11. Select "SAVE AND EXIT" and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: Pressing the **HOME** key deletes stored data at the angle field.

3. Program and Operation

To set the position using the Preset position:

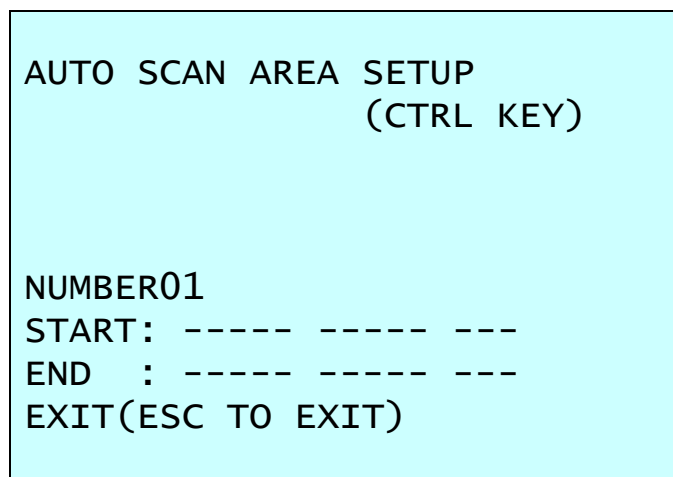
- a. Before entering the Auto Scan menu, select a Preset position as a starting point for Auto Scan.

Example: **2** + **PRST** key and do step 1 to 5 from the above. In step 6, just press the **SHIFT** key at the start angle position, the current position will be displayed as a start position.

- b. Save and exit from the menu.

- c. In normal mode, call a Preset to be the end point of Scan. Press **3** + **PRST** key then press the **SCAN** key to enter the Auto Scan menu. Move the cursor position to END ANGLE. Just press the **SHIFT** key at the end angle position. Save and exit from the menu.

Press the **SCAN** key on the angle field to display with the small OSD. Then the screen will show as below.



The setting procedure is the same as above.

NOTE: 17: AUTO-PAN mode (Endless panning)

3. Program and Operation

3.3 Preset (Shortcut: PRST)

If you need to view specific places routinely, you should program Presets. A Preset is a programmed video scene with automatic pan, tilt, zoom, focus, motion and AE settings. Once programmed, placing the number position and pressing the **PRST** key on your controller calls up that Preset automatically. In addition, Presets may be assigned to alarm action or as the “Home” position for the dome camera. As many as 120 Presets, whose positions are saved in the dome’s firmware, may be programmed.

There are two pages of Preset menu. Each page has 60 Presets. Pages can be scrolled by pushing the Joystick to the left or right on the first or last No. of Preset.

```
PRESET SETUP

NUMBER    : 001
TITLE     : ---
CAMERA SET
DWELL     : -- SEC
12345678901234567890
00 ■**-----
02 -----
04 -----
NEXT PAGE
SAVE AND EXIT(ESC TO CANCEL)
```

- : blank Preset position
- * : position has the Preset
- : current cursor position

3. Program and Operation

Follow steps below to store the Preset positions:

1. Press the **PRST** key to enter the Preset menu directly. Or press the **MENU** key to display the main menu on the monitor. Scroll to Preset and push the Joystick to the right.
2. Select the blank Preset position to be stored by pushing the Joystick up, down, right, or left.
3. After selecting a blank position, press and hold the **SHIFT** key. Use the Joystick to control the direction of the camera and lens.
4. After aiming the camera (view direction and lens control), release the **SHIFT** key. The cursor will be on the "TITLE" after saving data then twist the Joystick or press the **Tele** or **Wide** key to edit the Preset title. Follow the procedure of the Auto Scan above to edit titles.
5. Select "CAMERA SET" and pushing the Joystick to the left or right. Then the Preset camera setup displays.

```
PRESET CAMERA SETUP

FOCUS          : AUTO
MOTION         : OFF
MOTION SETUP
AE SETUP
SAVE AND EXIT(ESC TO CANCEL)
```

Set **FOCUS** : AUTO, MANUAL, ONE PUSH
Set **MOTION** : OFF, ON

3. Program and Operation

Select "MOTION SETUP" and pushing the Joystick to the left or right. Then the MOTION setup displays.

MOTION SETUP

SENSITIVITY : 07
POSITION : ALL
DELAY : 00 SEC
OUTPUT : OFF
HOLD TIME : 03 SEC
EXIT (ESC TO EXIT)

Set **SENSITIVITY** : 01 ~ 10
Set **POSITION** : ALL, CENTER
Set **DELAY** : 0 ~ 05 SEC
Set **OUTPUT** : OFF, ON
Set **HOLD TIME** : 03 ~ 99 SEC

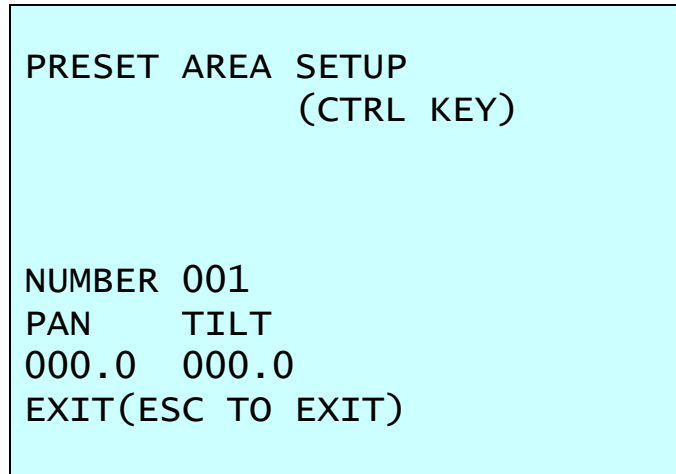
Select "AE SETUP" and pushing the Joystick to the left or right. Then the AE setup displays. Refer to the AE SETUP in the camera setup.

6. Set "DWELL TIME". (03 ~ 99 seconds)
7. To select the next page of Presets, scroll the page by pushing the Joystick to the left on the first and last columns of the menu.
8. Repeat step 2 through 7 for each additional Preset position.
9. Select "SAVE AND EXIT" and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: Press the **HOME** key at programmed Preset position(*) to delete a programmed Preset view.

3. Program and Operation

The position, which is marked with the *, already has the Preset view assigned. To review the stored Preset, press the **PRST** key on the *. The camera will show the stored Preset scene.



Hold down the **SHIFT** key while selecting the desired scene using the Joystick. Current position will be displayed. Release the **SHIFT** key to complete. Or Press the **IRIS Open** key then the “CTRL” displays. Move the desired position and the zoom position. Press the **IRIS Close** key then the “CTRL” disappears. Select “EXIT” and push the Joystick to the right.

3.4 Shortcut of Preset Program

After selecting the desired scene, press Number (1 to 120), and press the **SHIFT** and **PRST** keys subsequently. The current view will be stored to the selected Preset number if the Preset number is empty. If selected Preset number is not empty, “OVER WRITE” message will be displayed on the monitor and select the “OK” and push the Joystick to the right to overwrite.

Example: **1** , **0** , **1** + **SHIFT** + **PRST** keys will store current view as Preset no. 101. In this case, focus will be programmed as Auto, dwell time will be set to 3 second, and the current AE mode will be programmed.

3. Program and Operation

3.5 Tour (Shortcut: TOUR)

There are 4 programmable Tours. Each Tour consists of up to 42 Preset positions, Patterns, Scans or other Tours (second-level). Using second-level Tours, it can be expanded to over 150 functions in a single Tour.

```
TOUR SETUP
NUMBER      : 01
TITLE       : T01
SCAN TYPE   : NORMAL
SPEED       : 5 STEP
DWELL       : -- SEC
003 A04 --- --- --- --- ---
--- --- --- --- ---
--- --- P01 --- --- ---
--- T02 --- --- --- ---
--- --- --- --- ---
--- --- --- --- ---
SAVE AND EXIT(ESC TO CANCEL)
```

--- : blank position
SCAN TYPE : NORMAL, VECTOR
DWELL : 03 ~ 99 SEC
003 : Preset (1 ~ 120)
A04 : Auto Scan (1 ~ 4)
P01 : Pattern (1 ~ 4)
T02 : Tour (1 ~ 4)

3. Program and Operation

Follow the steps below to program the Tours:

1. Press the **MENU** key to display the main menu on the monitor. Scroll to Tour and push the Joystick to the right to enter the Tour menu. Or just press the **TOUR** key on the keyboard.
2. Select "NUMBER" and set the desired number by pushing the Joystick to the left or right.
3. Choose a blank position to be programmed by pushing the Joystick up, down, right, or left.
4. To add a stored Preset, twist the Joystick then the stored Preset number displays.
5. To place functions other than Preset, press the **TOUR**, **PTRN**, or **SCAN** keys for Tour, Pattern or Auto Scan respectively.
6. You can also overwrite the programmed number and to remove a stored number from the Tour, press the **HOME** key on the stored number, a blank position mark (---) will be displayed.
7. Repeat step 2 through 5 for each desired position. Each title will be displayed on top of the line.
8. To edit the "TITLE", follow the procedure of the Auto Scan above to edit titles.
9. Select "SAVE AND EXIT" and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: The speed applies in the vector mode only.

NOTE: In the Tour mode, in conjunction with Preset and Auto Scan, you can make the camera travel from a Preset position to another Preset position at a specific speed.

Example: Preset 001>002>003>004>005>006, Auto Scan 01 starts at Preset 002, ends at Preset 003, Auto Scan 02 starts at Preset 005, ends at Preset 006; Tour 001, 002, A01, 004, A02.

1 → 2 2~3 → 4 → 5~6, repeat

where → : Quick move, ~ : Programmed speed

3. Program and Operation

To change the dwell time of the Preset in the Tour:

1. Use the Joystick to move the cursor to a stored Preset position.
2. By pressing the **PRST** key, the camera will move to the stored Preset view and the cursor moves to the dwell time field.
3. After changing the dwell time, press the **PRST** key and the cursor moves to the Preset number.

To assign the functions other than Preset in the Tour when the function key does not exist:

1. Use the Joystick to move the cursor to a stored Preset position.
2. Pressing the **SHIFT** or **IRIS Open** key will change the Preset number to other function (Auto Scan, Pattern, Tour, Preset) with the first programmed number.
3. To change the number, twist the Joystick or press the **Tele** or **Wide** key.

3. Program and Operation

3.6 Pattern (Shortcut: PTRN)

The Pattern feature records user control of the selected dome camera. Up to 4 Patterns can be stored and played back by pressing **No.** + **PTRN** keys subsequently.

PATTERN SETUP (CTRL KEY)			
NO	TITLE	SEC	PERCENT
01 :	P01	000	00.0%
02 :	P02	000	00.0%
03 :	P03	000	00.0%
04 :	P04	000	00.0%
TOTAL		0000	00.0%
SAVE AND EXIT(ESC TO CANCEL)			

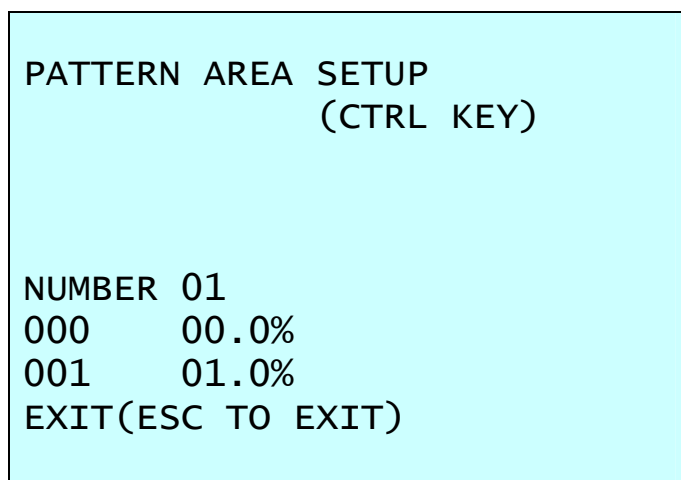
Follow steps below to program the Pattern:

1. Press the **MENU** key to display the main menu on the monitor. Scroll to Pattern and push the Joystick to the right to enter the Pattern menu. Or just press the **PTRN** key on the keyboard.
2. Select the desired Pattern to be programmed by pushing the Joystick up or down. If the Pattern is not 000, a Pattern has already been recorded. Patterns can be overwritten.
3. Press and hold down the **SHIFT** key while controlling the camera direction and zoom with the Joystick. The dome will be automatically recorded until you release the **SHIFT** key. Or press the **IRIS Open** key then the "CTRL" displays. Move the position and the zoom position. Press the **IRIS Close** key then the "CTRL" disappears.
4. To edit the "TITLE", follow the procedure of the Auto Scan above to edit titles.
5. Select "SAVE AND EXIT" and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

3. Program and Operation

NOTE: Press the **HOME** key at any programmed position to delete the Pattern.

NOTE: If Pattern recording time reaches 200 seconds, it will automatically stop for a moment. Press the **PTRN** key on the title field to display with the small OSD. Then the screen will show as below.



The setting procedure is the same as above.

3. Program and Operation

3.7 Alarm

```
ALARM SETUP

NO PRI FUN IN  OUT HLD LATCH
01  1  001 NC  ON  03  OFF

ALARM OUT SETUP
SAVE AND EXIT(ESC TO CANCEL)
```

NO : alarm input number
PRI(Priority) : The lower number has higher priority. (1 fixed)
FUN(Function) : Stored function number to be called by alarm.
IN : NO/NC – normally open/closed, OFF – ignore
OUT : ON – TTL output on, OFF – No output
HLD(Hold) : Alarm will be held for programmed time. (03 to 99 seconds)
LATCH : ON – Alarm message will remain on the screen even though alarm input is deactivated.
OFF – Alarm message will disappear on the screen after programmed hold time when alarm input is deactivated.

```
ALARM OUT SETUP

OUT      : ALARM

EXIT(ESC TO EXIT)
```

ALARM: alarm output is operated during an alarm operation or by the short key of our keyboard.

1 ~ 5 MIN(minute): alarm output is operated during this setting time only by the function run of the dome menu or the short key of our keyboard.

NOTE: This 1 ~ 5 MIN setting is not operated by an alarm.

3. Program and Operation

3.8 Area Title

Enter a specific name on programmed angle between START and END. For the screen below, when the camera points at an angle between 124.3° (PAN), 30.7° (TILT) to 359.5° (PAN), 45.4° (TILT), ABC will be displayed on the screen.

AREA TITLE SETUP

```
NUMBER      : 01
TITLE       : ABC
START ANGLE : 124.3  30.7
END ANGLE   : 359.5  45.4
SWAP        : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

NUMBER : 01 ~ 08
TITLE : up to 12 characters.
SWAP : Swap the start point for the end point.

3. Program and Operation

1. Select "NUMBER" and set the desired number by pushing the Joystick to the left or right.
2. To edit the "TITLE", follow the procedure of the Auto Scan above to edit titles.
3. Select "START ANGLE". Hold down the **SHIFT** key while selecting the start position using the Joystick. Current panning position will be displayed. Release the **SHIFT** key to complete the selection of the start position. Or press the **IRIS Open** key then the "CTRL" displays. Move the desired position. Press the **IRIS Close** key then the "CTRL" disappears. To adjust at the 0.1 degree interval, twist the Joystick at the pan field and the tilt field.
4. Select "END ANGLE". Hold down the **SHIFT** key while moving the Joystick to select the end position. Release the **SHIFT** key to complete the selection of the end position. Or press the **IRIS Open** key then the "CTRL" displays. Move the desired position. Press the **IRIS Close** key then the "CTRL" disappears. To adjust at the 0.1 degree interval, twist the Joystick at the pan field and the tilt field.
5. Select "SWAP". Set to ON, to exchange the start angle and the end angle.
6. Select "SAVE AND EXIT" and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

3. Program and Operation

3.9 Privacy Zone

Hide up to 4 unwanted scenes in a camera.

PRIVACY ZONE SETUP (CTRL KEY)			
NO	TITLE		METHOD
01	ABC	ON	BLOCK
02	DEF	ON	V.OFF
03		OFF	----
04		OFF	----
SAVE AND EXIT(ESC TO CANCEL)			

1. Place the cursor at the title field.
2. Hold down the **SHIFT** key displays the privacy area menu while selecting the position using the Joystick. Current position will be displayed. Release the **SHIFT** key to complete the selection of the position. Or press the **IRIS Open** key then the privacy area menu displays. Move the desired position. Press the **IRIS Close** key then the “CTRL” disappears and returns to the previous menu.

PRIVACY AREA MENU (CTRL KEY)		
		CONTROL
NUMBER	001	
354.8	344.8	

3. Place the cursor at the “TITLE” field. Twist the Joystick to enter the title edit mode. Follow the procedure of the Auto Scan above to edit titles.
4. To turn the stored zone On or Off, twist the Joystick or press the **Tele** or **Wide** key.
5. Set the method, “BLOCK” or “V.OFF(video off)”.
6. Select “SAVE AND EXIT” and push the Joystick to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: Press the **HOME** key to delete programmed Privacy Zone at the title field.

3. Program and Operation

3.10 Camera Menu

```
CAMERA SETUP

FOCUS CONTROL
WB CONTROL
AE CONTROL
DNR CONTROL
LINE LOCK CONTROL
SHARPNESS          : 07
RESOLUTION          : MID
DIGITAL ZOOM        : OFF
IMAGE FLIP          : OFF
PRESET FREEZE       : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

- SHARPNESS** The higher the value, the more edges in the picture will be enhanced. (0 ~ 15)
- RESOLUTION** Select high resolution mode. (LOW / MID / HIGH)
- DIGITAL ZOOM** OFF: Zoom range is limited to the optical.
2X: Zoom is extendable up to 2X of digital range.
4X: Zoom is extendable up to 4X of digital range.
8X: Zoom is extendable up to 8X of digital range.
MAX: Zoom is extendable Max digital zoom range.
- IMAGE FLIP** This function turns the video output from the camera upside down and reverses it horizontally.
This option is helpful to install in the opposite side.
- PRESET FREEZE** ON: the image is frozen during calling Preset.

3. Program and Operation

• FOCUS CONTROL

```
FOCUS SETUP

MODE           : ONE PUSH
FOCUS LIMIT    : 1.0M
SAVE AND EXIT(ESC TO CANCEL)
```

MODE AUTO / MANUAL / ONE PUSH / CONSTANT MANUAL

Use "ONE PUSH" in normal use.

FOCUS LIMIT This distance is approximate value and the focus operate from the setting value.

CAUTION: Avoid continuous, 24-hour use of the "AUTO FOCUS". This will shorten the lifespan of the lens.

• WB (White Balance) CONTROL

```
WB SETUP

MODE           : AWB
R GAIN         : ---
B GAIN         : ---
SAVE AND EXIT(ESC TO CANCEL)
```

MODE AWB / WAWB / INDOOR / OUTDOOR / MANUAL

AWB Computes the white balance value output using color information from the entire screen automatically. (2500 to 9500 °K)

WAWB Wide range auto white balance mode (1800 to 10500 °K)

INDOOR Indoor white balance mode

OUTDOOR Outdoor white balance mode

MANUAL Manual mode, you can change R and B Gain manually.

RGAIN 0 ~ 255

BGAIN 0 ~ 255

NOTE: RGAIN / BGAIN modes are controllable only in MANUAL Mode.

3. Program and Operation

• AE CONTROL

```
AE SETUP

MODE                : MANUAL
DSS LIMIT           : OFF
GAIN                 : MIN
BRIGHT              : 003
SHUTTER             : 1/50
FLICKERLESS         : ---
BACK LIGHT          : OFF
WDR                  : ---
WDR LEVEL           : ---
NIGHT SHOT          : AUTO
SAVE AND EXIT(ESC TO CANCEL)
```

MODE	AE1 / AE2 / SHUTTER PRIO / MANUAL
AE1	Auto exposure mode1 (Use to normal surroundings: indoor)
AE2	Auto exposure mode2 (Use to high brightness surroundings: outdoor)
SHUTTER PRIO	Variable Shutter speed, Auto Gain
MANUAL	Variable Shutter speed, Gain
SLOW SHUTTER	ON / OFF
GAIN	MIN / LOW / MID / HIGH
BRIGHT	1 ~ 15
SHUTTER	1/50(60), 1/120(100), ..., 1/2000, 1/10000, 1/100000
FLICKERLESS	ON / OFF
BACK LIGHT	ON / OFF (NOTE: When ON, WDR will be disabled.)
WDR	ON / OFF (NOTE: When ON, BACKLIGHT will be disabled.)
WDR LEVEL	10 ~ 50
NIGHT SHOT	AUTO / ON / OFF

NOTE: Values in () are for NTSC Camera. The WDR operates in AE1 mode only.

NOTE: When BACKLIGHT set ON, incorrect focus problem might occur.

3. Program and Operation

The NIGHT SHOT option removes the IR cutoff filter of the camera and makes the camera sensitive to infrared.

AUTO Camera goes in to B&W mode at low light.

ON Camera is in B&W all the time.

OFF Camera is in Color all the time.

The operator can enable NIGHT SHOT for all dome cameras at the same time.

NOTE: AUTO in NIGHT SHOT function cannot be applied to “MANUAL” mode of AE Control.

3. Program and Operation

• DNR CONTROL

DNR CONTROL SETUP

2DNR(1) : OFF
3DNR(1) : OFF
2DNR(2) : OFF
3DNR(2) : OFF

SAVE AND EXIT(ESC TO CANCEL)

2DNR(1), 2DNR(2) Select 2D noise reduction level (1 ~ 7 / OFF)
3DNR(1), 3DNR(2) Select 3D noise reduction level (1 ~ 31 / OFF)

NOTE: DNR(1) applies to when the motor is stopped. DNR(2) applies when the motor is moving.

• LINE LOCK CONTROL

LINE LOCK SETUP

MODE : INTERNAL
PHASE : 030
SAVE AND EXIT(ESC TO CANCEL)

MODE INTERNAL / EXTERNAL
PHASE Adjusts phase of picture with other cameras in EXTERNAL mode.
(0~259 NTSC, 0~309 PAL)

3. Program and Operation

3.11 Dome Setup

```
CONFIGURATION MENU

LANGUAGE           : ENGLISH
HOME FUNCTION SETUP
OSD DISPLAY
VIEW ANGLE SETUP
INITIALIZE DATA
ORIGIN OFFSET
DOME RESET
SYSTEM MENU
SYSTEM INFORMATION
SAVE AND EXIT(ESC TO CANCEL)
```

- **LANGUAGE SETUP**

LANGUAGE : Select the language you want.

- **HOME FUNCTION SETUP**

```
HOME FUNCTION SETUP

HOME FUNCTION      : NONE
FUNCTION NUMBER    : ---
WAITING TIME       : 120 SEC
FUNCTION ENABLE    : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

HOME FUNCTION : None / Tour / Pattern / Auto Scan / Preset
FUNCTION NUMBER : - - -
WAITING TIME : 10 ~ 240 seconds
FUNCTION ENABLE : ON / OFF

3. Program and Operation

The Home function can be set so that the camera automatically goes to Tour, Pattern, Auto Scan, Preset after the keyboard controller has been idle for certain amount of time.

For example, if the controller is idle for 120 seconds, the camera goes to Preset 1.

Follow these steps to program the Home position:

1. Select "HOME FUNCTION" by pushing the Joystick to the left or right to scroll through the None, Tour, Pattern, Auto Scan or Preset functions.
2. Select "FUNCTION NUMBER" and push the Joystick to the left or right. The recorded function number will scroll.
3. Select "WATING TIME" and push the Joystick to the left or right to select from 10 to 240 seconds.
4. Select "FUNCTION ENABLE" and turn to ON or OFF by pushing the Joystick to the left or right.

3. Program and Operation

- OSD DISPLAY

```
OSD DISPLAY SETUP

CAMERA TITLE           : DOMEID
VIEW DIRECTION         : OFF
DOME OSD               : ON
AREA TITLE             : OFF
PRESET TITLE           : CONSTANT
FOCUS EXPOSURE         : ON
OSD POSITION SETUP

SAVE AND EXIT(ESC TO CANCEL)
```

CAMERA TITLE : up to 6 characters.

VIEW DIRECTION : ON / OFF

“ON” sets current direction as N(North) and the coordinate angle to 000. “OFF” hides the directional title. Every 90 degrees of clockwise rotation will change the title to E(East), S(South), W(West). If using the ON/OFF option frequently, it is recommended that you set “North” as a Preset. Recall the “North” Preset before enabling the directional title.

DOME OSD : ON / OFF

All display or title will disappear when DOME OSD DISPLAY sets OFF.

AREA TITLE : ON / OFF

If this option is enabled, the area title displays when the camera moves.

NOTE: The DOME OSD DISPLAY must be enabled.

PRESET TITLE : CONSTANT / OFF / 3, 30, 60, 120, 180 seconds

Set the Preset title display time.

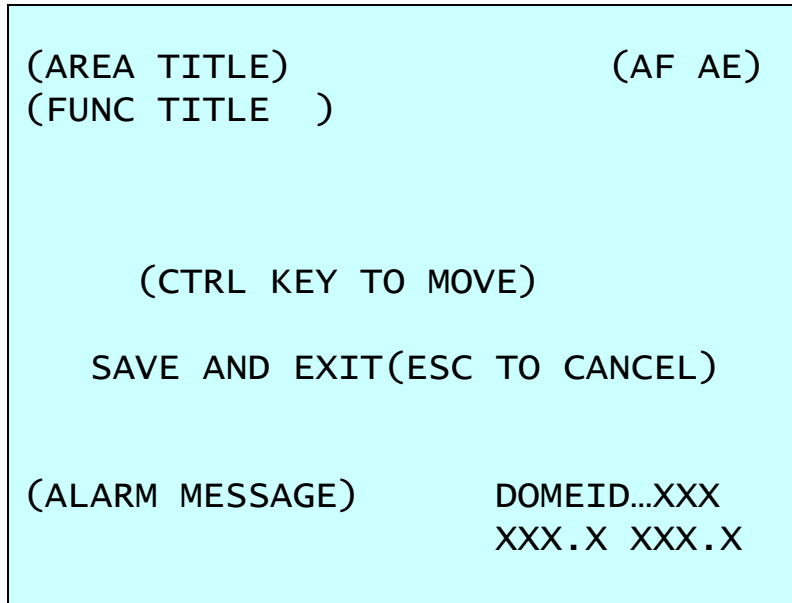
FOCUS EXPOSURE : ON / OFF

ON: FOCUS and EXPOSURE displays. (AF AE)

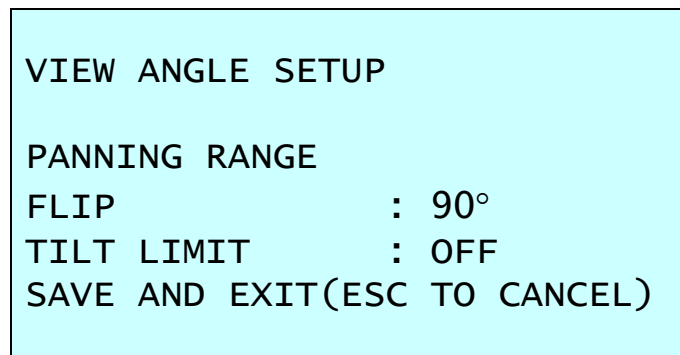
3. Program and Operation

• OSD POSITION SETUP

Select the OSD option with the Joystick up and down, press the **SHIFT** key and adjust the position by the Joystick.



• VIEW ANGLE SETUP



FLIP: OFF, AUTO, 90°, 100°, 110°, 120°,

OFF: The dome camera moves until 90° vertically.

AUTO: When the camera reaches the floor directly above the moving object, it will stop. At that time, release the Joystick instantly and pull it down again to run the auto-flip function. When you use the panning range, we recommend using the flip mode to AUTO.

90°, 100°, 110°, 120° : allows the image to flip digitally when the camera moves over the setting angle vertically.

TILT LIMIT: This option has been designed to limit the view angle as there is some obstruction in zooming out on specific area of the tilt angle.

3. Program and Operation

ON: When this option is enabled, the range of the tilt angle will be limited to 10 degree. This can prevent from obstruction or bad focus problem caused by the horizontal line of the semi sphere in the bubble.

OFF: When this option is disabled, the range of the tilt angle will not be limited.

When you zoom out within the range of the tilt angle, you will see the horizontal line of the semi sphere in the bubble.

PANNING RANGE

When the dome camera is installed near a wall, panning range can be limited by user.

```
PANNING RANGE SETUP
                        (CTRL KEY)

RIGHT LIMIT : 000.0
LEFT LIMIT  : 000.0
ENABLE      : OFF
SWAP        : OFF
AUTO PAN    : ON
SAVE AND EXIT(ESC TO CANCEL)
```

1. Place the dome camera under 90 degree vertically.
2. Set "RIGHT LIMIT" by pushing the Joystick to the right.
3. Set "LEFT LIMIT" by pushing the Joystick to the left.
4. Set "ENABLE" to ON to use.

To exchange the right and the left limit, set "SWAP" to ON.

To apply limits on the auto pan (endless panning), set "AUTO PAN" to ON.

NOTE: When the flip mode is 90°, 100°, 110° or 120° and you moves over 90° vertically, the panning range operates in opposite side.

3. Program and Operation

- INITIALIZE DATA

```
INITIALIZE DATA

FACTORY DEFAULT
ERASE PROGRAMMED DATA
PRESET FOCUS DEFAULT
EXIT(ESC TO EXIT)
```

- FACTORY DEFAULT

Select "FACTORY DEFAULT" to initialize the Data.

```
FACTORY DEFAULT

ARE YOU SURE ?

CANCEL
OK
```

- ERASE PROGRAMMED DATA

Erase all stored data from the Flash-ROM of the selected camera. You will be asked to enter ON or OFF. If you wish to erase all data then select "ERASE" run, otherwise press the ESC key to exit without erasing. The erased data includes all stored data (Auto Scan, Preset, and Tour....) except origin offset.

The offset value is still valid after all data is erased. The offset value can be zero with default set of Offset origin menu.

```
ERASE PROGRAMMED DATA

AUTO SCAN      : ON
PRESET         : ON
TOUR           : ON
PATTERN        : ON
ALARM          : ON
AREA TITLE     : ON
PRIVACY ZONE   : ON
CAMERA         : ON
DOME SETUP     : ON
ERASE
SAVE AND EXIT(ESC TO CANCEL)
```

3. Program and Operation

- **PRESET FOCUS DEFAULT**

This menu set the default mode of the focus when you save the Preset.

```
PRESET FOCUS DEFAULT

FOCUS           : AUTO

SAVE AND EXIT(ESC TO CANCEL)
```

FOCUS : AUTO / MANUAL / ONE PUSH

- **ORIGIN OFFSET**

```
OFFSET SETUP
      (CTRL KEY)

PAN OFFSET      : 000.0
TILT OFFSET     : 000.0
ENABLE          : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

This feature is useful to align a new dome camera exactly the same as the previously installed dome camera.

Dome camera's origin set and all data initialize option do not override offset values. Only the default set option in this menu will set the offset value to zero. This can be used to avoid ceiling obstructions.

- **DOMES RESET**

```
DOMES RESET

ARE YOU SURE ?

CANCEL
OK
```

This feature is used to re-calibrate the orientation of a selected dome camera. Origin offset value is not affected by this function. (Offset is still valid after origin set)

3. Program and Operation

• SYSTEM MENU

```
SYSTEM MENU

MOTOR SETUP
PASSWORD EDIT
ORIGIN CHECK
CALIBRATION           : ON
PASSWORD ENABLE       : OFF
MENU TIME OUT         : OFF
BLINK CURSOR          : ON
DOME ANSWER           : ON
SAVE AND EXIT(ESC TO CANCEL)
```

CALIBRATION : ON(Auto origin check) / OFF
PASSWORD ENABLE : ON(requires the password to enter menu) / OFF
MENU TIME OUT : ON(5mintues) / OFF(always menu display)
BLINK CURSOR : ON / OFF(no blinking cursor)
DOME ANSWER : ON / OFF(no acknowledge command from the dome)
This option is helpful to escape the collision of the command using some DVR.

• MOTOR SETUP

Motor Setup menu provides the pan and tilt speed of a camera. User can set the desired speed with pushing the Joystick to the left or right. During operation, pressing **153** + **ON** keys will change the speed to the SLOW mode and pressing **153** + **OFF** keys will change the speed to the Normal mode.

Press and hold the **SHIFT** key and moving the Joystick will operate with the TURBO speed mode.

```
MOTOR SETUP

PROPOTIONAL P/T       : ON
P/T MODE              : NORMAL

SAVE AND EXIT(ESC TO CANCEL)
```

3. Program and Operation

PROPOTIONAL P/T : ON / OFF
P/T MODE : SLOW / NORMAL / TURBO
SLOW MAXIMUM SPEED : 40°/second
NORMAL MAXIMUM SPEED : 90°/second
TURBO MAXIMUM SPEED : 380°/second

• PASSWORD EDIT

```
PASSWORD EDIT SETUP
                      (CTRL KEY)
INPUT PASSWORD
PASSWORD :

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 0 1 2 3
4 5 6 7 8 9 ( )

SAVE AND EXIT(ESC TO CANCEL)
```

You can change the password with 6-digit character in this menu.

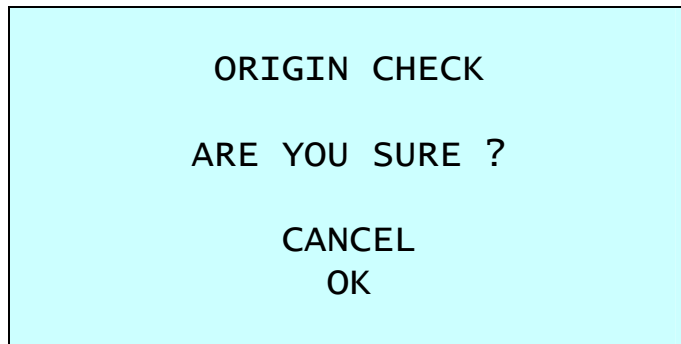
The default password is 555555.

When the password enable is on, the input password window displays to enter the menu. At this time, move the cursor to the desired character by the Joystick and press the **SHIFT** or **IRIS Open** key.

3. Program and Operation

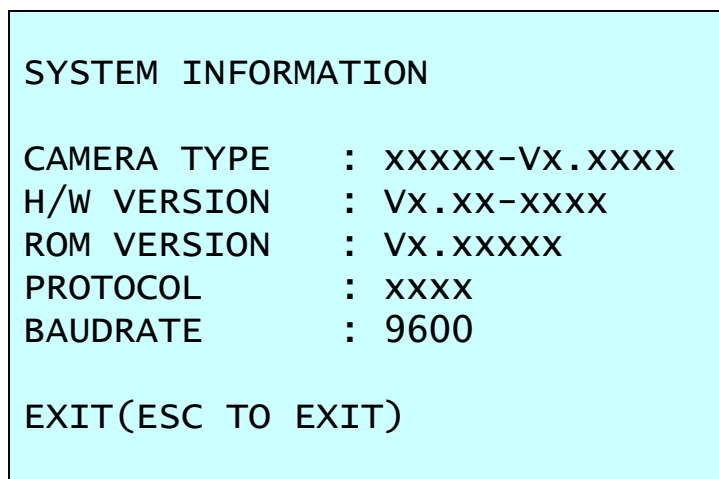
- **ORIGIN CHECK**

When you find the wrong position of the camera during operation, execute this origin check and the dome camera will arrange to the right position after the origin check operation.



Pressing **151** + **ON** keys will execute the origin check.

- **SYSTEM INFORMATION**



The system information provides essential information about the dome camera if service is required. When you view this screen, you can determine the camera type, ROM version. The information on this screen cannot be modified.

3. Program and Operation

3.12 Function Run

This Function Run menu allows you to execute the function when you use a keyboard or a DVR without the function keys (Preset, Pattern, Tour and Scan).

FUNCTION RUN SETUP (CTRL KEY)		
PRESET	:	---
PATTERN	:	---
TOUR	:	---
SCAN	:	---
HOME		
AUTO PAN		
ALARM OUT	:	---
EXIT(ESC TO EXIT)		

1. Select the desired Function by pushing the Joystick up or down.
2. Select the number by twist the Joystick in PRESET, PATTERN, TOUR, and SCAN.
3. Press the **SHIFT** or **IRIS Open** key to execute.

NOTE: To execute the function, you should save the function (PRESET, PATTERN, TOUR, and SCAN) first.

- HOME

Select "HOME" and press the **SHIFT** key. Then camera goes to the default position to which the camera returns after an assigned period of inactivity passes. The default position may be a Preset, Tour, Pattern or no action.

- AUTO PAN

You can execute the endless auto pan which is to turn one direction continuously by select the Auto Pan.

- ALARM OUT

This function can operate only when the alarm out setup has the time in the alarm menu.

3. Program and Operation

Ex)

```
ALARM OUT SETUP  
  
OUT      : 1 MIN  
  
EXIT(ESC TO EXIT)
```

You press the **SHIFT** or **IRIS Open** key then that alarm out operates during the setting time only.

3.13 Factory Setup

```
FACTORY SETUP  
  
TOUR DWELL TIME   : 03 SEC  
ANSWER DELAY      : 03 SEC  
SAVE AND EXIT(ESC TO CANCEL)
```

Pressing **250** + **PRST** keys pops up this menu.

TOUR DWELL TIME means the dwell time between Tours.

ANSWER DELAY means the response time of the dome and you don't need to change in normal condition.

Troubleshooting Tips

If problems occur, verify the installation of the camera with the instructions in this manual and with other operating equipment. Isolate the problem to the specific piece of equipment in the system and refer to the equipment manual for further information.

Problem	Possible Solution
No video.	Verify that power is connected to all pieces of equipment in the system. Verify that the power switches are in the ON position. Check the video connections.
Poor video quality.	Check that the BNC connectors are inserted properly. Check the voltage level of the dome camera. Cable for video is shielded.
Dome cameras lose their positions.	Reset the cameras using the Dome configuration menus. Check that the dome cameras are inserted properly in the base. Check the voltage level of the dome camera.
Camera number does not match the multiplexer number.	Check the camera ID and insert the BNC cable into the proper input of the multiplexer.
Picture is torn when switching.	Check Line Lock setting and adjust phase of L/L.



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