NUVICO®

EASY TRAK™

PTZ DOME SYSTEM

SC-S36

WDR
Wide Dynamic Range

INSTALLATION MANUAL

Disclaimer

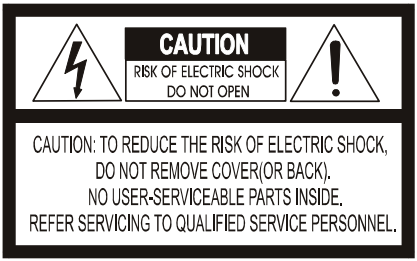
- While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions
- NUVICO reserves the right to change the specifications of the hardware and software described herein at any time without prior notice.
- No part of this guide may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form, by any means, without prior written permission of NUVICO.
- NUVICO makes no warranties for damages resulting from corrupted or lost data due to a mistaken operation or malfunction of the cameras, peripheral devices, or unapproved/unsupported devices.

Warning and 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 OBJECTS THROUGH THE VENTILATION GRILLS OR OPENINGS ON THE EQUIPMENT.

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 triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

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.

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

THIS CLASS A DIGITAL EQUIPMENT 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.

Table of Contents

1. Introduction

ABOUT THIS MANUAL

Thank you for purchasing our EasyTrak™ 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 programing functions simple and easy. Now equipped with proprietary EZ-Coax™ transmission, initial setup and maintenance can be done easily and safely on the ground or a centralized location.

*Before installing and using this camera, please read this manual fully and carefully, and be sure to keep it handy for later use.

Key Features

- 1/4" CCD Sensor
- 550 TV Lines
- 36X A/F Optical Zoom Lens (3.4~122.4mm)
  12X Digital Zoom (combined total of 432x)
- Modular Design
- Time sync with up to 10 Scheduled Actions
- Day/Night Functionality with ICR
- **EZ-Coax™: NUVICO Up-the-Coax Telemetry Control**
- Wide Dynamic Range (WDR)
- Multiple Protocol Support with Auto Detection and Setup
- "Instant Digital Flip" of 180° during Tilt Travel
- 360° Continuous Pan
- Download / Save / Upload PTZ Settings using CK-1000
- Built-in Power Surge Protection
- Power Requirement: 24VAC (40VA)

1. Introduction

Content Verification

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

EasyTrak™ PTZ Dome Series

1. EasyTrak™ PTZ Dome Camera
2. Aluminum Pendant Housing w/ Wall Mount (Pendant Housing Model)
3. Installation Manual
4. Mounting Hardware

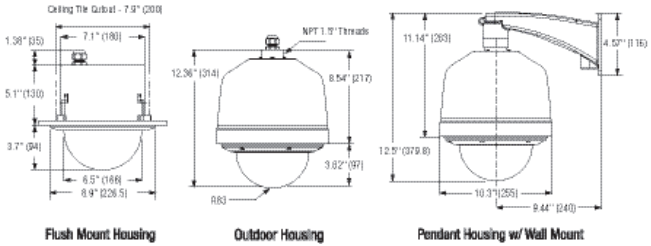
Available Models

• NTSC: SC-S36N-PHW (Pendant Housing), SC-S36N-FMH (Flush Mount Housing)

EasyTrak™ PTZ Dome Camera Dimensions

See the diagram below for the exact dimensions for the EasyTrak™ PTZ Dome Camera Dimensions.

UNIT: inches (mm)

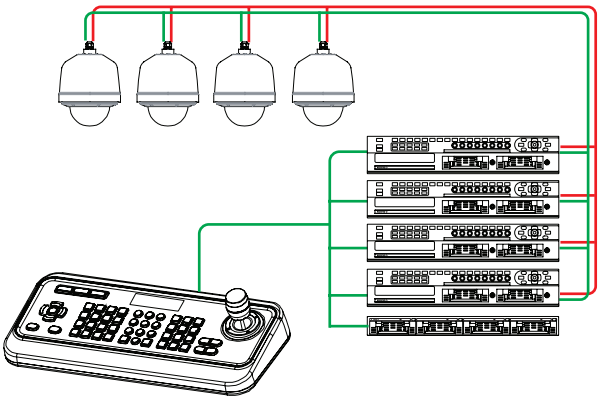


2. Installation and Configuration

2.1.0 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.

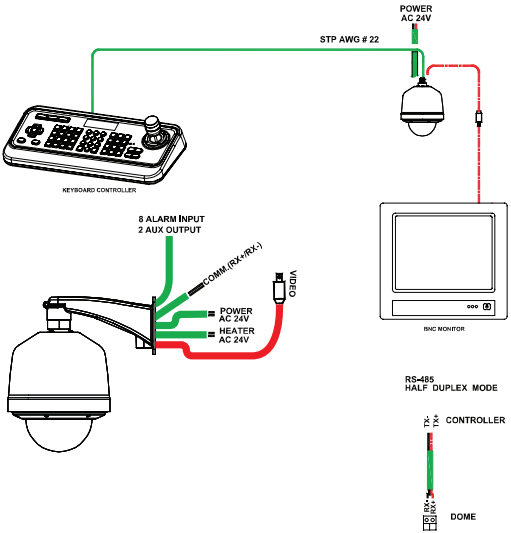
Figure. 1 Illustrates Sample Installation Configuration.



2. Installation and Configuration

2.1.1 Basic Configuration of EasyTrak™ PTZ Dome System

Figure. 2 Illustrates the Basic Installation Configuration.



2. Installation and Configuration

2.1.2 Connecting the EasyTrak™ PTZ Dome Directly to the DVR

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

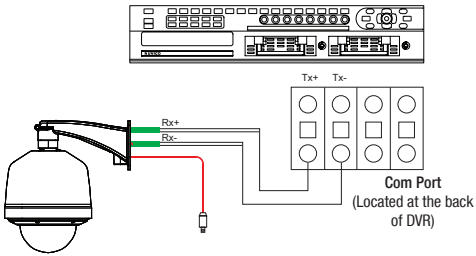


Figure. 3 Illustrates connecting EasyTrak™ PTZ to the DVR.

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

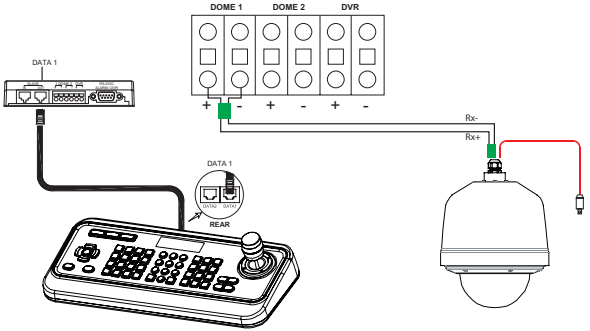
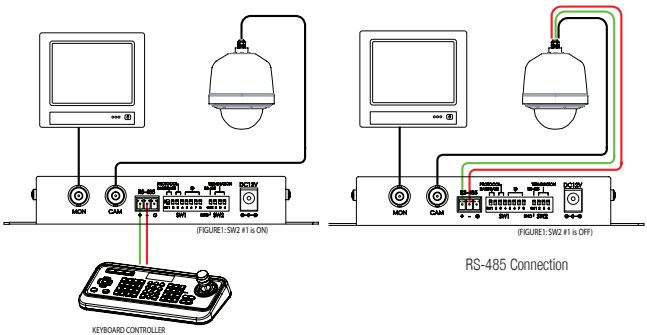


Figure. 4 Illustrates connecting EasyTrak™ PTZ to the Controller via J-box.

2. Installation and Configuration

2.1.4 Connecting the EasyTrak™ PTZ Dome to the EZ-Coax™



EZ-Coax™ BNC Connection

RS-485 Connection

Figure. 5 Illustrates connecting EasyTrak™ PTZ to the EZ-Coax™ Transceiver.

Use minimum of AC 24V / 40VA power source.

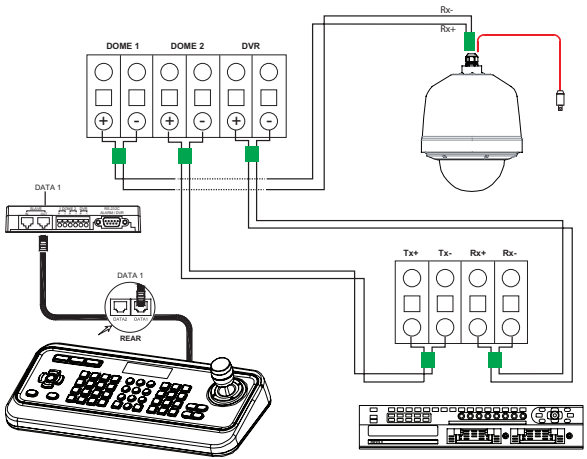
- Connect the VIDEO-OUT jack to the VIDEO-INPUT of the device.
- As the connecting method varies with the equipment, refer to the manual supplied with the equipment.
- Always make sure that the camera's power is off when connecting the cables.
- The camera is supplied with second video output on the camera housing. To use this feature along with a service monitor, second monitor cable is required.

Using a RS-485 communication, it will be able to control the ZOOM/FOCUS and OSD menu from the controller or through the DVR. RS-485 does not allow star connection layout. It must be in a daisy-chain configuration. An amplifier/repeater is required to extend over 1.2km in distance.

2. Installation and Configuration

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

Figure. 6 Illustrates connecting EasyTrak™ PTZ dome & DVR into the Controller Keyboard.



Com Port
(Located at the back
of DVR)

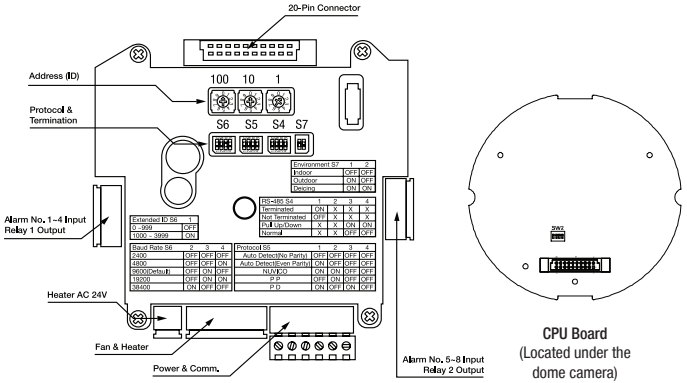
2. Installation and Configuration

2.1.6 DIP Switch Layout Diagram

EasyTrak™ PTZ dome camera must be installed by a qualified service personnel only.

Before installing this camera system, Instruction Manual must be read thoroughly and fully understood. This setup procedure involves proper setting of the configuration switches indicated below.

Figure. 7 Indicates layout of the configuration switches.



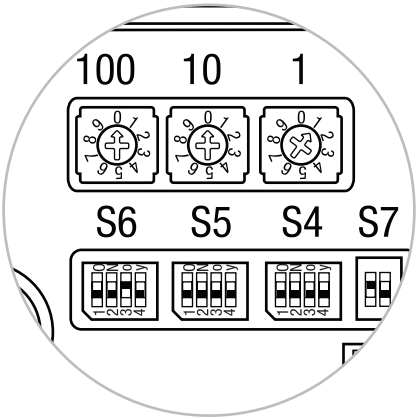
2.1.7 EasyTrak™ PTZ Dome Camera Address (ID)

Each EasyTrak™ PTZ dome camera must have a unique address (ID). Identical IDs on the same line may damage the control circuit caused by an electrical short. When installing multiple cameras or a DVR, it is recommended that cameras ID's be identical to the camera port of the DVR.

Cam Port 1 = Dome ID 1, Cam Port 2 = Dome ID 2 ... Cam Port 16 = Dome ID 16.

If more than 16 PTZ cameras are installed using two or more DVRs the following formula is usedful to determine the Dome ID: ID = 16x (n-1) +m (Where n = number of DVR, m = Camera Port)

Refer to Figure. 8 for setting the EasyTrak™ PTZ dome camera address (ID) and protocol selection.



DOME ID	100	10	1
001	0	0	1
.	.	.	.
999	9	9	9

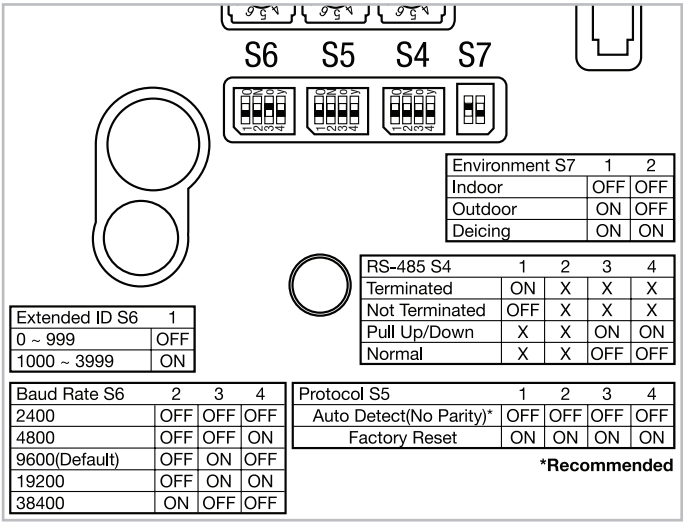
100 / 10 / 1: Indicates the digit placement of the Dome ID number. The '100' dial determines the 100th digit number. If set to '9,' the Dome ID would be 900. The '10' dial determines the 10th digit number, and the '1' being the last number of the camera ID.

2.1.8 Setting Protocols

EasyTrak™ PTZ dome camera is capable of supporting multiple protocols if the communication speed is matched (same baud rate i.e., 9600 bps). All EasyTrak™ PTZ dome camera comes with 'Auto Detection' as factory default for optimal performance.

Note: Consult service personnel if the PTZ dome camera is installed with a device other than a recommended PTZ camera controller.

Figure. 9 Illustrates the Protocol Selection Tables



Environment S7	1	2
Indoor	OFF	OFF
Outdoor	ON	OFF
Deicing	ON	ON

RS-485 S4	1	2	3	4
Terminated	ON	X	X	X
Not Terminated	OFF	X	X	X
Pull Up/Down	X	X	ON	ON
Normal	X	X	OFF	OFF

Extended ID S6	1
0 ~ 999	OFF
1000 ~ 3999	ON

Baud Rate S6	2	3	4
2400	OFF	OFF	OFF
4800	OFF	OFF	ON
9600(Default)	OFF	ON	OFF
19200	OFF	ON	ON
38400	ON	OFF	OFF

Protocol S5	1	2	3	4
Auto Detect(No Parity)*	OFF	OFF	OFF	OFF
Factory Reset	ON	ON	ON	ON

***Recommended**

2.1.9 Connections

- How to Connect to RS-485

  The EasyTrak™ PTZ dome camera has built-in RS-485 receiver so that it can be controlled remotely by an external control device such as a Controller Keyboard or a DVR.

  RS-485: Connect the TXA (Tx+) and TXB (Tx-) of the RS-485 control devices (KBD, DVR...) to TRX+, TRX- of the dome camera.

  RS-485 does not allow for a star connection layout. A Splitter is required if a star connection layout is desired. RS-485 guarantees 1.2 Km of data line routing. A Repeater is recommended to extend over 1.2 Km.

- Connecting the Video Output

  Refer to Figure. 2 - Basic Installation Diagram

- Connecting the Alarms

  AL1 to 8 (Alarm In)
  Magnetic, PIR or other external sensor devices can be used to signal the PTZ camera reacting to an event. Refer to Chapter 3.2 - Program and Operation for configuring alarm input.

  GND (Ground)
  Note: All the connectors marked GND are common.

  Connect the ground of the Alarm input and(or) the Alarm Output to the GND connector.

2.1.9 Connections (Continued)

- NO / NC (Normally Opened or Normally Closed dry contact relay output)

  EasyTrak™ PTZ dome camera can activate external devices such as buzzers or lights using dry contact relays. Connect the device to the NO (NC) (Alarm Out) and COM (Common) connectors. See Chapter 3 - Program and Operation for configuring alarm output.

- Connecting the Power

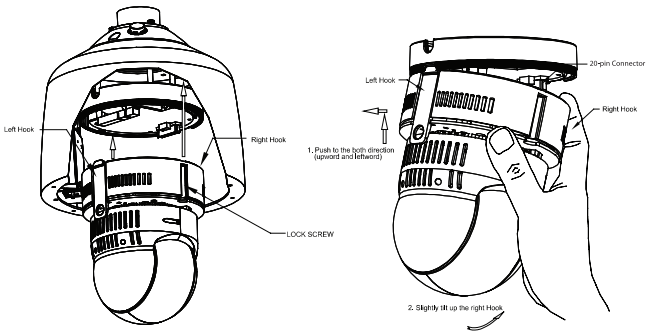
  Connect the AC 24V 40VA power to the camera. Use certified / Listed Class 2 power supply transformer only.

2. Installation and Configuration

2.2.0 Mounting the EasyTrack™ PTZ Dome Camera

Make sure that all the DIP switches are properly configured, and the external connections all properly connected before mounting the PTZ camera to any surface. The EasyTrak™ PTZ camera is designed to mount on a structural body supporting load of up to 5 Kg.

Figure. 10 Example of Typical Ceiling Mounted Installation.



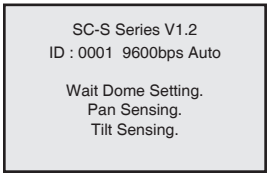
INSTALLING THE CAMERA HEAD TO THE HOUSING BASE

1. Firmly hold the PTZ camera head as illustrated above.
2. Look carefully at the base of the camera head (PTZ module) and the base of the camera housing (enclosure) making certain that the 20-pin connector are on the same side. Rotate the camera head if necessary.
3. Align the latch hooks on both sides of the camera head and at the base of the camera housing, then push firmly until one hook snaps into place.
4. Snap the other remaining latch hook into place.
5. Once both sides are securely latched on, screw in the lock-screws located at the adjacent sides of the latch hooks.

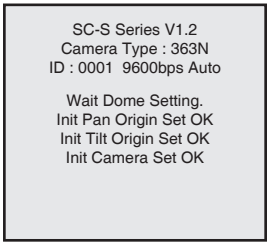
2. Installation and Configuration

2.2.1 Power On & Boot-Up Sequence

When the EasyTrak™ 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.

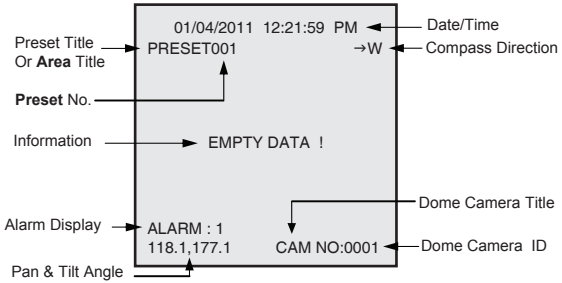


Automatic Calibration



Automatic Diagnostic

Typical On-Screen-Display (OSD) during normal operation and display positions.



3. Program & Operation

3.0 Dome Camera Selection

Prior to programming or operating the EasyTrak™ 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: Pressing [1] then [6] then [CAM] key sequentially will select the camera 16. The selected camera ID will be displayed on the monitor.

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

Button or Joystick movement in menu	Function
 Joystick **left or right**	Go into the sub-menu items. Execute the command(exit) Change value. Navigate through the menu items.
 Joystick **up or down**	Navigate through the menu items.
 Joystick **down**	Finish editing title.
 Zoom **handle twist**	Change value.(Increase / Decrease) Enter editing title mode.
ESC	Escape from the menu without change.

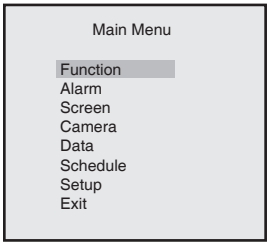
3.1 Programming the PTZ Functions

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.

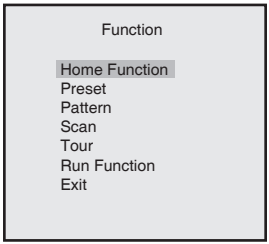
3.1.0 Function

Access the 'Function' section of the OSD Main menu to designate a Home Function, program Presets, Patterns, Scans, or setup complicated Tours.

Press the [Menu] button on the Controller Keyboard, the OSD (On Screen Display) Main menu appears on the screen.



Main-menu



Sub-menu

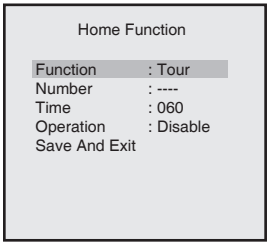
Select the 'Function' option, then press the Joystick handle to the right to access the 'Function' sub-menu.

Note: To accessed the EasyTrak™ PTZ dome camera's OSD menu using your DVR, press the [Menu] button while in the PTZ menu.

3.1 Programming the PTZ Functions

3.1.1 Home Function ([MENU] Button ⇨ Function ⇨ Home Function)

Please program the Preset,Tour, Pattern, or AutoScan prior to designating the 'Home Function.' The 'Home Function' recalls the predefined function, such as Preset, Tour, Pattern, or AutoScan as the default function after an assigned period of inactivity passes.



Function: Tour/ Preset/ Pattern / AutoScan
Number: ---
Time: 10~240 Seconds
Operation: Disable

PROGRAMMING THE HOME FUNCTION

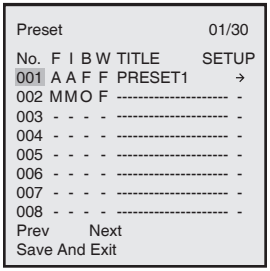
1. Select the PTZ camera by pressing the [0~9] button, followed by the [CAM] button.
2. Then press the [MENU] button to display the PTZ main menu.
3. Highlight 'Function,' and enter the sub-menu by pressing the Joystick handle to the right (or twist the handle CW or CCW).
4. Repeating the same procedure and enter the 'Home Function' sub-menu
5. Under 'Function' (Automatically highlighted), scroll through the available pre-programmed Presets, Tours, Patterns, and AutoScans and designate the desired 'Home Function.'
6. Define the 'Number' of the desired Preset, Tour, or Pattern.
7. Define the idle wait time, then 'Enable' or 'Disable' this function by entering the 'Operation' sub-menu.
8. Highlight 'Save And Exit,' then press the Joystick handle to the right to save and exit.

3.1 Programming the PTZ Functions

3.1.2 Preset ([MENU] Button ⇨ Function ⇨ Preset [Preset])

Preset is designed to store Pan, Tilt, Zoom, Focus, and Iris settings. Once programmed, pressing combinations of [0~9] number buttons followed by the [Preset] button on the controller keyboard ([0~240] ⇨ [Preset]) will automatically recall the predefined Preset. Presets may be assigned to alarm actions or as the 'Home Function.'

Preset programming menu allows for up to 30 pages, with each page programmable up to 8 Presets.



F (Focus): Auto / Manual
I (Iris): Auto / Manual / Iris Prior / Shutter Prior / Brightness
B (BLC): OFF / ON
W (WDR): ON / Auto / OFF

A: Automatic
M: Manual
F : Off
O: On
- : Not yet defined 16-digit title space
_ : Current cursor position
→: AE Setup

PROGRAMMING THE PRESET

1. Press the [Preset] button to display the PTZ Preset menu. ([Menu] Button ⇨ Function ⇨ Preset Shortcut: [Preset])
2. Select an empty Preset slot. Using the Joystick, aim the camera to the desired location. (For zoom operation, twist the Joystick handle)
3. After the camera is aimed at the desired location, hit the Focus [Near or Far] button. The empty Preset slot should now be filled-in.
4. You may enable, disable, or choose other available options from the Focus, Iris, BLC, or WDR fields by twisting the Joystick handle while the cursor is over their respective fields. (A=Automatic, M=Manual, F=OFF, O=ON, etc)

3.1.2 Preset (Continued)

Editing the Title Name (Programming the Preset Continued)

4. Move the cursor over to the 'TITLE' field, twist the Joystick handle to enter the custom name for the Preset.

5. Once in the 'Edit Title' sub-menu, enter the desired name. Highlight the desired space of the title name and twist the Joystick handle to initiate the character selection. Starting from left and moving one space at a time to the right, select from the symbols and alphanumeric characters below the default title until the desired Title name has been fully entered.
6. Finish the Preset programming by scrolling down to the next empty slot, or all the way to the bottom to 'Save And Exit.' Should you want to program another Preset, simply repeat steps 2~6 while highlighting the next empty Preset slot.

Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

3.1 Programming the PTZ Functions

Deleting the Programmed Preset - To delete a programmed Preset, press [OFF] or [HOME] button while highlighting the undesirable Preset.

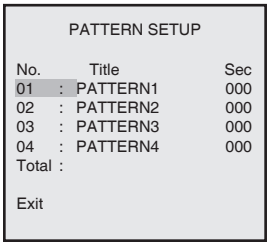
Overwriting the Programmed Preset - Overwriting the programmed Preset is possible without having to go through the camera's OSD main menu. Pressing [0~248] button followed by [Preset] button respectively, recalls the programmed Preset position; however, pressing the [Shift] button in between the two buttons ([0~248] ⇨ [Shift] ⇨ [Preset]) will re-programs the Preset to the current view.

Preset Programming Shortcut - The reprogramming method described above can also be used as a shortcut method of programming the Preset. Simply press [1~248] to designate a Preset number, followed by [Shift] then [Preset] button to program the Preset.

Note: If the selected Preset slot is occupied, you will be prompted to overwrite the existing Preset.

3.1.3 Pattern ([MENU] Button ⇨ Function ⇨ Pattern [Pattern])

The Pattern function is designed to store and memorize complicated movements of the EasyTrak™ PTZ dome camera for total of 240 seconds. Once programmed, pressing the combination of [0~4] number buttons followed by the [Pattern] button on the Controller Keyboard ([0~4] ⇨ [Pattern]) will automatically recall the predefined pattern.



Note: 'Sec' on the far right represents the number of seconds that particular Pattern is programmed for. The total maximum for all 4 patterns are 240 seconds. If the maximum is reached while programming a pattern, the PTZ will stop momentarily then resume recording again overwriting the previously recorded data.

Additionally, although the Pattern titles have been already filled-in, it can be easily modified to reflect the specific patterns and purpose. It also has the added benefit of being easily identified by the user.

3.1 Programming the PTZ Functions

3.1.3 Pattern (Continued)

PROGRAMMING THE PATTERN

1. Press the [Pattern] button to display the PTZ Pattern menu. ([Menu] Button ⇨ Function ⇨ Pattern Shortcut: [Pattern]
2. Select an empty Pattern slot ('SEC' for 'seconds' must read '000'). The Pattern recording is initiated by twisting the Joystick handle. Once the PTZ dome camera has been moved in a desired Pattern for up to 240 seconds (For zoom operation, twist the Joystick handle), press the Focus [Near or Far] button to end the recording.
3. Move the cursor over to the 'TITLE' field to enter the custom name for the Pattern. Using the 'Edit Title' page enter the desired title name (See step 6 of 'Programming the Preset' Pg.27)
4. Finish the Pattern programming by scrolling down to the next empty slot, or all the way to the bottom to 'Save And Exit.' Should you want to program another Pattern, simply repeat steps 2~3 while highlighting the next empty Pattern slot.

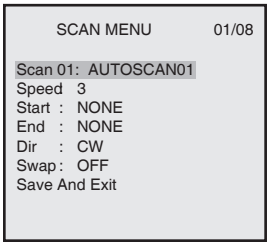
Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

Deleting the Programmed Pattern - To delete a programmed Pattern, press [OFF] or the [HOME] button while highlighting the undesirable Pattern.

3.1 Programming the PTZ Functions

3.1.4 Scan ([MENU] Button ⇨ Function ⇨ Scan [Scan])

The Scan function is designed to store and memorize 2 specific points of the surveillance perimeter--the 'Start' point and the 'End' point. Once programmed, the EasyTrak™ PTZ dome camera will start the scan from the designated start point and move horizontally or diagonally to the end point and back in the predetermined speed. ([0~16] ⇨ [Scan]).



Scan 01: Autoscan01
Note: Although the scan title has been already assigned, it can be easily modified to reflect the programmed scan. It has the added benefit of being easily identified by the user.

Speed: 1 (Slower) ~ 8 (Faster)
Start: Designated Start point
End: Designated End point
Dir (Direction): CW(Clockwise) / CCW(Counter Clockwise)
Swap: Swaps the START point and END point

PROGRAMMING THE SCAN

1. Press the [Scan] button to display the PTZ Scan menu. ([Menu] Button ⇨ Function ⇨ Scan Shortcut: [Scan])
2. Select an empty Scan slot (START and END field should read 'NONE'). The 'SCAN 01' is named automatically. A new custom name may be entered by twisting the Joystick handle. Using the 'Edit Title' page enter the desired title name (See step 6 of 'Programming the Preset' Pg.27)
3. Move the cursor down to the 'Speed' option and determine the scanning speed.
4. Move the cursor down to the 'Start' option. You may select the start position by twisting the Joystick handle. Aim the camera to the desired start location, then press the Focus [Near or Far] button to designate the start position.
5. Move the cursor down to the 'End' option. Using the same procedure described above, designate the end position.

3.1.4 Scan (Continued)

1. Move the cursor down to the 'Dir' option. Determine the direction of the scan to either 'CW' (Clockwise) or 'CCW' (Counter Clockwise).
2. Move the cursor down to the 'Swap' option. You can swap the 'Start' position with the 'End' position using this option.
3. Finish the scan programming by scrolling down to the bottom to 'Save And Exit.'

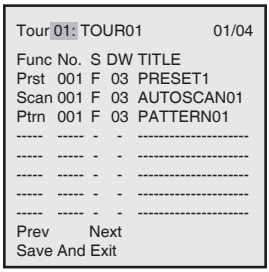
Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

Deleting the Programmed Scan - To delete a programmed Scan, press [OFF] or [HOME] button while highlighting the undesirable Scan.

3.1 Programming the PTZ Functions

3.1.5 Tour ([MENU] Button ⇨ Function ⇨ Tour [Tour])

There are total of 8 Tours that can be programmed in the EasyTrak™ PTZ dome camera. Each tour can be made up of any number of Presets, Patterns, and Scans, to a total of 32 pre-programmed functions.



Tour 01: Tour01 (Tour01-Tour08)
Note: Although the tour title has been already assigned, it can be easily modified to reflect the programmed Tour. It has the added benefit of being easily identified by the user.

Func (Function): Preset / Scan / Pattern.
No.: Indicates the number of the function.
S (Speed): Fast / Medium / Slow
DW (Dwell): Determine the dwell speed (01 to 99 sec.)
Title: Displays the title of the function.
Prev (Previous) Next: Displays the next eight functions.

PROGRAMMING THE TOUR

1. Press the [Tour] button to display the PTZ Tour menu. ([Menu] Button ⇨ Function ⇨ Tour Shortcut: [Tour])
2. Select an empty Tour slot (All fields should be undefined). The 'Tour 01' located at the very top is named automatically. A new custom name may be entered by twisting the Joystick handle. Using the 'Edit Title' page enter the desired title name (See step 6 of 'Programming the Preset' Pg.27) (**Note:** If the Tour slot is already occupied, press the Joystick to the right until an empty slot can be located.)
3. Move the cursor down to the 'Func' (function) option. Select a predefined function in the undefined slot by pressing the one of the function buttons ([Preset], [Pattern], or [Scan]. (**Note:** If Preset is selected, the Preset view can be recalled by pressing the [Preset] button again.)

3.1 Programming the PTZ Functions

3.1.5 Tour (Continued)

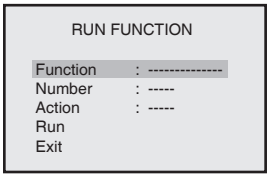
1. By default, the 'No.' (number) slot will automatically be set to '01.' Move the cursor over to 'No.' and define the function number by scrolling through the available programmed functions, if another number is desired.
2. The 'S' (speed) and the 'DW' (dwell time), is the speed and dwell time between the selected functions. These fields are automatically filled-in to their default setting of Slow and 3 seconds. You may customize these option by moving the cursor over to the 'S' or 'DW,' and selecting a different speed or dwell time.
3. Repeat steps 3~5 for each available slot until a desired Tour has been entered.
4. Finish the Tour programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

Deleting the Programmed Tour - To delete a programmed Tour, press [OFF] or [HOME] button while highlighting the undesirable Tour.

3.1.6 Run Function ([MENU] Button ⇨ Function ⇨ Run Function)

The Run Function allows you to run the programmed function or alarm without exiting out of the OSD menu. This function is useful in testing out the programmed function or alarm.



Function: Preset / Pattern / Scan / Tour / Home / Alarm Out / Auto Pan
Number: Displays the function number.
Action: On / Off (Used only for 'Alarm Out' function)
Run: Activates the desired function.

1. Program the desired 'Function' then move the Joystick left or right while highlighting 'Run' to initiate the pre-programmed function.
2. You may exit this function by highlighting 'Exit' and moving the Joystick left or right.

3.2 Programming the Alarm

3.2.0 Alarm ([MENU] Button ⇨ Alarm)

The Alarm function is designed to trigger specific pre-programmed function of the Easy-Trak™ PTZ dome camera when there are changes in the input statuses. The PTZ dome camera reports the alarm state to the Controller Keyboard.

Press the [Menu] button on the Controller Keyboard and the OSD Main menu appears on the screen. Select the 'ALARM' option, then press the Joystick handle to the right to access its sub-menu.

ALARM SETUP

No	Fun	Pri	In	Out	Hld	Latch
01	P01	0	OFF	OFF	001	OFF
02	048	3	OFF	OFF	001	OFF
03	001	1	OFF	OFF	001	OFF
04	-----	3	OFF	OFF	001	OFF
05	-----	3	OFF	OFF	001	OFF
06	-----	3	OFF	OFF	001	OFF
07	-----	3	OFF	OFF	001	OFF
08	-----	3	OFF	OFF	001	OFF

Save And Exit

No (Number): Alarm Input Number
Fun (Function):
001 ~ 240 (Preset) / T01 ~ T04 (Tour) / A01 ~ A08 (Scan) / P01 ~ P04 (Pattern)
Priority 0 (Pattern, Scan, Tour)
Pri (Priority): Lower Number = Higher Priority
Priority 1 ~ 8 (Preset) / Priority 0 (Pattern, Scan, Tour)
In: NO/NC - Normally Open/Closed, OFF - Ignore
Out: R01 - Relay Out 1 / R02 - Relay Out 2 / OFF - No Input
Hld (Held): 01~99 sec. (Alarm held time)
Latch: ON (Shows ALL Alarms including past Alarm), OFF (Shows ACTIVATED Alarms ONLY)

As indicated above, to set any sophisticated functions, such as Pattern, Scan, or Tour, you must set the 'Pri' (Priority) to zero. It is important to note that when an Alarm is triggered at two separate locations simultaneously, the camera can only follow one direction at a time. And because of this, it is recommended that all priority numbers be different across 8 alarm inputs.

Note: There are total of 9 levels (Including 0) of priority. Levels 1~8 supports Presets (Pxx) only. However, the highest priority level '0,' supports higher functions such as Pattern (Pxx), Scan (Axx), and Tour (Txx).

3.2 Programming the Alarm

3.2.0 Alarm (Continued)

PROGRAMMING THE ALARM

1. Under Alarm 01, select the desired Preset by scrolling through the available programmed Presets. Scroll by twisting the Joystick handle. (**Note:** To select a Pattern, Scan, or Tour instead of Preset, change the priority setting to '0'.)
2. Select the desired Status of Input (NC/NO/OFF), and Status of Output (R01~R02/OFF) by twisting the Joystick handle on their respective fields.
3. Repeat steps 1~2 for each available slot until the desired Alarm is programmed.
4. Finish the Alarm setup programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

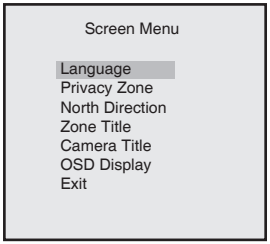
Deleting the Programmed Alarm Setting - To delete a programmed Alarm setting, press [OFF] or [HOME] button while highlighting the undesirable Alarm setting.

3.3 Programming the Screen Functions

3.3.0 Screen ([MENU] Button ⇨ Screen)

Access the 'Screen' section of the OSD Main menu to setup a Privacy Zone, designate a North Direction, enter a custom Camera Title, or enable or disable other various OSD settings.

Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Screen' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.



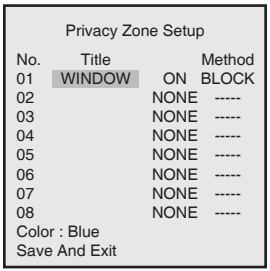
3.3.1 Language ([MENU] Button ⇨ Screen ⇨ Language)

The default language for the EasyTrak™ PTZ dome camera is English. The default cannot be changed.

3.3 Programming the Screen Functions

3.3.2 Privacy Zone ([MENU] Button ⇨ Screen ⇨ Privacy Zone)

This function is used to conceal specific areas within the frame of the camera. The Privacy Zones moves in direct relation to the pan/tilt/zoom operation of the EasyTrak™ PTZ dome camera to mask-out the designated private area at all times. EasyTrak™ PTZ dome camera offers masking of up to 8 unwanted areas.



No. (Number): Zone Title number.
Title: Input the custom title so that it can be easily identified, as shown in the left illustration.
NONE/ON/OFF: Displays the status.
Method: BLOCK or V-OFF. Use 'Block' for conventional privacy mask. 'V-OFF' disables the entire screen.
Color: Mask color. This is a global setting and will effect all privacy masks.
Latch: ON (Shows ALL Alarms including past Alarm), OFF (Shows ACTIVATED Alarms ONLY)

PROGRAMMING THE PRIVACY ZONE

1. Press the [Menu] button on the Controller Keyboard, the OSD (On Screen Display) Main menu appears on the screen. Select the 'Screen' option. Scroll down to 'Privacy Zone,' then press the Joystick handle to the right to access the sub-menu.
2. While highlighting the '01' under the 'No.' column, twist the Joystick handle to initiate the selection process. Point and zoom the camera to cover the entire area you wish to mask, then press the Focus [Near or Far] button to designate that area private.
3. To enter the zone Title, move the cursor over to the 'Title' section and twisting the Joystick handle. Each twist of the handle cycles through the alphanumeric characters. Moving from left to right, input the Title that best describes the designated Privacy Zone.
4. What was once 'NONE' will change to reflect the active status, 'On.' This programmed Privacy Zone can be turned off when desired by twisting the Joystick handle while highlighting the status.

3.3.2 Privacy Zone (Continued)

1. Repeat steps 2~4 for each available slot until all the desired Privacy Zones have been entered.
2. Finish the Privacy Zone setup programming by scrolling down to the bottom to 'Save And Exit.'

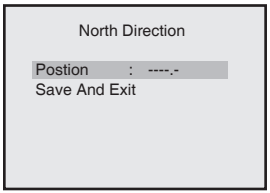
Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

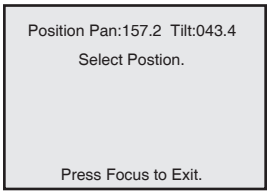
3.3.3 North Direction ([MENU] Button ⇨ Screen ⇨ North Direction)

North Direction is a user-defined setting that may correspond to magnetic north or well-known landmark. It is used to approximate the camera's pointing direction while Direction Indicator is in operation.

DESIGNATING THE NORTH DIRECTION

1. Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Screen' option. Scroll down to 'North Direction,' then press the Joystick handle to the right to access the sub-menu.





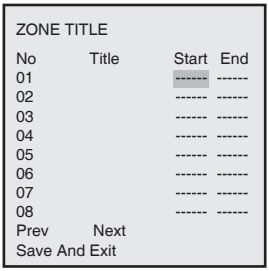
2. Initiate the view selection by twisting the Joystick handle. When prompted, aim the camera to the desired location, then press the Focus [Near or Far] button to designate the 'North Direction.'

3.3 Programming the Screen Functions

3.3.4 Zone Title ([MENU] Button ⇨ Screen ⇨ Zone Title)

Zone Title is a user-defined setting that helps identify certain areas of the monitored perimeter.

1. Press the [Menu] button on the Controller Keyboard, the OSD (On Screen Display) Main menu appears on the screen. Select the 'Screen' option. Scroll down to 'Zone Title,' then press the Joystick handle to the right to access the sub-menu.



2. 'Start' is highlighted automatically. Initiate the view selection by twisting the Joystick handle. When prompted, aim the camera to the desired location, then press the [Near] or the [Far] button to designate the start area.
3. Once the 'Start' point has been designated, and the coordinates automatically filled-in, highlight the empty 'End' portion and repeat the step above.
4. To enter the Zone Title, highlight the newly designated Zone under the 'No' column and twist the Joystick handle. Using the 'Edit Title' page enter the desired title (See step 6 of 'Programming the Preset' Pg.27). Then 'Save And Exit' to finalize the Title programming.
5. Repeat steps 2~4 for each slot until all the desired Zone Titles has been entered.
6. Finish the Zone Title programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

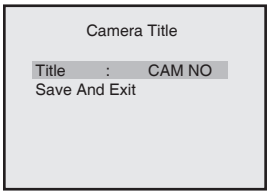
3.3 Programming the Screen Functions

3.3.5 Camera Title ([MENU] Button ⇨ Screen ⇨ Camera Title)

A custom title for the EasyTrak™ PTZ dome camera can be entered to easily identify between the many other cameras that may be connected to the DVR or network.

PROGRAMMING THE CAMERA TITLE

1. Press the [Menu] button on the Controller Keyboard. Select the 'Screen' option. Scroll down to 'Camera Title,' then press the Joystick handle to the right to access the sub-menu.



2. To enter the Camera Title, twist the Joystick handle on the already highlighted 'Title' field.
3. Once in the 'Edit Title' sub-menu, enter the desired name using the symbols and alphanumeric characters below the default Title. (See step 6 of 'Programming the Preset' Pg.27)
4. Finish the Camera Title programming by scrolling down to the bottom to 'Save And Exit.'

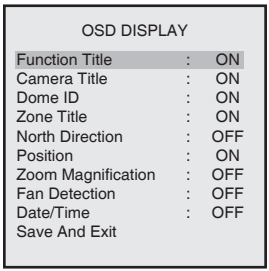
Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

3.3 Programming the Screen Functions

3.3.6 OSD Display ([MENU] Button ⇨ Screen ⇨ OSD Display)

Access the 'OSD Display' section of the OSD main menu to enable or disable the various titles and functions covered in the previous programming sections.

1. Press the [Menu] button on the Controller Keyboard. Select the 'Screen' option. Scroll down to 'OSD Display,' then press the Joystick handle to the right to access the sub-menu.



Function Title: Enables or disables the Preset, Pattern, Scan, and Tour Title functions.
Camera Title: Enable or disable the Camera Title.
Dome ID: Enable or disable the Dome ID display.
Zone Title: Enable or disable the Zone Titles.
North Direction: Enable or disable the azimuth direction display.
Position: Enable or disable the current viewing coordinates.
Zoom Magnification: Enable or disable the current zoom magnification level.
Fan Detection: Enable or disable the fan icon display.
Date/Time: Enable or disable the Date/Time display.

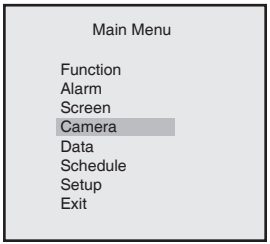
2. Enable or disable the various Title options and functions.
3. Once the desired changes have been made, scroll down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming. Pressing [ESC] button while programming will only exit the programming without saving.

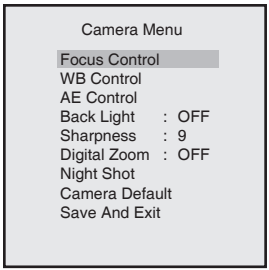
3.4 Programming the Camera Functions

3.4.0 Camera ([MENU] Button ⇨ Camera)

Access the 'Camera' section of the OSD Main menu to setup the Focus Control, adjust the WB Control, setup the AE Control, enable or disable the BLC, change the Motion Setup, adjust the Sharpness, setup the Digital Zoom, configure the Night Shot, and reset the Camera to the Factory Default.



1. Press the [Menu] button on the Controller Keyboard, the OSD (On Screen Display) Main menu appears on the screen. Select the 'Camera' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.

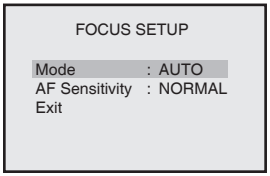


Focus Control: AUTO / MANUAL
WB Control: White Balance
AE Control: Automatic Exposure
Back Light: Back Light Compensation
Sharpness: Adjust the sharpness of the image. (0-15)
Digital Zoom: Enable or disable the digital zoom magnification.
Night Shot: Force the B/W mode or vice versa.
Camera Default: Enable or disable the display.

3.4 Programming the Camera Functions

3.4.1 Focus Control ([MENU] Button ⇨ Camera ⇨ Focus Control)

The Focus Control function is used to tune the sensitivity of the Auto Focus, or turn off the automatic function entirely to conserve the lifespan of the lens in highly active areas.

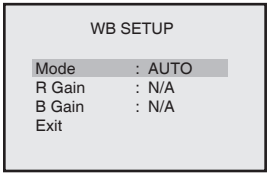


Mode: AUTO / MANUAL
AF Sensitivity: Normal / Low

1. Choose between Auto or Manual mode. Under Manual setting, focusing has to be done manually with each zoom-in or zoom-out operation using the [Near]/[Far] buttons. (**Note:** The 'AUTO' setting is highly recommended for most environments.)

3.4.2 WB Control ([MENU] Button ⇨ Camera ⇨ WB Control)

The WB Control (White Balance) function is used to manually control the White Balance by increasing or decreasing the 'R' (Red) or 'B' (Blue) color values. It can also be set to '**AUTO**' (recommended), Manual, or 7 other pre-configured settings.



Mode: AUTO / INDOOR / OUTDOOR / ONE PUSH / ATW (Auto Tracking White Balance) / MANUAL / OUTDOOR AUTO / SODIUM AUTO / SODIUM FIXED)
R Gain (Red): 1-255
B Gain (Blue): 1-255

3.4 Programming the Camera Functions

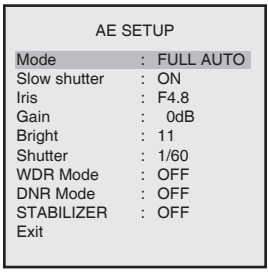
3.4.2 WB Control (Continued)

- **AWC (Auto White Balance Control)** - Automatically adjusts the red and blue values to compensate for the color shifting.
- **INDOOR** - Fixed at color temperature of 3,200ºK
- **OUTDOOR** - Fixed at color temperature of 5,400ºK
- **ONE PUSH** - This setting temporarily allows the user to search for the correct color temperature setting, then lock-it in permanently. This is accomplished automatically the moment you set to this setting. So place A white sheet of paper in front of the camera while cycling through the available options for best result.
- **ATW (Auto Tracking White Balance)** - ATW will automatically adjust the color temperature according to its ambient condition.
- **MANUAL** - Allows manual adjustment of the R Gain (Red) and B Gain (Blue) values.
- **OUTDOOR AUTO** - This is the same as 'OUTDOOR' setting but will allow for minor color shifting corrections.
- **SODIUM AUTO** - Mostly at around 2,700ºK but will allow for minor color shifting corrections.
- **SODIUM FIXED** - Fixed at color temperature of 2,700ºK (typ.)

3.4 Programming the Camera Functions

3.4.3 AE Control ([MENU] Button ⇨ Camera ⇨ AE Control)

The AE Control (Automatic Exposure) function is used to manually control the Iris, Slow Shutters, Gain, and Brightness. It can also be set to 'FULL AUTO' (recommended), or MANUAL, or one of 3 other pre-configured settings.



Mode: Full Auto, Manual, Iris Prio, Shutter Prio, Bright
Slow Shutter*: ON / OFF
Iris: OPEN / F1.8 / F2.0 / F2.8 / F4.0 / F4.2 / F5.6 / F7.6 / F8.0 / F11 / F16 / CLOSED
Gain: OFF / 8dB / 10dB / 12dB / ... / 34dB / 36dB
Bright: 0 ~ 15
Shutter: NORMAL, 1/60, ... , 1/100,000
WDR Mode: Sets the maximum allowed Gain.
DNR Mode: OFF / 1 ~ 5
Stabilizer: ON / OFF / HOLD

*This function is used to automatically increase the light sensitivity by slowing down the effective shutter speed allowing for increased exposure time.

1. Press the [Menu] button on the Controller Keyboard. Select the 'Camera' option. Scroll down to 'AE Control,' then press the Joystick handle to the right to access the sub-menu.

- **FULL AUTO** - Automatic mode will adjust the Iris, Gain, Brightness, and Shutter automatically to produce the best possible picture under any lighting conditions. Digital Slow Shutter can only be enabled or disabled in this mode.
- **MANUAL** - Allows manual control over all the AE (Automatic Exposure) options.
- **IRIS PRIO** - Iris Priority will keep the Iris setting as first priority and adjust the Gain, Brightness, and Shutter automatically.
- **SHUTTER PRIO** - Shutter Priority will keep the Shutter setting as first priority and adjust the Iris, Gain, and Brightness automatically.
- **BRIGHT** - Brightness priority will keep the Brightness setting as first priority and adjust the Iris, Gain, and Shutter automatically.

3.4.3 AE Control (Continued..)

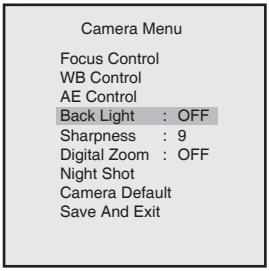
1. Set the 'DNR Mode' (Digital Noise Reduction) On or Off.
2. Turn the 'WDR Mode' (Wide Dynamic Range) On or Off.

- **WDR (Wide Dynamic Range)** - WDR works by calculating the ratio between the brightest and darkest values and determine the balanced medium.

3. Turn the 'STABILIZER' On or Off.
4. Once the desired changes have been made, scroll down to the bottom to 'Exit.'

3.4.4 Back Light (BLC)

BLC can assist in compensating for exposure problem associated with very bright backgrounds causing subjects to bloom or silhouette. BLC divides the frame and calculates each zone according to its exposure level to counter-balance excessive background light to distinguish the subject in the foreground.



1. Press the [Menu] button on the Controller Keyboard. Select the 'Camera' option. Scroll down to 'Back Light,' then press the Joystick handle to the right to turn the BLC function On or Off.

3.4 Programming the Camera Functions

3.4.5 Sharpness ([MENU] Button ⇨ Camera ⇨ Sharpness)

The sharpness of the picture can be adjusted to user preference. Setting '0' represents the smoothest possible, and '15' is the sharpest possible. (0 ~ 15)

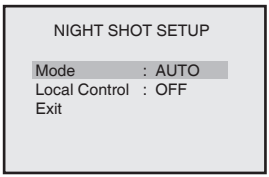
3.4.6 Digital Zoom ([MENU] Button ⇨ Camera ⇨ Digital Zoom)

The EasyTrak™ PTZ dome camera is capable of digitally zooming up to 12X (OFF, 2x, 4x, MAX). Use this feature to control the digital zoom capability and if necessary, turn this feature off.

1. Set the maximum digital magnification. The Digital Zoom only engages when the maximum optical magnification has been reached.

3.4.7 Night Shot ([MENU] Button ⇨ Camera ⇨ Night Shot)

EasyTrak™ PTZ dome camera automatically converts to B/W mode in the absence of adequate lighting to reduce digital noise and add higher contrast. The Night Shot function allows the user to force the Color mode under poor lighting, or B/W mode during the day.



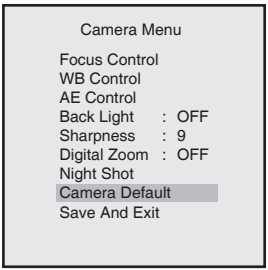
Mode: AUTO / MANUAL
Local Control: ON / OFF

1. While on the 'MANUAL' mode, highlight and change the 'Local Control' to 'ON' to forced the B/W mode. If switched to 'OFF,' it forces the color mode instead. (**Note:** The 'AUTO' setting is recommended for most environments.)
2. Highlight 'EXIT' and move the Joystick either to the left or right to save changes and exit.

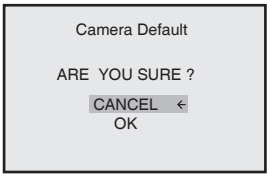
3.4 Programming the Camera Functions

3.4.8 Camera Default ([MENU] Button ⇨ Camera ⇨ Camera Default)

The Camera Default function is used to reset ONLY the 'Camera' programming to the factory default settings. The 'Function' programming will not be deleted. **This will reset the camera programming, such as, Focus Control, WB Control, AE Control, Back Light, Sharpness, Etc.**



1. Press the [Menu] button on the Controller Keyboard. Select the 'Camera' option. Scroll down to 'Camera Default,' then press the Joystick handle to the right to access the sub-menu.

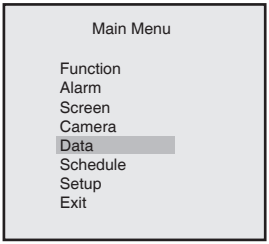


2. Upon entering the sub-menu, you will be prompted to reset the camera programming to the factory default settings. Select 'OK' to reset the camera, or 'CANCEL' to cancel and return to the 'Camera Menu.'

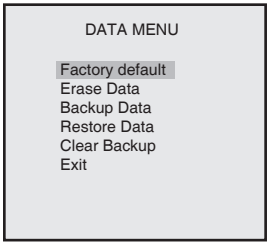
3.5 Programming the Data Functions

3.5.0 Data ([MENU] Button ⇨ Data)

Access the 'Data' section of the OSD Main menu to manage the many camera programming. You may use this feature to default the entire camera to the Factory Default settings (All), Erase the Data (Function only), Backup the Data, Restore the Data, or Clear the Backup Data.



1. Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Data' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.



Factory default: Reverts the camera programming, such as back to factory settings.
Erase Data: Erase only the programmed data.
Backup Data: Backs up the programmed data.
Restore Data: Restores using the Backup Data.
Clear Backup: Clears/Deletes the Backup Data.

3.5 Programming the Data Functions

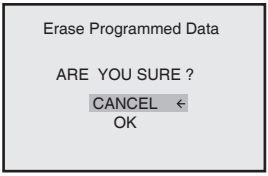
3.5.1 Factory Default ([MENU] Button ⇨ Data ⇨ Factory Default)

The Factory Default function is used to reset the ENTIRE camera settings to the factory default settings. **This will erase all 'Camera' and 'Function' programming! Everything will be erased!**

1. Upon entering the sub-menu, you will be prompted to reset the camera to the factory default settings. Select 'OK' to delete all programming and revert to factory default, or 'CANCEL' to cancel and return to the 'Data Menu.' "WAITING FOR COMPLETION" will flash momentarily and the progress bar will display the current status if activated.

3.5.2 Erase Data ([MENU] Button ⇨ Data ⇨ Erase Data)

This will erase all 'Function' (Preset, Pattern, Scan, Tour) programming, but leave the 'Camera' (Focus, WB, AE, BLC, etc) programming intact.

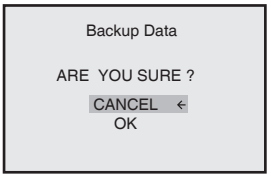


1. Upon entering the sub-menu, you will be prompted to erase the programmed data. Select 'OK' to erase, or 'CANCEL' to cancel and return to the 'Data Menu.'

3.5 Programming the Data Functions

3.5.3 Backup Data ([MENU] Button ⇨ Data ⇨ Backup Data)

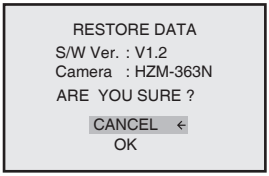
The Backup Data function is used to save both the 'Camera' and 'Function' programming to the backup memory built-in to the camera. Once saved, this allows for complete restoration of the camera programming in case of accidental deletions and unwanted modifications.



1. Upon entering the sub-menu, you will be prompted to backup the camera and its current settings. Select 'OK' to save all data, or 'CANCEL' to cancel and return to the 'Data Menu.'(**Note:** If there is an existing Backup Data already in the backup memory, then the camera will prompt you to clear that memory first.)

3.5.4 Restore Data ([MENU] Button ⇨ Data ⇨ Restore Data)

The Restore Data function is used to revert all camera and function programming to the Backup Data stored in the backup memory.

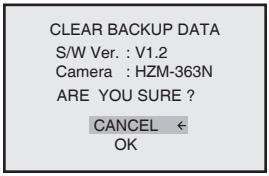


1. Upon entering the sub-menu, you will be prompted to restore the programmed data. Select 'OK' to restore, or 'CANCEL' to cancel and return to the 'Data Menu.'

3.5 Programming the Data Functions

3.5.5 Clear Data ([MENU] Button ⇨ Data ⇨ Clear Data)

The Clear Data function is used to clear the saved data in the Backup Data. **This will delete the 'Backup Data!' This cannot be undone once performed.**

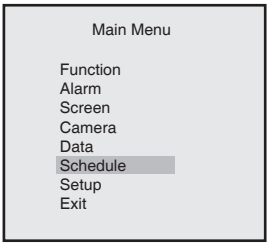


1. Upon entering the sub-menu, you will be prompted to clear the Backup Data. Select 'OK' to clear all data, or 'CANCEL' to cancel and return to the 'Data Menu.'

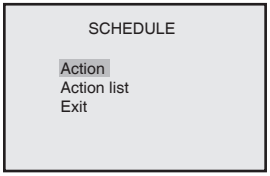
3.6 Programming the Schedule Functions

3.6.0 Schedule ([MENU] Button ⇨ Schedule)

Access the 'Schedule' section of the OSD Main menu to create a schedule of 'Action(s)' you would like the PTZ camera to follow.



1. Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Schedule' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.



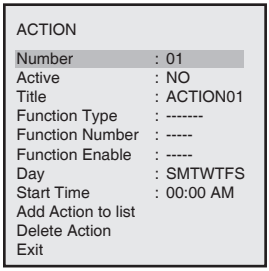
Action: Up to 10 scheduled 'Actions.'
Action list: Function / Active / List

All the programmed 'Action(s)' can be added to the 'Action List' and enabled or disabled together. You may also preview all the programmed actions here.

3.6 Programming the Schedule Functions

3.6.1 Action ([MENU] Button ⇨ Schedule ⇨ Action)

Please program the Function, Camera, and Alarm prior to designating the Schedule 'Action(s).' The programmed 'Action' may be set up to engage a particular 'Function' programming (Preset, Scan, Pattern, Tour), or enable/disable a particular 'Camera' programming (D/N, WDR), or 'Alarm' programming. The Action function is used to create a weekly schedule of the PTZ dome camera. You may create up to 10 'Actions.' This 'Action' can affect for the entire week or just one particular day of the week.



Number: 01-10. Displays the 'Action' number.
Active: NO / YES
Title: ACTION01 Custom Title can be entered here. (See step 6 of 'Programming the Preset' Pg.25)
Function Type: PRESET / SCAN / PATTERN / TOUR / AUTO PAN / D/N: COLOR / D/N: B/W / D/N:AUTO / ALARM OUT/IN / WDR ON/OFF
Function Number: Displays the function number.
Function Enable: ON / OFF (Alarm Out only)
Day: SMTWTFS (Days of the week). Displays the day(s) the function is active.
Start Time: Displays the time function goes active.
Add Action to list: Add the 'Action' to 'Action List.'
Delete Action: Clears all fields or deletes the programmed 'Action.'

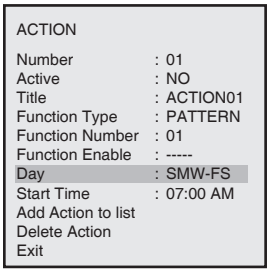
IMPORTANT: The scheduled 'Action' does not have an 'End Time' and therefore remains engaged unless another 'Action' is engaged to end the original programming.

Example: D/N:B/W mode (Day/Night Black/White mode) at 10pm (This is the first 'Action'), requires the D/N:AUTO (Day/Night Auto) mode at 6am (Second Action to end the first 'Action'). If the second 'Action' is not programmed to end the first one, the first 'Action' will indefinitely continue.

3.6 Programming the Schedule Functions

3.6.1 Action (Continued)

PROGRAMMING THE ACTION



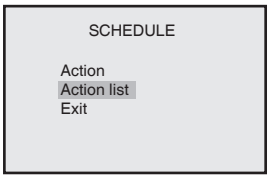
1. Start first by highlighting the 'Active' line and moving the Joystick left or right to activate the feature 'ON.'
2. Change the 'Title' to the desired title reflecting the 'Action,' if necessary.
3. Determine the 'Function Type.' This can be any type of programming. For the entire list of available functions, please refer to the previous page.
4. Designate the 'Function Number' by moving the Joystick left or right.
5. Skip the next line unless the 'Action' function is set to 'Alarm Out.'
6. Determine the day(s) the 'Action' function is active. As illustrated above, specific day(s) can be disabled. The disabled day(s) is represented as (-), instead of the day of the week acronym.
7. Designate the 'Start Time.'
8. Add the 'Action' to the action list.
9. If the newly programmed 'Action' is undesirable, you may choose 'Delete Action,' or press [ESC] to exit without saving and try again. This function can also be used to delete the already programmed 'Action.'

IMPORTANT: The scheduled 'Action' does not have an 'End Time' and therefore remains engaged unless another 'Action' is engaged to end the original programming.

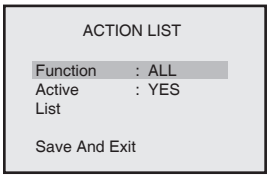
3.6 Programming the Schedule Functions

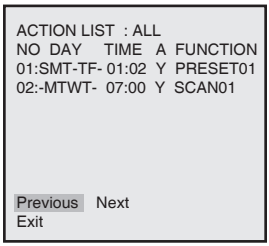
3.6.2 Action List ([MENU] Button ⇨ Schedule ⇨ Action List)

The Action List function is used to engage or disengage all the 'Actions' or a set of individual 'Action(s).' This function can also be used to display the scheduled 'Action(s).'



1. Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Schedule' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.





- In the 'Action List,' and set of functions can be enabled or disabled altogether. When set to 'ALL,' all 'Action' programming are disabled. To view the detailed list of all the 'Action(s),' highlight the 'List' option and move the Joystick right or left.
- The 'List' in the 'Action List' displays the detailed information of the programmed 'Action.'

3.7 Programming the Setup Functions

3.7.0 Setup ([MENU] Button ⇨ Setup)

Access the 'Setup' section of the OSD Main menu to setup the Flip, change the Speed, enable or disable the Preset Freeze, set up the Panning Range, set up the Tilt Over Angle, Calibrate the camera, change the Password, change the Date/ Time, and to display the System Information.

Press the [Menu] button on the Controller Keyboard and the OSD (On Screen Display) Main menu appears on the screen. Select the 'Setup' option. Then press the Joystick handle to the right at the desired option to access its sub-menu.

Flip: ON / OFF
Speed: SLOW / MID / FAST
Preset Freeze: OFF / ON
Panning Range: Limits the camera panning ability.
Tilt Over Angle: W/O BUBBLE / WITH BUBBLE / ON / OFF
Calibration: Reset / Origin Position / Origin Offset Enable/Disable / Auto Calibration ON/OFF
Line Lock Control: Internal / External
Password: Enable/Disable or Edit the Password.
Date/Time: Change the Time/Date format / Enter the Time/Date / Enable/Disable or Edit the Daylight Saving.
System Information: Displays the System Information.

3.7.1 Flip ([MENU] Button ⇨ Setup ⇨ Flip)

The EasyTrak™ PTZ dome camera is designed to automatically digitally 'Flip' the image while tracking a moving target directly below the PTZ dome camera (Ceiling flush mount).

1. Choose the 'ON' setting to allow the digital 'FLIP,' or 'OFF' to prevent the automatic function.

Note: If set to 'OFF' the PTZ camera will STOP at exactly 90° angle. To move beyond this point, you must enable this feature.

3.7 Programming the Setup Functions

3.7.2 Speed ([MENU] Button ⇨ Setup ⇨ Speed)

This function is used to define the speed of the PTZ dome camera when controlled manually using the Controller Keyboard or through the DVR remote.

1. Choose one of 3 available settings. (SLOW, MEDIUM, or FAST)

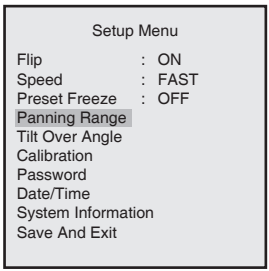
3.7.3 Preset Freeze ([MENU] Button ⇨ Setup ⇨ Preset Freeze)

This function is used to freeze the frame momentarily while the PTZ camera moves quickly from one Preset to the next. This helps avoid the ghosting image which can be disorienting to the viewer.

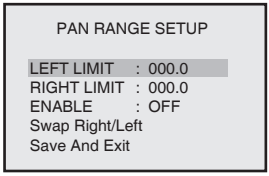
1. Choose the 'ON' setting to enable this feature, or 'OFF' to view the picture as the camera moves from one point to the next.

3.7.4 Panning Range ([MENU] Button ⇨ Setup ⇨ Panning Range)

This function is used to limit the panning ability of the EasyTrak™ PTZ dome camera if installed near a wall or a corner.



3.7.4 Panning Range (Continued)



PROGRAMMING THE PANNING RANGE

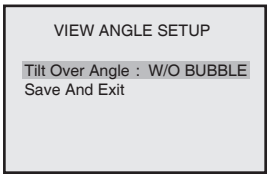
1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'Panning Range,' then press the Joystick handle to the right to access the sub-menu.
2. Highlight the 'LEFT LIMIT' and twist the Joystick handle to initiate the view selection.
3. Pan all the way to the farthest left you wish to view then press the Focus [Near or Far] button to designate the 'LEFT LIMIT.'
4. Repeat the same method described above, and designate the 'RIGHT LIMIT' position
5. Move the cursor down to the 'ENABLE' option and enable or disable this function.
6. You may 'SWAP' both the left and right limits using this function.
7. Finish the programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7 Programming the Setup Functions

3.7.5 Tilt Over Angle ([MENU] Button ⇨ Setup ⇨ Tilt Over Angle)

This function is used to set the limit of the horizontal view angle (Tilt), so that the trim ring or the ceiling does not obstruct the horizontal image when zooming-out (Wide Angle).



1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'Tilt Over Angle,' then press the Joystick handle to the right to access the sub-menu.

- **W/O BUBBLE** - The tilt range of the PTZ dome camera is limited and the view is partially obstructed.
- **WITH BUBBLE** - The tilt range of the PTZ dome camera is limited to view only below the horizon (-10º). The view is NOT obstructed.
- **ON** - When it is desirable to see above the horizon, switch the function 'ON,' to view additional 10° above the horizon. Although the ceiling line and the trim ring is now visible during wide angle view, the viewing angle will narrow during zooming-in operation to clear the obstructed view.
- **AUTO** - The PTZ camera automatically switches between the 'W/O BUBBLE' and 'WITH BUBBLE' modes to give the most possible viewing angle in zoom-in or zoom-out operation.

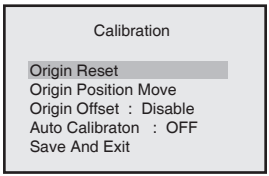
2. Once the desired changes have been made, scroll down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7 Programming the Setup Functions

3.7.6 Calibration ([MENU] Button ⇨ Setup ⇨ Calibration)

The EasyTrak™ PTZ dome camera is equipped with auto-calibration, which is capable of maintaining accurate operation through constant self-correction. Once this function is enabled, the EasyTrak™ PTZ dome will go through a series of Pan/Tilt movement and align its vertical and horizontal position against several check points. Any changes in its position through external forces will be automatically corrected.



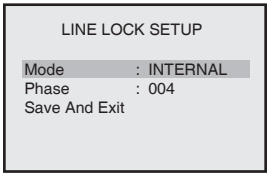
1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'Calibration,' then move the Joystick handle to the right to access the sub-menu.
2. Scroll down to 'Auto Calibration' and move the Joystick handle to the right to enable the function 'ON.'
3. Finish the programming by scrolling down to the bottom to 'Save And Exit'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7 Programming the Setup Functions

3.7.7 LIne Lock Control ([MENU] Button ⇨ Setup ⇨ Line Lock Control)

This function is used to prevent the vertical video rolling when switching between multiple cameras to a single monitor. If the PTZ dome camera is experiencing video rolling, Line Locking the camera will synchronize the picture on the screen. If text appears slightly tinted on color monitors, disabling the Line Lock may prevent this problem.



1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'Line Lock Setup,' then press the Joystick handle to the right to access the sub-menu.

2. Select the synchronizing method to either 'INTERNAL,' or 'EXTERNAL.' Choose 'EXTERNAL' to adjust the phase of the picture with other cameras.

3. Scroll down to 'Phase' and adjust the phase level to the desired level.

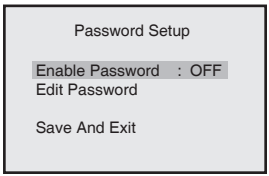
4. Finish the programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7 Programming the Setup Functions

3.7.8 Password ([MENU] Button ⇨ Setup ⇨ Password)

This function is used to setup the Password for the PTZ dome camera. You may use this feature to prevent unauthorized users from making unwanted changes to the camera settings and function programming. This feature also be used to change and edit your Password, if you feel it has been compromised.



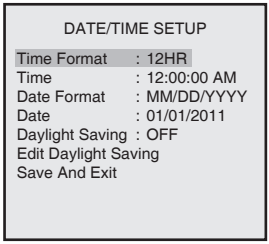
1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'Password,' then move the Joystick handle to the right to access the sub-menu.
2. Scroll down to 'Enable Password' and change this setting to 'ON.' The factory default password is 9999.
3. Once enabled, highlight 'Edit Password' and move the Joystick to the right once to change the default password.
4. A number '0' appears and is simultaneously highlighted. Either keep the number '0' or move the Joystick up or down to change the number. Moving one digit at a time, input the desired 4-digit password.
5. Once complete, a new line appears and prompts you to confirm the password just entered. If the 4-digit password is a match, the camera will promptly inform you that the password has been successfully changed.
6. Finish the programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7 Programming the Setup Functions

3.7.9 Date/Time ([MENU] Button ⇨ Setup ⇨ Date/Time)

The Date/Time function is new to the EasyTrak™ PTZ dome camera and allows for sophisticated functions such as 'Schedules' and 'Action.' The time and date does to set by itself and needs to be initially setup so that time-based functions can be utilized.

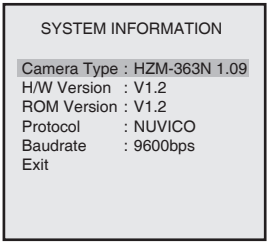


1. Press the [Menu] button on the Controller Keyboard. Select the 'setup' option. Scroll down to 'Date/Time,' then press the Joystick handle to the right to access the sub-menu.
2. Determine the Time Format between the standard 12 hour format (AM/PM) or the military 24 hour format.
3. Scroll down to 'Time' and enter the current time moving left to right and moving the Joystick up or down to change the number.
4. Choose the desired 'Date Format.' 'MM' stands for the Month, 'DD' for the Day, and 'YYYY' for the year.
5. Scroll down and enter the correct 'Date.'
6. Enable or disable the 'Daylight Saving.'
7. Scroll down to the 'Edit Daylight Saving' to modify the pre-defined Daylight Saving date and time.
8. Finish the programming by scrolling down to the bottom to 'Save And Exit.'

Note: You must 'Save And Exit' to finalize the programming, pressing [ESC] button while programming will exit programming without saving.

3.7.10 System Information ([MENU] Button ⇨ Setup ⇨ System Information)

System Information can be viewed by accessing this option. The information may be needed for servicing and troubleshooting purposes.



1. Press the [Menu] button on the Controller Keyboard. Select the 'Setup' option. Scroll down to 'System Information,' then press the Joystick handle to the right to access the information.

Troubleshooting Tips

If a problem occurs, first re-check the installation of the camera against the instructions from this manual. Isolate the problem based on the problems listed below, and follow the instructions in the *solutions* section. If the problem still persists, then contact our technical support at the contact information on the back of this installation manual.

Problem	Solution
No video.	Verify that power is connected to all components in the system. Verify that the power switches are ON. Check that the BNC connectors are securely connected.
Poor video quality.	Check the voltage level of the dome camera. Check the power supply voltage (nominal 24VAC)
Dome cameras lose their positions.	Reset the cameras using the Dome configuration menus. Check if there is unusual sound. Check the voltage level of the dome camera.
Camera number does not match the multiplexer number.	Check the camera ID and connect the BNC cable into the proper input of the multiplexer.
Picture is torn when switching	Adjust phase of Line Lock.

Technical Specifications | NTSC

Technical Specifications	SC-S36N
Video Format	NTSC
Image Sensor	1/4" CCD
Horizontal Resolution	550 TV Lines
Day/Night Functionality	Yes w/ ICR
Lens Type	36X A/F Optical Zoom 3.4-122.4mm
(Auto Focus & Auto Iris)	12X Digital Zoom (Total: 432X)
Angle of View	57.8°(W) ~ 1.7°(T)
Min. Focus Distance	1ft.
Communication	RS-485, EZ-Coax™
Sync System	Internal / External
Effective Pixels (HxV)	768(H) x 494(V)
Electronic Shutter	1/1 ~ 1/10,000 sec.
Main Video Output	1.0 Vp-p Composite, 75 ohm
Minimum Illumination	1.4 Lux (Color), 0.01 Lux (ICR On)
S/N Ratio	More than 50dB (AGC Off)
WDR	On/Off/Auto
BLC / DNR	Yes (On/Off) / Off/1-5
Focus / WB / Iris / Gain Control	Auto with Manual Override
Pan Travel Range	360° Continuous
Manual Pan Speed	0.1° ~ 90°/sec
Manual Turbo Pan Speed	360°/sec
Preset Pan Speed	360°/sec
Tilt Travel Range	-5° ~ 185°
Manual Tilt Speed	0.1° ~ 90°/sec
Preset Tilt Speed	360°/sec
Proportional Pan & Tilt	Yes
Preset Accuracy	0.2°
Preset	240 Positions
Area Title	16
Privacy Zone	8
Title Character	16
Tour	8
Pattern	4 (240 seconds)
Auto Pan	8 Scan, 1 Auto Pan
Automatic Flip (180°)	Instant Digital Flip
Alarm Input / Output	8 / 2
General Information	**SC-S36N**
Operating Temperature	-40ºF ~ +122ºF, -40ºC ~ +50ºC
Operating Humidity	Within 90% RH
Power Requirement	24VAC / 40W
w/ Fan & Heater	24VAC / 50W

*Specifications are subject to change without any prior notice.

NUVICO®

Tel: 201-541-1605 Fax: 201-541-1620
Toll Free: 866-523-1700
E-mail: techsupport@nuvico.com
www.nuvico.com

Version 1.2