



# x12 Analog PTZ Outdoor Quick Start Guide

Version 1.01

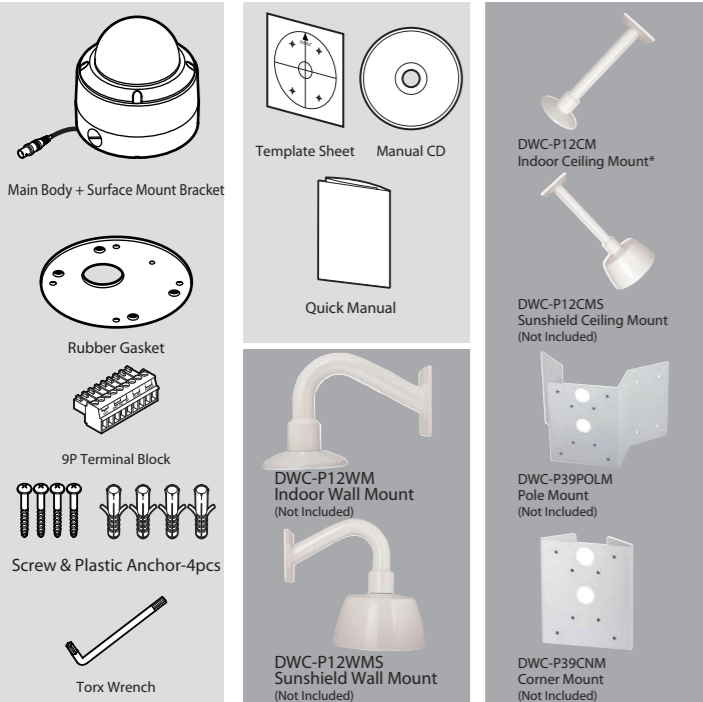


This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, 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.

To disconnect power from the mains, pull out the mains cord plug. When install the product, ensure that the plug is easily accessible.

## PREPARATION

The following items are included with the PTZ camera



Thank you for purchasing Digital Watchdog's Super Speed Dome PTZ Outdoor Dome Camera. Before installing the camera, please verify your model and read this guide carefully.

Accessories are optional and sold separately.

## INSTALLATION

### Camera Parts and ID Setup

- Dome Cover**  
- Protects the camera module from outside environment.  
- Do not detach protection film from the dome cover before finishing all installation to protect dome cover from scratches or dust.
- Lockup Screw**  
Fixes main body to the surface mount bracket.
- Fan**  
Fan for temperature control.
- BNC Video Cable**  
Main video output cable.
- 9P Terminal Block Slot**  
9P terminal block that is connected with cables is inserted in this slot.
- LED & Reset Button**  
LED for active (yellow light), power (red light) status and Reset button for reset camera.
- ID Setup Switch**  
Specify the camera ID.  
The ID number of the camera is set using binary numbers.  
- If you want to control a certain camera, you must match the camera ID with 'CAM ID' setting of DVR or keyboard controller.  
- The range of Camera ID is 0~255.  
- All cameras have a factory default Camera ID of 1.  
- Camera ID will be effective without having to reboot the camera.
- 3/4" Pipe Mounting Hole**  
- This is used to pass the cables to the cameras.  
- When water protection is needed, connect the 3/4" pipe through this hole, then pass the cables through the pipe.
- Mounting Hole (x4)**  
This is used to attach the surface mount bracket to the ceiling.
- Surface Mount Bracket**  
The camera's main body protects the camera's wires. This part is required when installing the camera with an Indoor Accessory.

## INSTALLATION (SURFACE MOUNT)

### Installation Using Surface Mount Bracket

- Disassemble the main body with the surface mount before installation the camera.**
- Drilling 4 Holes on the Ceiling**  
Using provided template sheet, drill a hole (30mm diameter) on the ceiling panel to pass cables.
- Fixing the Surface Mount Bracket**  
Pass the cables through the 3/4" pipe hole, and screw the surface mount bracket to the ceiling.
- Rubber Gasket**  
- Before installing the gasket, the hole in the center is to be cut by knife when only necessary.
- Connecting the Cables and the Terminal Block**  
Connect the cables to the terminal block and then put the terminal block in the slot of the main body.
- Fixing the Main Body**  
Screw the main body to the surface mount bracket by screwing 4 lock-up screws.
- Detaching the Protection Film**  
Detach the protection film from the dome cover after finishing all installation.

## INSTALLATION (OUTDOOR)

### Installation Using Sunshield Dome\*

- Disassemble the main body with the surface mount before installation the camera.**
- Drilling a Hole on the Ceiling and Fixing the Anchor Bolts**  
To install the ceiling mount bracket, drill four holes (6mm diameter/50mm depth) on the ceiling and insert the anchor bolts into the hole.
- Fixing the Ceiling Mount Bracket**  
1. Drill a hole (20mm diameter) on the pipe of the bracket to pass the cables.  
2. On the fixed anchor bolts, attach the rubber gasket and screw the ceiling mount bracket.
- Fixing the Sunshield Dome**  
Pass the cables through the hole of the Sunshield Dome. Screw the Sunshield Dome to the ceiling mount bracket.
- Connecting the Cables to the Terminal Block**  
Connect the cables to the terminal block and then put the terminal block in the slot of the main body.
- Connecting the Terminal Block**  
Put the terminal block connected to the cables in the slot of the main body.
- Fixing the Main Body**  
Screw the main body to the surface mount bracket by screwing 4 lock-up screws.
- Detaching the Protection Film**  
Detach the protection film from the dome cover after finishing all installation.

## INSTALLATION

### Terminal Block Connections

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- Alarm Output**  
- It connects to the alarm lights, siren or lamps, and it is activated according to the OSD menu setting.  
- There are 1 Alarm Output and it is relay contact type. Therefore, you do not have to care about polarity, AC/DC, and isolations between channels. Care must be taken for the power capacity of relay contact type.  
- The sensor types are normal open and normal close.
  - Alarm Input/Sensor**  
- It connects to IR sensor, IrDA sensor or door switch. If the sensor is activated, it can activate to move camera to the specific angle and to connect the alarm device.  
- A cable of the sensor should connect to input 1 or 2, and the other should be connected to 'COM' slot.  
- The sensor types are normal open and normal close.
  - RS-485 Communication (Keyboard Controller/ DVR)**  
For PTZ control, connect this line to keyboard and DVR.  
To control multiple cameras at the same time, RS-485 communication lines of them are connected in parallel as shown below.
  - Power**  
- Please check the correct rated power.  
- The rated power is marked on the bottom of the camera.

## INSTALLATION (INDOOR)

### Installation Using Ceiling / Wall Mount Bracket\*

- Disassemble the main body with the surface mount before installation the camera.**
- Drilling 4 Holes on the Ceiling/ Wall and Fixing the Anchor Bolts**  
To install the ceiling mount bracket, drill four holes (6mm diameter/50mm depth) on the ceiling and insert the anchor bolts into the hole.
- Fixing the Ceiling Mount Bracket**  
1. Drill a hole (20mm diameter) on the pipe of the bracket to pass the cables.  
2. On the fixed anchor bolts, attach the rubber gasket and screw the ceiling mount bracket.
- Fixing the Surface Mount Bracket**  
Pass the cables through the hole of the surface mount bracket, screw the surface mount bracket to the ceiling mount bracket.
- Connecting the Cables to the Terminal Block**  
Connect the cables to the terminal block and then put the terminal block in the slot of the main body.
- Connecting the Terminal Block**  
Put the terminal block connected to the cables in the slot of the main body.
- Fixing the Main Body**  
Screw the main body to the surface mount bracket by screwing 4 lock-up screws.
- Detaching the Protection Film**  
Detach the protection film from the dome cover after finishing all installation.

## INSTALLATION

### First Time Bootup and Initial Testing

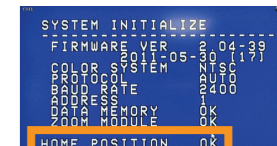
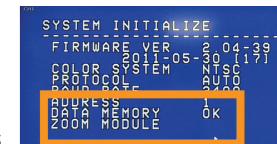
- Check Points before Operation**
- Before power is applied, please check the cables carefully.
  - The camera ID of the controller must be identical to that of the camera to be controlled. The camera ID can be checked in the system information of OSD menu.
  - If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
  - If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
  - Since the operation method can be different for each controller available, refer to the manual for your controller if camera cannot be controlled properly.

**Preset and Pattern Function Pre-check**  
Check how to operate preset, pattern, scan and group function with keyboard controller/DVR in advance to operate camera function using them.  
(Refer to system keyboard manual)

**Start OSD Menu**  
Using the OSD menu, preset, pattern, scan, group and alarm input function can be configured for each application.  
Enter 'Preset key + 95'.

**Auto Calibration**  
If the camera is continuously subjected to very high temperatures (over 50°C or 122°F) for a long period, the camera can lose focus and produce blurry images. In this case, it is recommended to turn on AUTO CALIBRATION by running preset 165.

If you execute AUTO CALIBRATION, the camera will calibrate its focus for 10 seconds every 24 hours. To turn OFF this function, please run preset 166.

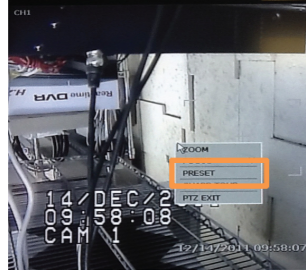
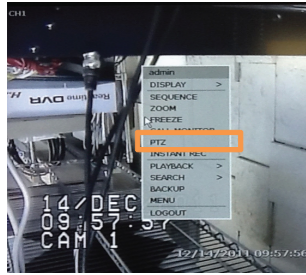


# OSD MENU (FOR DW'S VMAX, VMAX480 & VMAX Flex)

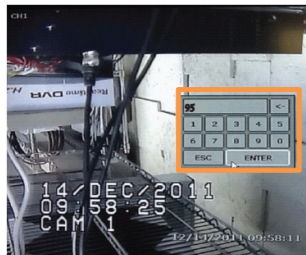
## Preset 95

Preset 95 is reserved for starting the camera's OSD menu. For a complete list of all the reserved presets, see the PTZ12X's complete manual or page 19.

## Accessing the OSD Menu



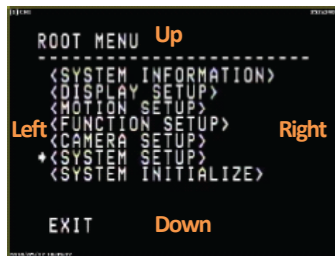
- Select Full Screen view on the selected PTZ camera
- Right-Click the screen & Select 'PTZ'



- Enter 95 to access the OSD menu

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# OSD MENU (CONTROL THROUGH THE DVR)



- Using mouse, click on area of the screen labeled:  
UP: to scroll up the menu  
DOWN: to scroll down the menu  
Left: Vertically move from one edit tab to the one to its left  
RIGHT: Vertically move from one edit tab to the one to its right.

- To move to a sub-menu  
Once you have selected the sub-menu you want to enter, scroll the mouse's wheel forward.



- To exit a sub-menu  
When you have completed all desired modifications, scroll the mouse's wheel forward to save changes, or backwards to return to the Root menu and cancel all changes

Please consult the manual for further instructions on how to use a computer mouse to operate the OSD Menu

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# RESERVED PRESETS

Some preset numbers are reserved to special functions.

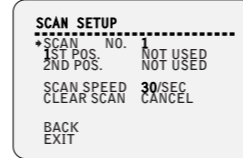
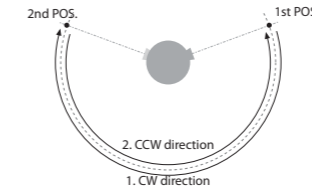
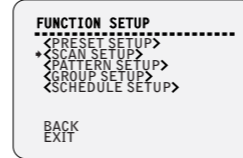
Preset #	Function	On/Off
95	Enters Into OSD Menu	ON
131~134	Pattern Function 1 ~ 4	ON
141~148	Scan Function 1 ~ 8	ON
151~158	Group Function 1 ~ 8	ON
161~164	Relay 1~4 Output	OFF
Set key + 161~164	Relay 1~4 Output	ON
165	Auto Calibration	ON
166	Auto Calibration	OFF
167	Zoom Proportional Jog	ON
Set key + 167	Zoom Proportional Jog	OFF
170	BLC Mode	OFF
171	BLC Mode	HIGH
174	Camera Focus Mode	AUTO
175	Camera Focus Mode	MANUAL
176	Camera Focus Mode	SEMI-AUTO
177	Day & Night Mode	AUTO
178	Day & Night Mode	NIGHT
179	Day & Night Mode	DAY
190	OSD Display Mode	AUTO (except privacy mask)
191	OSD Display mMode	OFF (except privacy mask)
192	OSD Display Mode	ON (except privacy mask)
193	All Privacy Mask display	OFF
194	All PrivacyMask display	ON
200	Digital zoom	ON
201	Digital zoom	OFF

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# SCAN SETUP

By using the scan function, you can make the camera to move between 2 preset positions repeatedly. When the scan function runs, the camera moves from the preset assigned as the 1st point to the preset assigned as the 2nd point in Clockwise direction. Then the camera moves from the preset assigned as the 2nd point to the preset assigned as the 1st point in Counterclockwise direction.

In case that the preset assigned as the 1st point is same as the preset assigned as the 2nd point, the camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction.

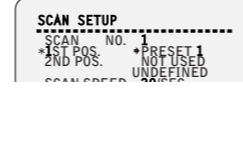


**SCAN NO.**  
Selects the scan number to edit. If a selected scan has not defined, 'NOT USED' is displayed in 1st position and 2nd position.

**1ST POS. / 2ND POS.**  
Set up the 2 position for scan function. If a selected preset is not defined, 'UNDEFINED' will be displayed as shown below.

**SCAN SPEED**  
Sets the scan speed.

**CLEAR SCAN**  
Deletes the current scan data.



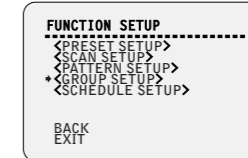
Note: to properly setup a scan for the camera, be sure to have at least 2 Presets setup..

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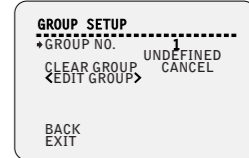
# GROUP SETUP

The group function allows you to run sequence of presets, pattern, and/or scans. Maximum 8 group can be stored. Each group can have max 20 actions.

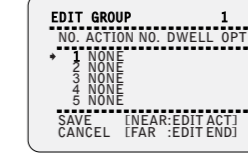
To setup a group, at least 1 preset, 1 scan, 1 pattern must be setup.



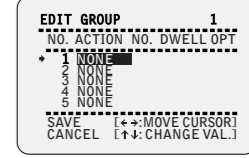
In the Root Menu, go to Function Setup> Group Setup



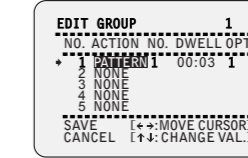
Select the Group you wish to modify. If a group is not defined, 'UNDEFINED' will be displayed as shown.



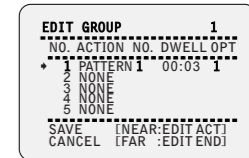
Select the first action in the group. Click with the mouse on the right side of the screen to enter edit mode.



Using the mouse, click on the top and bottom of the screen to scroll down the options. Select from Preset, Pattern, Scan. Click on the right side of the screen to save selection and move to the next tab to the right.



Using the mouse, continue editing the desired information. Enter the action's number, Dwell time between each action, and the number of repetitions under OPT.



When you finish setting up an ACTION, press Near or Enter key to one-upper-level menu. Move to the next action and repeat setup as necessary. When you have completed entering all desired actions, scroll near to save changes, or far to cancel all changes.

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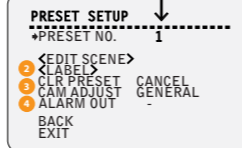
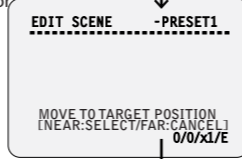
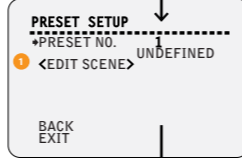
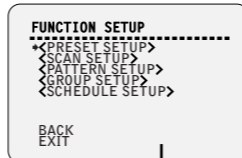
# PRESET SETUP

A preset is a pre-defined position for the camera. Setup 127 presets, excluding 95, which is reserved for menu access.

PRESET SETUP- UNIDENTIFIED.

If a selected preset is already defined, camera will move to the pre-defined position. If a selected preset is not defined, 'UNDEFINED' will appear.

- <EDIT SCENE>**  
Redefine the current preset scene position(i.e. PTZ).  
**TO EDIT THE PRESET'S SCENE**  
1. Using joystick, move camera to the desired position.  
2. Using your USB mouse, scroll the mouse's wheel forward to save, or backwards to cancel all changes.



PRESET SETUP- DEFINED PRESET

- <LABEL>**  
Edit a label for the selected preset. Max. 10 characters.

**CAM ADJUST**

- WB and AE can be set up independently for each preset.
- **GENERAL:** WB/ AE settings will follow the camera's setup for both options under 'ROOT MENU>CAMERA SETUP' menu.
- **SPECIAL:**  
- Each special WB/AE value will be activated when the camera runs the selected preset. During jog operation, general WB/AE value will be applied.  
- If 'SPECIAL' is selected, any changes made to the general camera settings for WB and AE will not apply to the preset's WB/ AE settings.

**ALARM OUT**

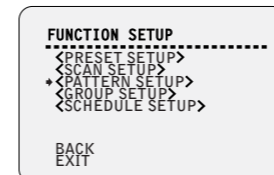
- Relay output can be linked with a specific preset run.  
' - 'means off, '1' means on.

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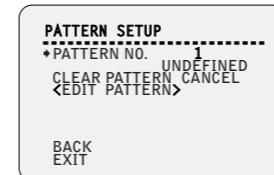
# PATTERN SETUP

Pattern function is when a camera memorizes the path (mostly curve path) created by a joystick controller and revives the path exactly as it memorized for an assigned time.

4 patterns are available and maximum 1000 communication commands can be stored in a pattern.



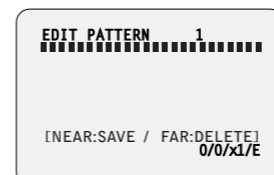
In the Root Menu, go to Function Setup> Pattern Setup



Select the pattern number you wish to setup. If a selected pattern is not defined, 'UNDEFINED' will be displayed as shown.



By using joystick, move the camera to the start position with appropriate zoom. Using the mouse's wheel, scroll near to save and start recording, or far to cancel all changes.



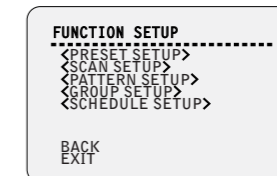
Move the camera using the Joystick controller or the computer mouse in the desired pattern. The total memory size is displayed in the form of a bar. Using the mouse's wheel, scroll bear to save pattern, or scroll far to cancel all changes.

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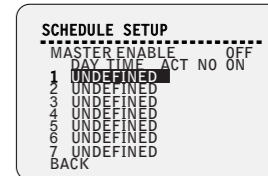
# SCHEDULE SETUP

The schedule function allows running an appropriate function like preset, scan, pattern, group, home move at designated day and time.

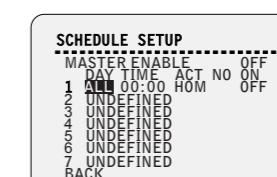
To setup a schedule, at least 1 Preset, 1 scan, 1 pattern, and 1 group should be setup.



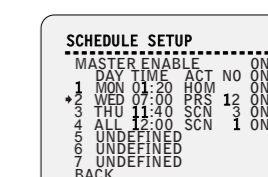
In the Root Menu, go to Function Setup> Schedule Setup



Select the schedule you wish to modify, and using the mouse's wheel, scroll near to enter Edit mode.



Select the days of the week you wish to run at that time. Select from All, WKD (Every day except Saturday and Sunday), or Sun~Sat. When you are done, click on the right corner of the screen to move to the next edit section.



Continue to edit the time of the day, the act you wish to run at that time (home, preset, pattern, scan, group), select the act no for a specific action. When you are complete, to enable the schedule select ON. Using the mouse's wheel, scroll near to save changes or far to cancel.

To enable the camera to start running the schedules, make sure the specific schedule is enabled, and also MASTER ENABLE on the top of the screen is ON.

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