The new 27x NitePlus PTZ module for the Pan, Tilt and Zoom ranges of domes.

Camera Instruction Manual.

Superior Auto Focus

Superior Backlight Compensation

1. OSD Navigation.

The way to navigate to the menu options is dependant on the model of PTZ that the module has been installed in.

1.1 The PTZ300 and PTZ500 Series.

When the module is installed in the PTZ300 and PTZ500 series the OSD menu is accessed by **CALL 57** from a keypad that is connected to the PTZ via RS485 comms. Navigation is done by the **TELE & WIDE** buttons and selection is made with the **NEAR & FAR** buttons.

To exit the OSD menu use **CALL 57** on the keypad.

1.2 The PTZ400 and PTZ600 Series.

When the module is installed in the PTZ400 and PTZ600 series the OSD menu is accessed by **CALL 63** from a keypad that is connected to the PTZ via RS485 comms.

This will enter the **CAMERA MODULE MENU** and navigation is done by the **TELE & WIDE** buttons and selection is made with the **NEAR & FAR** buttons.

To exit the menu press the **EXIT** button on the keypad.

NOTE: If using the PTZ700 keypad it will be necessary to enter the 63 CALL twice.

2. The module Menu Structure.

Once in the menu system of the camera module the following submenus are available.

2.1 The GENERAL Menu.

This menu is for configuring the following module settings;

- GENERAL
  - CAMERA ID (NUMERIC ID 0 TO 255)
  - LANGUAGE (ENGLISH OR KOREAN)
  - ZONE LABEL (10 DIGIT ALPHA NUMERIC LABEL WHICH WILL APPEAR ON THE BOTTOM LEFT OF SCREEN)
  - BACKLIGHT (NORMAL,C1,C2,L1,L2,U1,U2,D1,D2,R1,R2)
  - SHARPNESS (0 TO 15)
  - MIRROR (OFF OR ON)
  - PROTOCOL (NOT USED)
  - INITIAL (OFF OR ON)

CAMERA ID	A numeric identifying number between 0 and 255.
LANGUAGE	English or Korean.
ZONE LABEL	A ten digit alpha-numeric label which will appear on the OSD of the camera in the bottom left of the screen.
BACKLIGHT	Used to switch backlight compensation on or off. This can be used to improve image quality when the object viewed is dark or dim. This option allows the user to increase backlight compensation in the area in which the problem is occurring either the centre (C1,C2) the left (L1,L2) the right (R1,R2) the upper (U1,U2) the lower (D1,D2) or normal.
SHARPNESS	This adjusts the sharpness of the image from 0 (low) to 15 (high).
MIRROR	This option flips when ON changes the output of the image as if seen though a mirror.
PROTOCOL	Not used.
INITIAL	When switched ON this option will reset all of the options within the GENERAL menu back to their default setting.

2.2 The FOCUS menu.

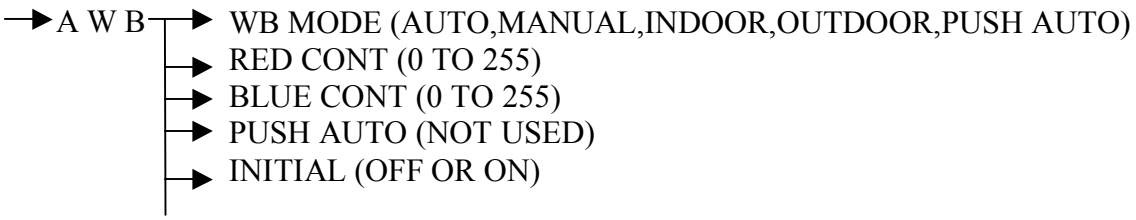
This menu is for configuring the following module settings;

- FOCUS
  - FOCUS MODE (AUTO OR MANUAL)
  - PUSH AUTO (OFF OR ON WHEN IN FOCUS MODE AUTO)
  - FOCAL DIST (4M,2M,130CM,80CM,50CM,10CM,1CM)
  - ZOOM START (x1 TO x27)
  - ZOOM END (x1 TO x270)
  - ZOOM SPEED (1 TO 3)
  - INITIAL (OFF OR ON)

FOCUS MODE	Set up of automatic focus option. This allows the user to control the adjustment of the focus automatically by the module (AUTO) or to allow the operator to adjust the focus manually using the NEAR & FAR buttons on the keypad (MANUAL).
PUSH AUTO	When set to ON the camera module will do a single push to focus the camera and will not try to refocus after the initial push (n.b. FOCUS mode must be set to auto to enable this option).
FOCAL DISTANCE	This option is to set the range of focus distance that the camera will focus to when performing an auto focus. The options are 4m, 2m, 130cm, 80cm, 50cm, 10cm and 1cm. For example if the focal distance is set to 50cm the module will try to focus within 50cm of the focused object.
ZOOM START	This option is the setting of the minimum zoom that the module will allow x1 to x27. For example if this is set to x5 the operator will not be able to use the x1 to x4 modes when using the WIDE & TELE buttons.
ZOOM END	This option is the setting of the maximum zoom that the module will allow x1 to x270. For example if this is set to x27 the operator will only be able to zoom to the limit of the optical zoom and not the digital zoom up to x270.
ZOOM SPEED	This setting is the speed of the modules zoom function 1 to 3 with 1 being the slowest and 3 the fastest.
INITIAL	When switched ON this option will reset all of the options within the FOCUS menu back to their default setting.

2.3 AWB (automatic white balance).

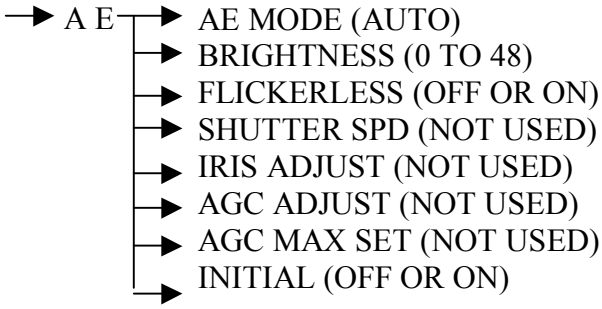
This menu is for configuring the following module settings;



WB MODE	This option is used to instruct the module of the environment in which it is installed and which mode to use to adjust the white balance of the image output. The options are AUTO, MANUAL, INDOOR, OUTDOOR or PUSH AUTO.
RED CONT	When the WB mode is set to MANUAL this option is used to control the amount of the RED image output by the module. Setting is from 0 (0% red) to 255 (100% red).
BLUE CONT	When the WB mode is set to MANUAL this option is used to control the amount of the BLUE image output by the module. Setting is from 0 (0% blue) to 255 (100% blue).
PUSH AUTO	Not used.
INITIAL	When switched ON this option will reset all of the options within the AWB menu back to their default setting.

2.4 A E (automatic exposure).

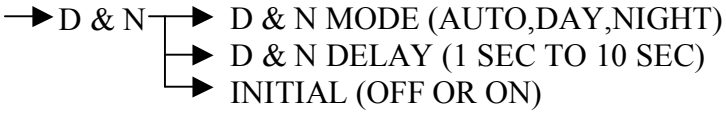
This menu is for configuring the following module settings;



AE MODE	Always set to AUTO.
BRIGHTNESS	This alters the brightness of the image output by the module from 0 to 48, where 0 is the darkest and 48 the brightest.
FLICKERLESS	This setting turns the flickerless mode ON or OFF.
SHUTTER SPEED	Not used.
IRIS ADJUST	Not used.
AGC ADJUST	Not used.
AGC MAX SET	Not used.
INITIAL	When switched ON this option will reset all of the options within the AE menu back to their default setting.

2.5 D & N (day and night).

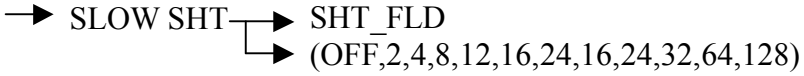
This menu is for configuring the following module settings;



D & N MODE	This option is used to set the module to either switch automatically between day and night mode depending on the level of light available. (AUTO) sets colour during the day and switches to black and white at night, (DAY) stays in colour and (NIGHT) stays in black and white.
D & N DELAY	This setting allows you to determine the time delay of the switch over from day to night mode, or night to day mode, once the switching point has been reached. 1 to 10 seconds.
INITIAL	When switched ON this option will reset all of the options within the D & N menu back to their default setting.

2.6 SLOW SHT (slow shutter).

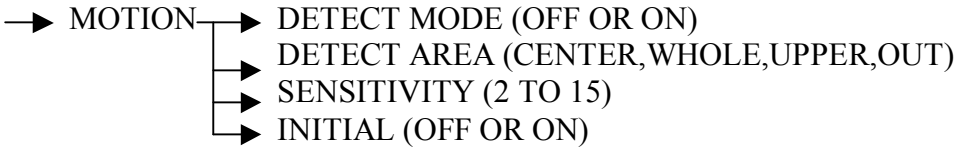
This menu is for configuring the following module settings;



SHT_FLD	This setting allows the module to slow the shutter speed down or to turn the slow shutter off. The range of shutter speeds range from 2 to 128.
INITIAL	When switched ON this option will reset all of the options within the SLOW SHT menu back to their default setting.

2.7 MOTION (motion detection).

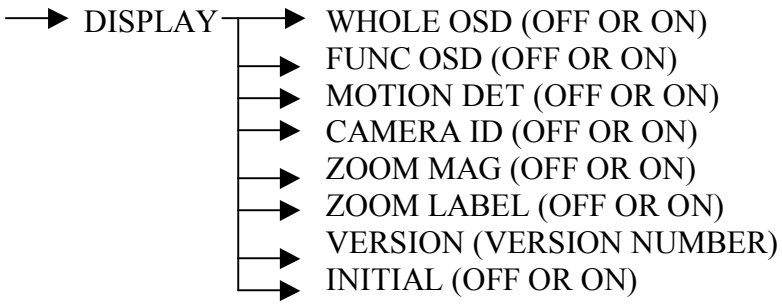
This menu is for configuring the following module settings;



DETECT MODE	This option turns the motion detection system ON or OFF. When this system is turned on, the module will display the text MD on the screen when motion detection is triggered.
DETECT AREA	This setting determines which area of the image to trigger the motion detection system on. For example if set to UPPER the module will trigger only if movement is detected in the upper area of the image. Options are CENTER, WHOLE, UPPER and OUTER.
SENSITIVITY	This setting determines the sensitivity of the trigger of the motion detection system, with 2 being the lowest and 15 being the highest sensitivity.
INITIAL	When switched ON this option will reset all of the options within the MOTION menu back to their default setting.

2.8 DISPLAY.

This menu is for configuring the following module settings;



WHOLE OSD	When this is set to ON the module will overlay all of the parameters listed below on to the output image.
FUNC OSD	When this is set to ON the module will overlay the function parameter on the output image.
MOTION DET	When this is set to ON the module will overlay the motion detected on the output image if the motion detection system is triggered.
CAMERA ID	When this is set to ON the module will overlay the camera id (which is set from the GENERAL menu) on the output image.
ZOOM MAG	When this is set to ON the module will overlay the current zoom magnification on the output image.
VERSION	This is a display of the firmware version the module is using.
INITIAL	When switched ON this option will reset all of the options within the DISPLAY menu back to their default setting.

2.9 INITIAL.

INITIAL SET	This menu is for resetting the module back to the factory default settings by turning this setting ON.

Technical Specifications

Signal System	PAL
Scanning System	2:1 Interface
Scanning Frequency (H)	15.625kHz
Scanning Frequency (V)	50Hz
Image Sensor	¼" Sony Super HAD CCD
Sync. System	Internal
Total Pixels	795(H) x 596(V) 470K
Effective Pixels	752(H) x 582(V) 440K
Horizontal Resolution	500TVL
Video Output Level	1.0v p~p (75Ω, Composite)
S/N Ratio	More than 48dB (AGC Off)
Digital Zoom Ratio	10 x
Lens	27 x zoom Video AF (F1.6(W), F3.2(T) f=3.6 ~ 97.2mm)
Minimum Illumination	Day Mode 1 Lux (30IRE) Night Mode 0.5 Lux (30IRE) DSS 0.001 Lux (128FLD, 30IRE)
Day & Night System	IR Cut Filter & Digital Slow Shutter
White Balance	Auto/Push Auto/Outdoor/Indoor/Special
AGC	Auto/Manual (0~255)
Backlight Compensation	9 Backlight Compensation Zones
Flickerless	On/Off
Digital Slow Shutter	2 FLD ~ 128 FLD / Off
OSD Menu	On / Off
Focus Mode	Auto / Manual
Input Output Connections	Power: 2 Pin Terminal RS485: 2 Pin Circle Connector PTZ Control: 3 Pin Circle Connector Video Output: BNC Connector
Electronic Shutter Speed	1/50 ~ 1/10,000s (Manual, 8 steps)
Supplied Voltage	12v DC
Power Consumption	Max 4.56W / 380mA
Dimensions	48(W) x 51.5 (H) x 86.6 (D) mm
Weight (Net)	Approximately 250g