The 22x IR PTZ module for the Pan, Tilt and Zoom ranges of domes.

Camera Instruction Manual.

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 95** from a keypad that is connected to the PTZ via RS485 comms.

This will enter the menu system of the PTZ. Go to the **CAMERA MENU**, navigation is done by the joystick **UP & DOWN** and selection is made by moving the joystick **RIGHT.** Once in the camera menu go to the **MENU OF CAM** option and move the joystick **RIGHT**. Now you are in the module menu, navigation is done by the **TELE & WIDE** buttons and selection is made with the **NEAR & FAR** buttons.

To exit the OSD menu press the **CLOSE** button on the keypad.

2. The module Menu Structure.

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

2.1 The FOCUS Menu.

This menu is for configuring the following module settings;

```
FOCUS SET ──┬──► FOCUS MODE (AUTO,PUSH AUTO,MANUAL)
            ├──► FOCUS DIST (1CM,10CM,50CM,1M,3M,5M,10M)
            ├──► ZOOM START (x1 TO x21)
            ├──► ZOOM END (x2 TO x352)
            ├──► ZOOM SPEED (SLOW,NORMAL,HIGH)
            ├──► ZOOM TRACK (NOT USED)
            └──► INITIAL SET (OFF OR ON)
```
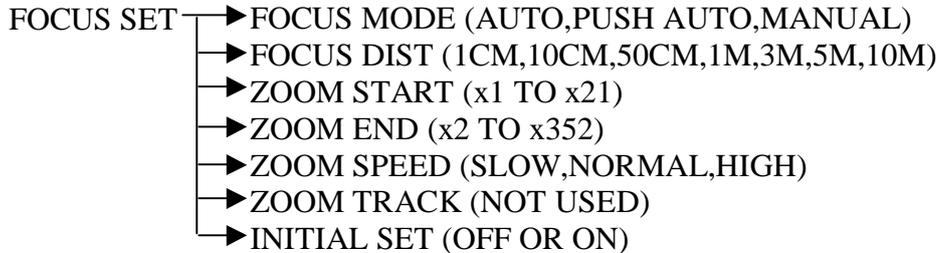

FOCUS MODE   Set up of automatic focus option. This allows the user to
                    control the adjustment of the focus automatically by the module
                    (AUTO) or when set to (PUSH AUTO) the camera module will
                    do a single push to focus the camera and will not try to refocus
                    after the initial push or to allow the operator to adjust the focus
                    manually using the NEAR & FAR buttons on the keypad
                    (MANUAL).

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
                    10m, 5m, 3m, 1m, 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. Note that if a tour or autoscan is
                    used then set distance to 5m or 10m otherwise the unit will not
                    have time to focus.

ZOOM START   This option is the setting of the minimum zoom that the module
                    will allow x1 to x21. 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 x2 to x352. For example if this is set to x22
                    the operator will only be able to zoom to the limit of the optical
                    zoom and not the digital zoom up to x352.

ZOOM SPEED   This setting is the speed of the modules zoom function.

INITIAL   When switched ON this option will reset all of the options
                    within the FOCUS SET menu back to their default setting.

2.2 AWB SET (automatic white balance).

This menu is for configuring the following module settings;

AWB SET ── WB MODE (AUTO,PUSH AUTO,MANUAL,OUTDOOR,INDOOR,HUE CONTROL)
── HUE CONTROL (0 TO 99 WHEN WB MODE IS SET TO HUE CONTROL)
── RED GAIN (0 TO 255 WHEN WB MODE IS SET TO MANUAL)
── BLUE GAIN (0 TO 255 WHEN WB MODE IS SET TO MANUAL)
── PUSH AUTO (OFF OR ON WHEN WB MODE IS SET TO PUSH AUTO)
── INITIAL SET (OFF OR ON)

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, PUSH AUTO, MANUAL, INDOOR, OUTDOOR or HUE CONTROL.
HUE CONTROL	Hue control is used to alter the definition of the colour on the image from 0 to 99. This can only be used when WB MODE is set to HUE CONTROL.
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	Used to select PUSH AUTO mode when WB MODE is set to PUSH AUTO.
INITIAL	When switched ON this option will reset all of the options within the AWB menu back to their default setting.

2.3 A E SET(automatic exposure).

This menu is for configuring the following module settings;

── AE MODE (AUTO,MANUAL,AGC MAN,IRIS MAN)
── IRIS ADJUST (56 TO 250 WHEN AE MODE IS SET TO MANUAL OR IRIS MAN)
── AGC MAXIMUM (28 TO 255)
── BRIGHTNESS (0 TO 99)
── BACKLIGHT (OFF, SUPER, AUTO, ON)
── BLC LEVEL (0 TO 80)
── BLC AREA (CENTER,RIGHT,LEFT,BOTTOML,BOTTOMS,TOPL,TOPS)
── FLICKERLESS (OFF OR ON)
── SHUTTER (NORMAL OR 1/125 TO 1/30000)
── INITIAL SET (OFF OR ON)

AE MODE   This option is used to select the exposure mode to be used by
                       the camera. The options are AUTO, MANUAL, AGC MAN
                       and IRIS MAN. When the AUTO mode is selected then the
                       module will automatically adjust the iris and automatic gain
                       control (AGC). When in MANUAL the iris and AGC will
                       adjust to the user presets as defined below. When set to AGC
                       MAN the iris control will be set automatically but the AGC
                       will adjust only up to the AGC MAXIMUM level defined
                       below. When set to IRIS MAN the AGC control will be done
                       by the module automatically but the iris will adjust to the IRIS
                       ADJUST defined below.

IRIS ADJUST   When the AE MODE is set to MANUAL or IRIS MANUAL
                       this is used to open and close the iris manually from 56 to 250.

AGC MAXIMUM   This option is used to adjust the maximum limit of the
                       automatic gain control (AGC) from 28 to 255, when the AE
                       MODE is set to MANUAL or AGC MAN.

BRIGHTNESS   This alters the brightness of the image from 0 to 99, where 0 is
                       the darkest and 99 the brightest.

BACKLIGHT   When there is strong backlight behind the object, clear images
                       of the background and object can still be obtained by using the
                       BACKLIGHT function. The options are OFF, ON, AUTO and
                       SUPER.

BACKLIGHT AREA This option lets the camera know the position where the strong
                       backlight is.

FLICKERLESS   This mode of operation of a camera eliminates flicker, and
                       therefore potential "movement" detected by a camera or DVR.
                       This option turns the FLICKERLESS mode on or off.

SHUTTER   This option allows the module to run on a slow shutter speed.
                       The options are NORMAL or 1/125 to 1/30000.

INITIAL   When switched ON this option will reset all of the options
                       within the AE menu back to their default setting.

2.4 SPECIAL SET.
This menu is for configuring the following module settings;

SPECIAL SET ──▶ USER TITLE (10 DIGIT ALPHA NUMERIC LABEL)
            ──▶ SHARPNESS (0 TO 15)
            ──▶ NEGATIVE (OFF OR ON)
            ──▶ WIDE BURST (OFF OR ON)
            ──▶ INITIAL SET (OFF OR ON)

USER TITLE	A ten digit alpha-numeric label which will appear on the OSD of the camera in the bottom left of the screen.
SHARPNESS	This adjusts the sharpness of the image from 0 (low) to 15 (high).
NEGATIVE	This option will output a negative image when turned ON.
INITIAL	When switched ON this option will reset all of the options within the SPECIAL menu back to their default setting.

2.5 F OSD DISP (On Screen Display).

This menu is for configuring the following module settings;

```
F OSD DISP ──┬──► FUNCTION (DISP OFF OR DISP ON)
             ├──► CAMERA ID (DISP OFF OR DISP ON)
             ├──► ZOOM MAG (DISP OFF OR DISP ON)
             ├──► USER TITLE (DISP OFF OR DISP ON)
             ├──► INIT TITLE (DISP OFF OR DISP ON)
             └──► INITIAL SET (OFF OR ON)
```
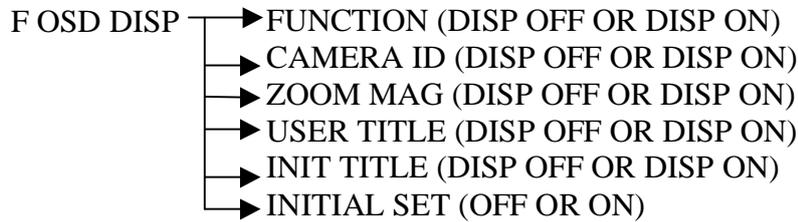
FUNCTION	When this is set to ON the module will overlay the function parameter on the output image.
CAMERA ID	When this is set to ON the module will overlay the camera id on the output image.
ZOOM MAG	When this is set to ON the module will overlay the current zoom magnification on the output image.
USER TITLE	When this is set to ON the module will overlay the USER TITLE (which is set from the SPECIAL menu) on the output image.
INIT TITLE	When this is set to ON the module will overlay the USER TITLE when the ptz is initialising.
INITIAL	When switched ON this option will reset all of the options within the OSD DISP menu back to their default setting.

2.6 DAY/NIGHT (day and night).

This menu is for configuring the following module settings;

```
DAY/NIGHT ──┬──► D/N MODE (AE,EXT,NIGHT,DAY,CDS)
            ├──► CDS LEVEL (0 TO 255 WHEN D/N MODE IS SET TO CDS)
            ├──► FILTER DELAY (1 TO 15)
            └──► INITIAL SET (OFF OR ON)
```
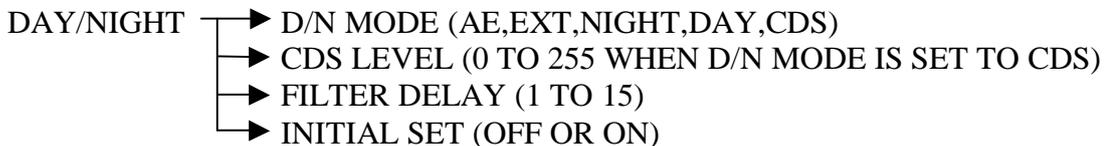
D & N MODE   This option is used to set the module to either switch automatically between day and night mode depending on the level of light available. (AUTO) sets colour during the day and switches to black and white at night. CDS mode will allow the user to define the point at which the module will switch between day and night. DAY makes the module stay in colour mode and NIGHT makes the module stay in black and white mode.

CDS LEVEL   Cadmium Sulphide (CdS) cells rely on the materials ability to vary its resistance according to the amount of light striking the cell. The CdS level from 0 to 255, will alter the point of which the module switches between day and night mode when the D & N mode is set to CDS.

FILTER 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 15 seconds.

INITIAL   When switched ON this option will reset all of the options within the D & N menu back to their default setting.

2.7 INITIAL.

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