GE
Security

UVD-XP3DNR(-P) Camera User Manual

REV 01.00 • ISS 02SEP09

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Preface

This is the UVD-XP3DNR(-P) Camera. This document includes an overview of the product and detailed instructions explaining:

- how to connect the camera; and
- how to program the camera.
- how to adjust the camera angle and focus

To use this document effectively, you should have the following minimum qualifications:

- a basic knowledge of CCTV systems and components; and
- a basic knowledge of electrical wiring and low-voltage electrical connections.

Note: A qualified service person, complying with all applicable codes, should perform all required hardware installation.

Safety terms

These terms may appear in this manual:

CAUTION: Cautions identify conditions or practices that may result in damage to the equipment or other property.

WARNING: Warnings identify conditions or practices that could result in equipment damage or serious personal injury.

Product description

The UVD-XP3DNR(-P) (rugged dome) color video cameras is a 24 VAC/12 VDC model. The cameras are equipped with a digital signal processor (DSP) for processing the video signal.

Features

Camera features include:

- Next-generation XPosure technology.
- Improved low-light performance and color balance.
- 540 TVL lines color.
- Dynamic range 95 dB (typical), 120 dB (maximum).
- Preset modes optimized for various environments.
- Onscreen display interface.

User guidelines

Use the following guidelines:

- Program as many camera settings as possible before mounting the camera. Take appropriate safety precautions while completing programming after installation.
- Always use a 12 VDC or 24 VAC UL listed Class 2 power supply to power the camera.

  Do not use the camera outside the temperature range specifications: -57 to 122°F (-50 to +50°C).
- If the light source where the camera is installed experiences rapid, wide-variations in lighting, the camera may not operate as intended.

WARNING: To reduce the risk of fire or electronic shock, do not expose the camera to rain or moisture and do not remove the cover or back.

Components

Figure 1 shows the main components of the rugged dome unit.

Figure 1: Rugged dom2e unit

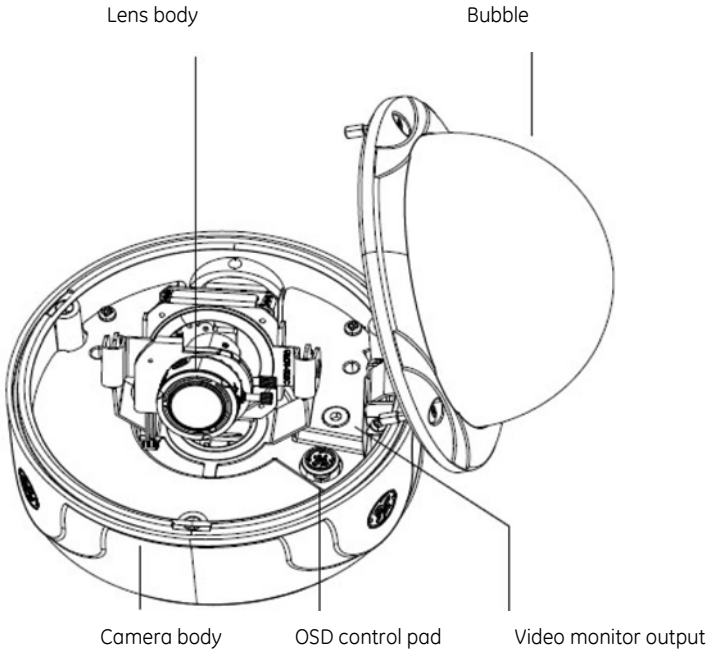
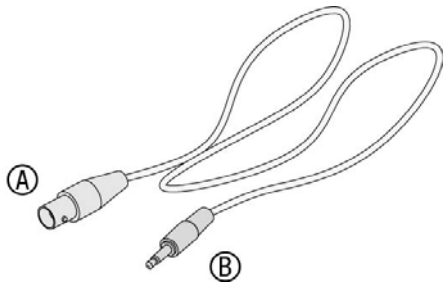


Figure 3 shows the monitor output components.

Figure 2: Monitor output cable



A. Monitor output BNC

B. Monitor output RCA

Plug the monitor output RCA into the video monitor output and connect the monitor output BNC to the TV monitor.

OSD control pad

The onscreen display (OSD) control pad (Figure 4) is a five-direction joystick that provides the ability to manually control the camera functions. Table 1 below lists the OSD control pad functions and describes their use.

Figure 3: OSD control pad

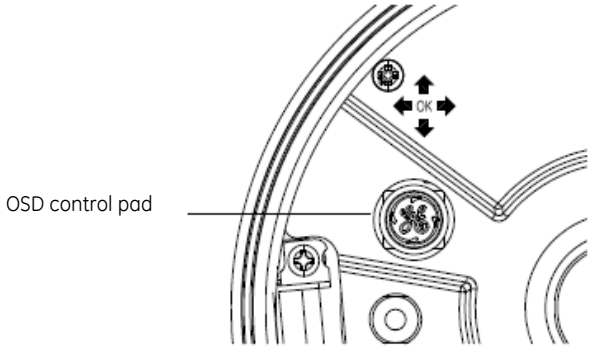


Table 1: OSD control pad controls

Pad directions	Description
Up	Moves the cursor upward to select an item
Left	Moves the cursor left to select or adjust the parameters of the selected item.
Right	Moves the cursor to the right to select or adjust the parameters of the selected item.
Down	Moves the cursor downward to select an item.
Enter	Press the center of the control pad to display the *Setup menu*. If the selected item has its own menu, press the control pad to enter a submenu. Press the control pad for 2 seconds to save all settings and exit the *Setup menu*.

Installation

This chapter provides information on how to install the camera and adjust camera angle and focus.

To install the camera you will need to prepare the mounting surface, make cable connections, and mount the camera.

Cable connection

To make cable connections, do the following:

1. Connect a coaxial cable from the camera's BNC connector to a CCTV monitor or video recording device.
2. Connect a 12 VDC or 24 VAC power supply to the power input. The label on the camera gives the following information:

   Red cable. Power in.

   Black cable. Power in.

   White cable. Video out.

   Black cable. Video ground.

Note: For AC24V or DC12V, Black or Red may be used for ground.

Camera installation

To mount the camera, attach the camera to the mounting surface using the appropriate fasteners.

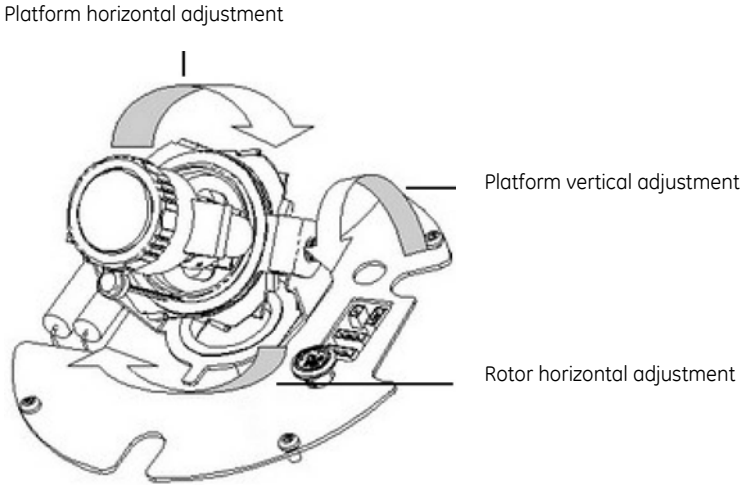
Angle adjustment

To adjust the horizontal angle of the platform up to 180 degrees, turn the platform (Figure 4 on page 8).

To adjust the horizontal angle of the rotor up to 350 degrees, turn the rotor on the platform (Figure 4 on page 8).

To adjust the vertical angle of the platform up to 90 degrees, turn the platform (Figure 4 on page 8).

Figure 4: Camera adjustment

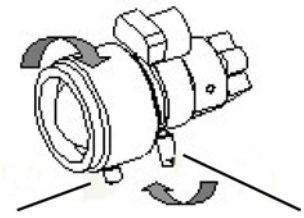


Focus adjustment

To adjust the camera zoom and focus, see Figure 6 and do the following:

1. Loosen the zoom ring thumbscrew.
2. Turn the zoom ring to set the desired zoom.
3. Tighten the zoom ring thumbscrew.
4. Loosen the focus ring thumbscrew.
5. Turn the focus ring to set the desired focus.
6. Tighten the focus ring thumbscrew.

Figure 5: Zoom and focus adjustment



Zoom ring thumbscrew for VA2 and focus ring for VA9 lens

Focus ring thumbscrew for VA2 and zooming ring for VA9 lens

Connect the monitor

Program the cameras by attaching a standard video monitor to the system.

To connect the monitor, do the following:

1. Plug the monitor output cable (Figure 2 on page 5) to the video monitor output connector (Figure 1 on page 5).
2. Connect the BNC cable to the video monitor.
3. Press Enter (see OSD control pad on page 9) to display the Setup menu.

Programming

This chapter describes how to navigate the programming menus to adjust the camera settings.

Navigation

To access and navigate the menus, press and hold the center of the OSD control pad (Figure 4 on page 7). Press Up or Down on the control pad to move between items, and press Enter (center of the control pad) to select the item. Press Right or Left on the control pad to select the different options available for the item.

You can return to the previous menu from any of the menus (except the Main menu) by selecting the *Previous page* option.

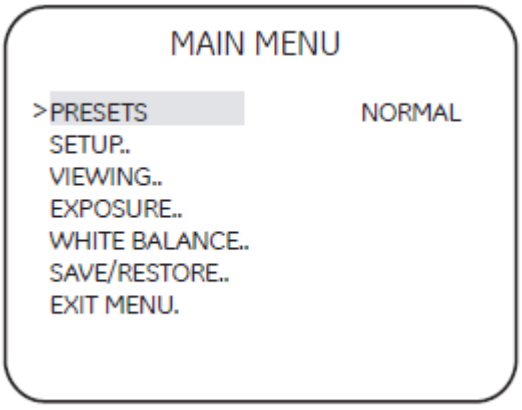
Main menu

The Main menu (Figure 7) provides the following options:

- "Presets menu" en page 10.
- "Setup menu" en page 10.
- "Viewing menu" en page 14.
- "Exposure menu" en page 14.
- "White balance menu" en page 15.
- "Save/restore menu" en page 15.
- Exit menu (exits the menu system).

There is a menu map provided on the back page of the manual.

Figure 6: Main menu



Presets menu

The Presets menu options include:

Normal. This is the camera default preset for general lighting conditions out of the box. This mode supports 14 bits of dynamic range and gives priority to rendering the highlights in the scene.

Indoor. This preset supports 16 bits of dynamic range and gives priority to rendering the shadows in the scene.

Outdoor. This preset offers the highest dynamic range of 17 bits and gives priority to rendering the highlights in the scene.

Flickerless. This mode uses line lock to eliminate phase roll under fluorescent lights. It must be used with a 24 VAC power supply.

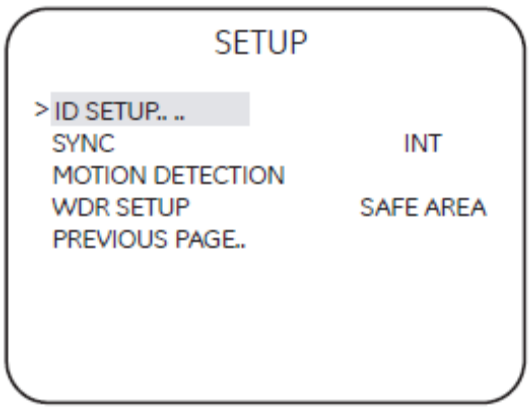
NTSC50Hz. This mode uses a DC iris lens to reduce phase roll under fluorescent lights. This mode will not function correctly with a manual iris lens.

Setup menu

The Setup menu (Figure 8) provides the following options:

- "Camera ID setup menu" più sotto.
- "Sync menu" en page 11.
- "Motion detection setup" en page 11.
- WDR setup (safe area, center spot, lower 1/3, or full screen).

Figure 7: Setup menu

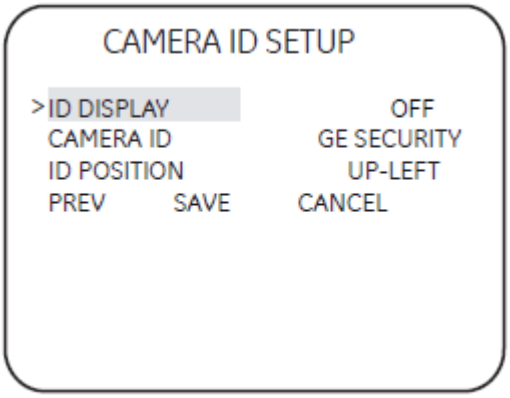


Camera ID setup menu

The Camera ID setup menu (Figure 9) provides the following options:

- **ID display** (off or on).
- **Camera ID**. Press Right to move the cursor to edit the camera ID. Press Up or Down to select the ID. When complete, press Up or Down to leave the editing field.
- **ID position** (up-left, up-center, up-right, down-left, or down-left).

Figure 8: Camera ID setup



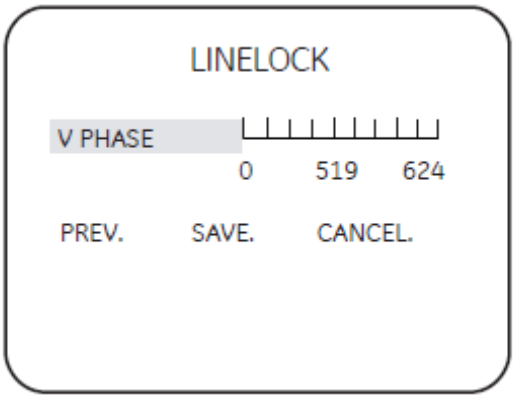
Sync menu

The SYNC option in Setup menu (Figure 8 on page 19) provides the following INT or LL (LINE LOCK) options:

INT. Internal sync. Used with DC power input to reduce the phase roll of fluorescent lights.

LL. Line lock. Used to sync video for AC power input so that the sync matches the frequency of the power input to eliminate the roll caused by fluorescent lights. (Figure 10)

Figure 9: LineLock menu

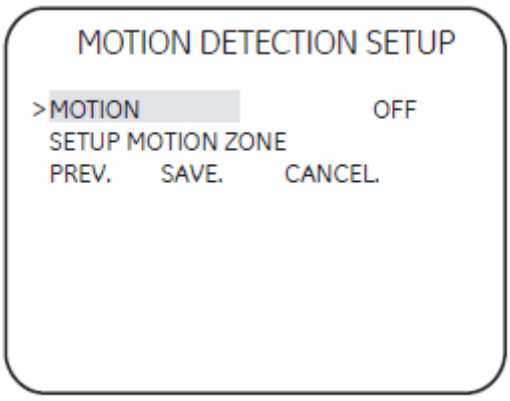


Motion detection setup

The Motion detection setup display (Figure 10 on page 12) provides the following options:

- “Motion options” en page 12.
- “Setup motion zone” en page 13

Figure 10: Motion detection zone setup

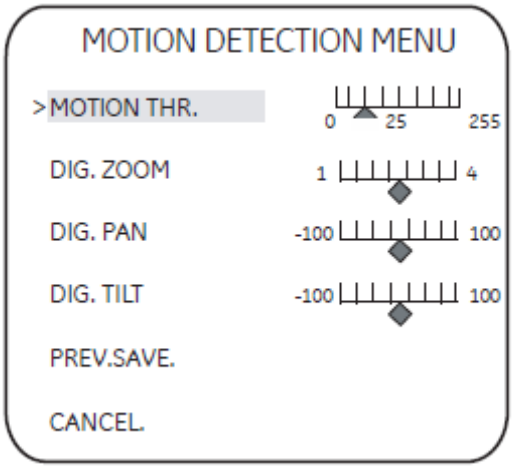


Motion options

Off. Motion detection is disabled.

Motion det. Motion detection is enabled, with default motion settings. Enter the submenu (Figure 11 below) to change the settings (see "Motion detection menu" below). When motion is detected, the word "Alarm" is displayed on the top left of the screen, and the image is zoomed, tilted, and panned to the area setup in Setup alarm zone.

Figure 11: Motion detection menu



Motion detection menu

The Motion detection menu (Figure 11 above) provides the following options:

- **Motion Threshold**. Set the level of sensitivity of the motion detection.
- **Digital zoom**. Determine how far in the camera zooms upon alarm. By default, the camera zooms to the center of the screen.
- **Digital pan.** Adjust where the camera zooms upon alarm. Move the slider to the left to pan left, and to the right to pan right.

- **Digital tilt.** Adjust where the camera zooms upon alarm. Move the slider to the left to tilt down, and to the right to tilt up.

Setup motion zone

The camera will monitor for motion in the area defined in the boxes defined in this submenu (Figure 12 below). When motion is detected in this area, the camera issues an alarm and zooms in.

Figure 12: Motion zone setup

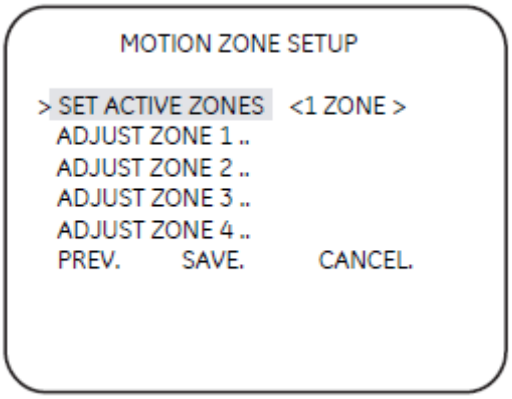
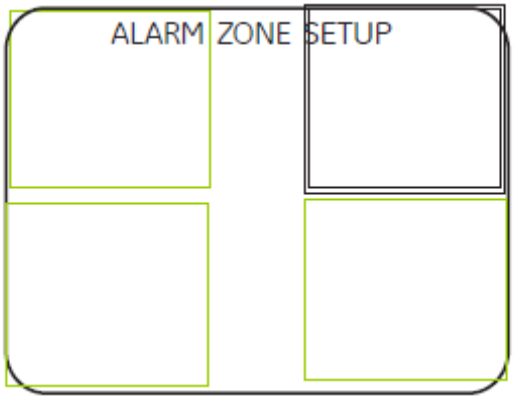


Figure 13: Alarm zone setup



To set up the alarm zone, do the following:

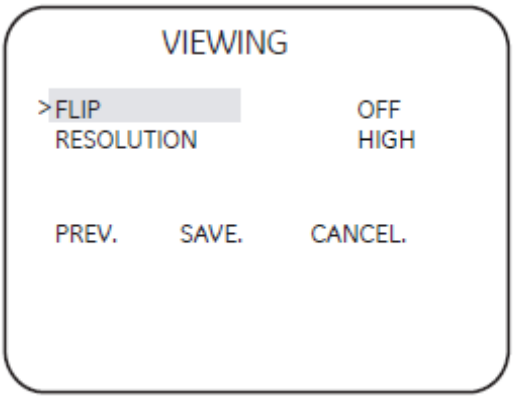
1. Choose one of the options Adjust Zone 1/2/3/4 from the Setup Motion Zone menu (Figure 12 above). The selected zone will have a thick border and be highlighted in white. Press the arrow keys to change the selected zone (Figure 14).
2. Press Enter. The selected zone becomes green. Press the arrow keys to increase the zone area.
3. Press Enter. The selected zone becomes red. Press the arrow keys to shrink the zone area.
4. Press Enter for a few moments to leave the Alarm Zone Setup menu and return to Motion Zone Setup menu.

Viewing menu

The Viewing menu (Figure 14 below) provides the following options:

- **Flip**. (OFF, HORIZ, VERT, BOTH) Turn horizontal flip off or on.
- **Resolution**. (HIGH, NORMAL) High or normal. The High option over-sharpens the image for higher resolution.

Figure 14: Viewing menu

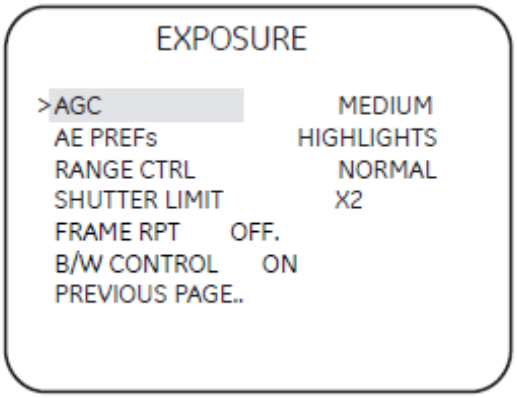


Exposure menu

The Exposure menu (Figure 15 below) provides the following options:

- **AGC** (medium, high, custom, or low). The camera automatically adjusts the image quality in low light conditions.
- **AE** preferences (highlights or shadows).
- **Range control** (low, normal, high, or custom).
- **Shutter limit** (x2, x4, x8, x16, x32, or off). A fast shutter speed captures clear images of fast action.
- **Frame RPT** (OFF/ON).
- **B/W Control** (OFF/ON).

Figure 15: Exposure menu

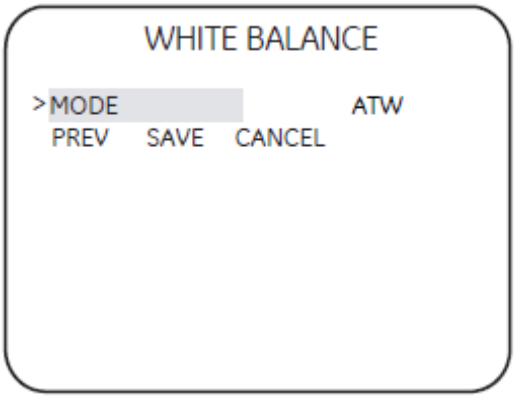


White balance menu

The White balance menu (Figure 16 below) provides the following options:

- **Mode (ATW or PTL)**. ATW mode is automatic trace white balance. In PTL mode you can set a specific white balance.

Figure 16: White balance menu



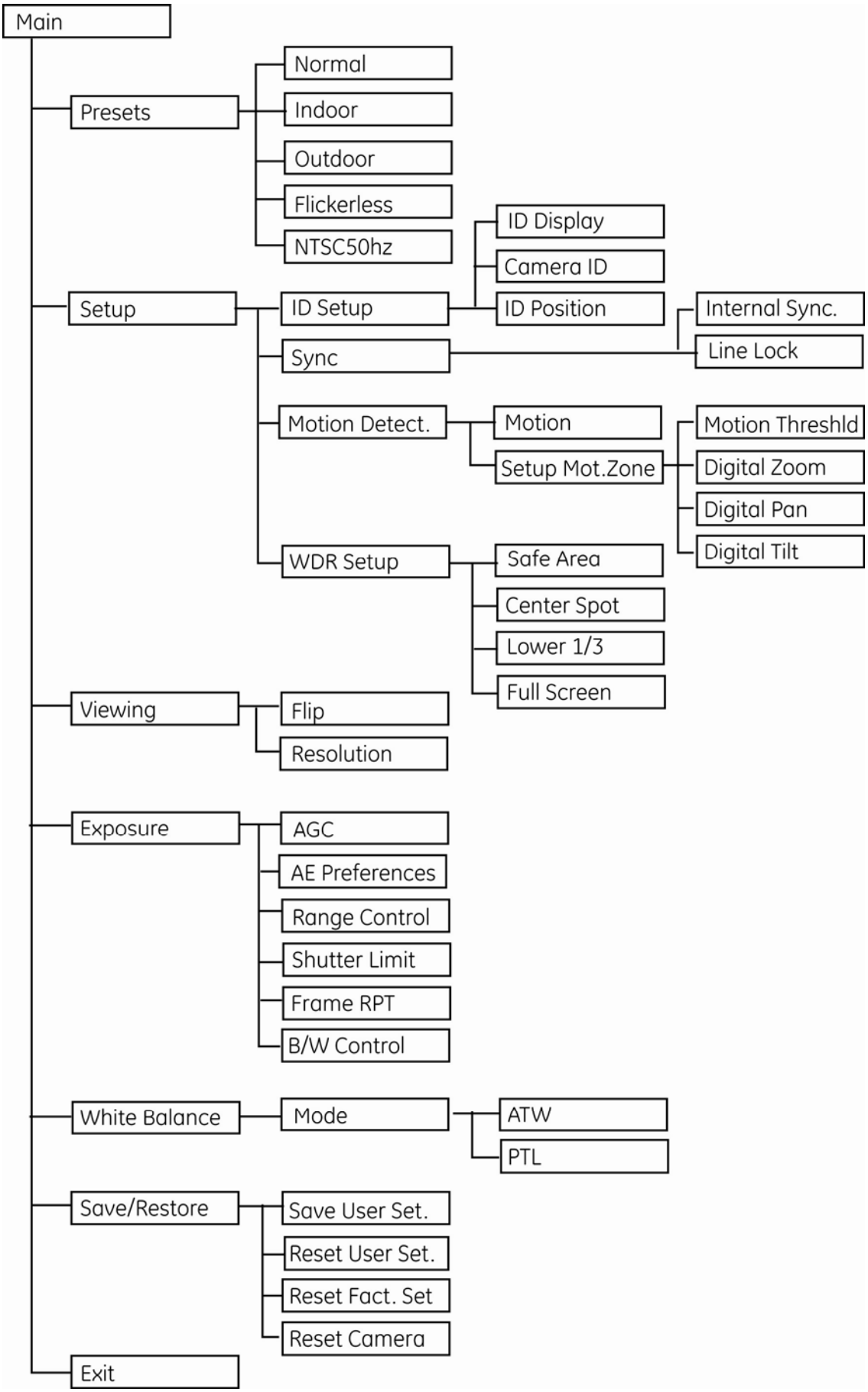
Save/restore menu

The Save/restore menu (Figure 17 below provides the following options:

- **Save user settings**. Saves all current changes.
- **Restore user settings**. Discards all current changes.
- **Restore factory settings**. Resets all settings to factory levels.
- **Reset camera**. Resets the camera.

Figure 17: Save/restore menu

Menu Map


Main
Presets
Normal
Indoor
Outdoor
Flickerless
NTSC50hz
Setup
ID Setup
ID Display
Camera ID
ID Position
Sync
Internal Sync.
Line Lock
Motion Detect.
Motion
Motion Threshld
Setup Mot.Zone
Digital Zoom
Digital Pan
Digital Tilt
WDR Setup
Safe Area
Center Spot
Lower 1/3
Full Screen
Viewing
Flip
Resolution
Exposure
AGC
AE Preferences
Range Control
Shutter Limit
Frame RPT
B/W Control
White Balance
Mode
ATW
PTL
Save/Restore
Save User Set.
Reset User Set.
Reset Fact. Set
Reset Camera
Exit