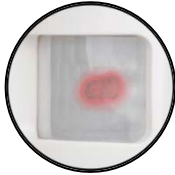# ENFORCER®

OSD (On-Screen Display)
for Covert PIR Camera
Manual

EV-6680 Series
Motion-activated LED programmable from the OSD menu, simulating a real PIR sensor.

EV-6681 Series
Invisible 940nm IR LEDs provide infrared light for the camera but are invisible to the human eye.

For the following cameras:

Model	Format	Programmable Motion-Activated LED	Covert IR LEDs
EV-6680-N3WQ	NTSC	Yes	No
EV-6680-P3WQ	PAL	Yes	No
EV-6681-N3WQ	NTSC	No	Yes
EV-6681-P3WQ	PAL	No	Yes

SECO-LARM® SLI

FC CE RoHS

Table of Contents:

Programmable Features:

HLC OFF

D-WDR OFF

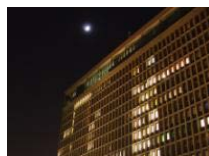2D-NR OFF
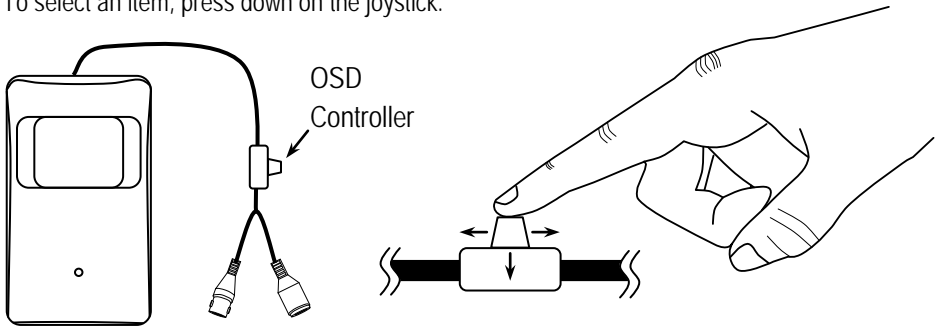

HLC ON

D-WDR ON

2D-NR ON

- **Lens**
  Choose between DC Auto Iris and Manual Lens Adjustment

- **Shutter**
  Manually adjust the shutter speed

- **White Balance**
  Adjust the color temperature and image color of the picture

- **Backlight Compensation (BLC)**
  Adjust the exposure to properly display the subject in front of a bright light source

- **Highlight Compensation (HLC)**
  Define target areas and remove spotlights to make certain objects visible

- **Picture Adjustment**
  Adjust the camera's brightness, contrast, sharpness, hue, and gain

- **Digital Wide Dynamic Range (D-WDR)**
  Adjust the brightness values of the image for a more detailed picture

- **Motion Detection**
  Detect if there is motion in the scene

- **Day/Night Mode**
  Adjust the level where the camera will switch from color to B/W when the ambient light is low

- **2D Noise Reduction (NR)**
  Adjust for less interference on the screen in an area with low illumination

- **Camera ID**
  Set a name for the camera to display on screen

- **Language**
  Set the OSD language

Please read the camera installation manual for safety precautions and detailed instructions on how to install the camera.

How to Use the OSD Controller:

1. Press down on the joystick to open the OSD menu.
2. Use the joystick to navigate the OSD menu.
3. To select an item, press down on the joystick.

OSD
Controller

Main Setup Menu:

Menu items can be selected by using the joystick.

1. Press down on the joystick.
   The Main Setup Menu will be displayed on the monitor.
2. Move to and select the required function by moving the joystick up and down.
3. Change the menu setting by moving the joystick left and right.
4. After choosing the setting, move the cursor to EXIT and press down on the joystick.

```
SETUP MENU

LENS          MANUAL
SHUTTER/AGC   AUTO ↵
WHITE BAL     PUSH
BACKLIGHT     OFF
PICT ADJUST   ↵
D-WDR         OFF
MOTION DET    OFF
NEXT ↵
EXIT ↵        SAVE ALL
```

Menu Diagram 1

```
SETUP MENU

PRIVACY       OFF
DAY/NIGHT     EXT1
NR            ↵
CAMERA ID     OFF
SYNC          INT
LANGUAGE      ENGLISH
CAMERA RESET
BACK ↵
EXIT ↵        SAVE ALL
```

Menu Diagram 2

Note:

- Select available options by moving the cursor to the desired feature.
- A submenu is available where the option reads ↵.
- SYNC SETUP cannot be altered. SYNC SETUP is set to internal synchronization mode.

Menu Diagram 1:

SETUP MENU	SETTING	SETTING OPTIONS
1) LENS (see page 5)	AUTO	TYPE: DC / VIDEO MODE: AUTO / OPEN / CLOSE SPEED: 0~255 Adjustable range
	MANUAL	Set for fixed lens camera
2) SHUTTER / AGC (see page 6)	AUTO	High Luminance: MODE[1]: SHUT + AUTO IRIS / AUTO IRIS / SHUT BRIGHTNESS: 0~255 Adjustable range Low Luminance: MODE: AGC / OFF BRIGHTNESS: x0.25, x0.50, x0.75, x1.00
	MANUAL	MODE: SHUT + AGC SHUTTER: 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000 AGC: 6.00, 12.00, 18.00, 24.00, 30.00, 36.00, 42.00, 44.80
3) WHITE BAL (see page 7)	ATW	SPEED: 0~255 Adjustable range DELAY CNT: 0~255 Adjustable range ATW FRAME: x.050, x1.00, x1.50, x2.00 ENVIRONMENT: INDOOR / OUTDOOR
	PUSH	Disable white balance mode
	USER1	B-Gain: 0~255 Adjustable range R-Gain: 0~255 Adjustable range
	USER2	B-Gain: 0~255 Adjustable range R-Gain: 0~255 Adjustable range
	ANTI CR	Enable anti-color rolling
	MANUAL	LEVEL: 26~72 Adjustable range
	PUSH LOCK	Disable white balance mode by pressing ENTER ↵
4) BACKLIGHT (see page 8)	OFF	Disable backlight compensation
	BLC	Enable backlight compensation
	HLC	Enable highlight compensation
5) PICT ADJUST (see page 8)	MIRROR	ON / OFF
	BRIGHTNESS	0~255 Adjustable range
	CONTRAST	0~255 Adjustable range
	SHARPNESS	0~255 Adjustable range
	HUE	0~255 Adjustable range
	GAIN	0~255 Adjustable range
6) D-WDR (see page 9)	ON	LUMINANCE: LOW / MID / HIGH CONTRAST: LOW / MIDLOW / MID / MIDHIGH / HIGH
	OFF	Disable digital wide dynamic range

7) MOTION DET (see page 9)	ON	DETECT SENSE: 0~127 Adjustable range
		BLOCK DISP: ON / OFF / ENABLE
		MONITOR AREA: ON / OFF
		AREA SEL: Up to 4 selectable zones
		  TOP: 0~244 Adjustable range
		  BOTTOM: 0~244 Adjustable range
		  LEFT: 0~474 Adjustable range
		  RIGHT: 0~474 Adjustable range

	OFF	Disable motion detection
8) NEXT	Access Menu Diagram 2 (see page 5)	
9) EXIT	Exit menu and save settings	
10) SAVE ALL	Save menu settings without exiting the menu	

[1] In MANUAL LENS mode, only SHUT mode is available. In AUTO LENS mode, SHUT + AUTO IRIS and AUTO IRIS modes are also available.
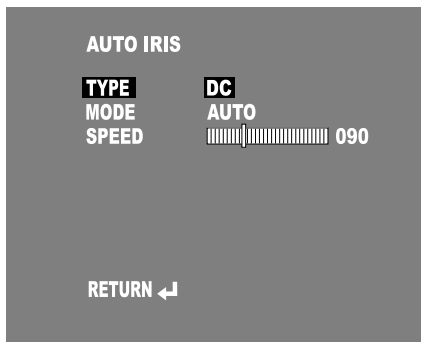
Menu Diagram 2:

SETUP MENU	SETTING	SETTING OPTIONS
1) **DAY / NIGHT** (see page 10)	AUTO	BURST: ON / OFF DELAY CNT: 0~255 Adjustable range DAY ➡ NIGHT: 0~255 Adjustable range NIGHT ➡ DAY: 0~255 Adjustable range
	COLOR	Display color image
	B/W	BURST: ON / OFF
2) **2DNR** (see page 11)	↵	NR MODE: OFF / Y / C / Y/C Y LEVEL: 0~15 Adjustable range C LEVEL: 0~15 Adjustable range
3) **CAMERA ID** (see page 11)	ON	Set a name for the camera to display on screen
	OFF	Disable camera ID
4) **SYNC** (see page 11)	Function is not used	
5) **LANGUAGE** (see page 12)	English, Chinese, Japanese, German, French, Russian, Portuguese, Spanish	
6) **CAMERA RESET** (see page 12)	Reset camera to factory settings	
7) **BACK**	Access Menu Diagram 1 (see page 4)	
8) **EXIT**	Exit menu and save settings	
9) **SAVE ALL**	Save menu settings without exiting the menu	

Lens:

This function is used to select the camera's lens type.

1. Select LENS on the SETUP menu screen.
2. Select the desired lens type by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

↵ **AUTO:** Select automatic mode for DC Auto Iris lens.

- TYPE: Select lens type (DC or VIDEO).
- MODE: Select the mode (AUTO, OPEN, or CLOSE).
- SPEED: Set the Auto Iris movement speed. Adjustable range: 0~255.

➢ **MANUAL:** Select manual mode for manual or fixed lens.

```
AUTO IRIS

TYPE      DC
MODE      AUTO
SPEED     |||||||||||||||||||||||||  090



RETURN ↵
```

Shutter / Automatic Gain Control (AGC):

This function is used to manually adjust the shutter speed and AGC settings.

1. Select SHUTTER / AGC on the SETUP menu screen.
2. Select the desired shutter or AGC type by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

↵ **AUTO:** The camera is in automatic shutter mode.

    A. HIGH LUMINANCE
       • MODE: Select shutter mode.
          – SHUT – This function is not used.
          – AUTO IRIS – Adjust the iris to allow a specific amount of exposure.
          – SHUT + AUTO IRIS – Combination of both SHUT and AUTO IRIS.

       In manual lens mode, only SHUT mode is available. In automatic lens mode, only AUTO IRIS or SHUT + AUTO IRIS modes are available.
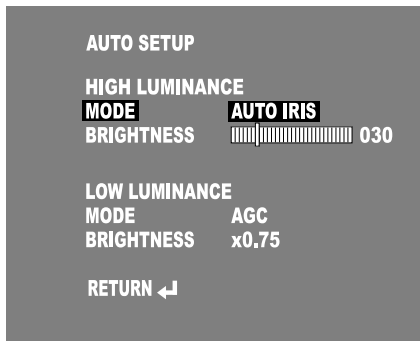
       • BRIGHTNESS: Set the auto-exposure image brightness. Adjustable range: 0~255.

    B. LOW LUMINANCE
       • MODE: Select low luminance mode (AGC or OFF).
       • BRIGHTNESS: Select the automatic gain value. This setting has no effect if AGC is on. Adjustable range: x0.25, x0.50, x0.75, x1.00.

➢ **MANUAL:** The camera is in a fixed shutter mode.

    • MODE: This function is not used.
    • SHUTTER: Selectable shutter speed. Adjustable range: 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000.
    • AGC: Set the gain value. Adjustable range: 6.00, 12.00, 18.00, 24.00, 30.00, 36.00, 42.00, 44.80.

```
AUTO SETUP

HIGH LUMINANCE
MODE            AUTO IRIS
BRIGHTNESS      ||||||||||||||||||||||||||| 030

LOW LUMINANCE
MODE            AGC
BRIGHTNESS      x0.75

RETURN ↵
```

```
MANUAL SETUP

MODE            SHUT + AGC
SHUTTER         1/60
AGC             6.00




RETURN ↵
```
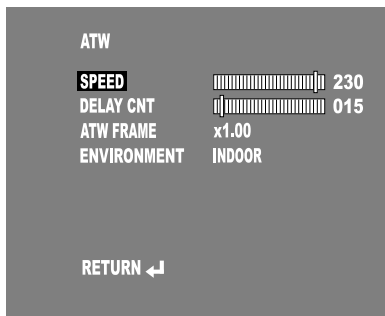
White Balance:

This function is used to adjust the color temperature and image color of the picture.

1. Select WHITE BAL on the SETUP menu screen.
2. Select the desired white balance mode by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

↵ **Automatic Tracking White Balance (ATW):** When the image color temperature changes, it will automatically adjust the white balance color temperature range from 1,800°K~10,500°K (ex.: a fluorescent light or outdoors).
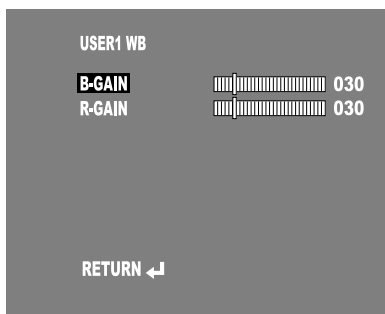
ATW	
SPEED	230
DELAY CNT	015
ATW FRAME	x1.00
ENVIRONMENT	INDOOR
RETURN ↵	

- SPEED: Set the ATW speed. Adjustable range: 0~255.
- DELAY CNT: Set the ATW delay time. Adjustable range: 0~255.
- ATW FRAME: Set the ATW zone ratio. Adjustable range: x0.50, x1.00, x1.50, x2.00.
- ENVIRONMENT: Set the ATW environment (INDOOR or OUTDOOR).

➢ **PUSH:** In PUSH mode, the white balance setting will be disabled.

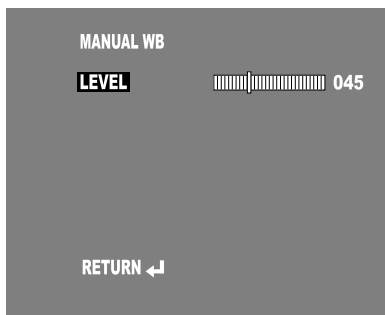↵ **USER 1/2 WB:** Independently set the white balance setting for USER 1 or USER 2.

USER1 WB	
B-GAIN	030
R-GAIN	030
RETURN ↵	

- B-GAIN: Set the blue gain. Adjustable range: 0~255.
- R-GAIN: Set the red gain. Adjustable range: 0~255.

➢ **ANTI CR:** Select this mode when color rolling or flickering caused by the unmatched frequency of electric lights occurs.

↵ **MANUAL:** Set the white balance level manually.

MANUAL WB	
LEVEL	045
RETURN ↵	

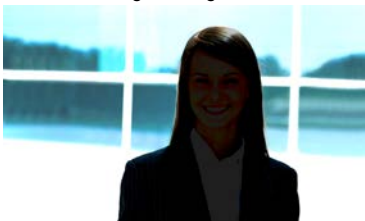- LEVEL: Set the color on-screen. Adjustable range: 26~72.

➢ **PUSH LOCK:** In PUSH LOCK mode, the white balance setting will be disabled when the ENTER button (OSD controller) or joystick is pressed.

Backlight Compensation (BLC):

This function is used to control the light level to overcome strong backlight conditions.

1. Select BACKLIGHT on the SETUP menu screen.
2. Select the desired BLC mode by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

➢ **Backlight Compensation (BLC):** Select this mode to correct the exposure of subjects in front of a strong backlight.

BLC OFF

BLC ON

➢ **Highlight Compensation (HLC):** Select this mode to improve the picture by displaying shades of gray on a strong highlight.
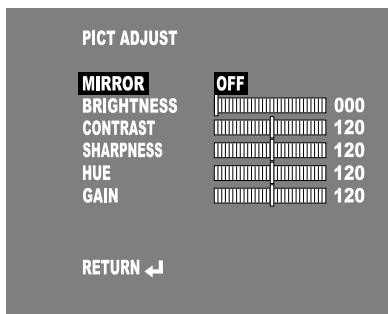

HLC OFF

HLC ON

Picture Adjustment:

This function is used to adjust the color temperature and image color of the picture.

1. Select PICT ADJUST on the SETUP menu screen.
2. Select the desired picture setting by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

   - MIRROR: Flip the image horizontally.
   - BRIGHTNESS: Set picture brightness. Adjustable range: 0~255.
   - CONTRAST: Set picture contrast. Adjustable range: 0~255.
   - SHARPNESS: Set picture sharpness. Adjustable range: 0~255.
   - HUE: Set picture hue. Adjustable range: 0~255.
   - GAIN: Set picture gain. Adjustable range: 0~255.

Digital Wide Dynamic Range (D-WDR):

This function will adjust the brightness value of the image for a more detailed picture.

1. Select D-WDR on the SETUP menu screen.
2. Select the desired D-WDR setting by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

- LUMINANCE: Set the D-WDR brightness (LOW, MID, or HIGH).
- CONTRAST: Set the D-WDR contrast (LOW, MIDLOW, MID, MIDHIGH, or HIGH).

D-WDR

LUMINANCE **MID**
CONTRAST **MID**
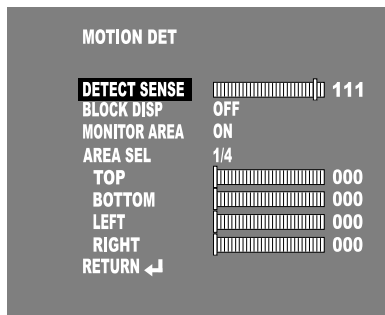
RETURN ↵

D-WDR OFF

D-WDR ON

Motion Detection:

This function is used to detect moving objects on-screen.

EV-6680 Series Only: The motion-activated LED is tied to the motion detection feature. Turn MOTION DET ON or OFF to turn the motion-activated LED ON or OFF.

1. Select MOTION DET on the SETUP menu screen.
2. Select the desired MOTION DET mode by pressing the joystick button.

- DETECT SENSE: Set detection sensitivity. Adjustable range: 0~255.
- BLOCK DISP: Mosaic blocks will appear where movement is present (ON, OFF, or ENABLE). In ENABLE mode, select a certain area in which motion is not detected. To exit ENABLE mode, press down on the joystick for 2 seconds and then release.
- MONITOR AREA: Set detection area.
- AREA SEL: Set up to 4 detection zones.
  - TOP: Set vertical start position. Adjustable range: 0~244.
  - BOTTOM: Set vertical end position. Adjustable range: 0~244.
  - LEFT: Set horizontal start position. Adjustable range: 0~244.
  - RIGHT: Set horizontal end position. Adjustable range: 0~244.

MOTION DET

DETECT SENSE   111
BLOCK DISP   OFF
MONITOR AREA   ON
AREA SEL   1/4
 TOP   000
 BOTTOM   000
 LEFT   000
 RIGHT   000
RETURN ↵

Note: If motion detection is turned ON for EV-6680-N3WQ and EV-6680-P3WQ, a red LED will turn ON every time motion is detected.

Next:

Select to advance to the next menu diagram.

Exit:

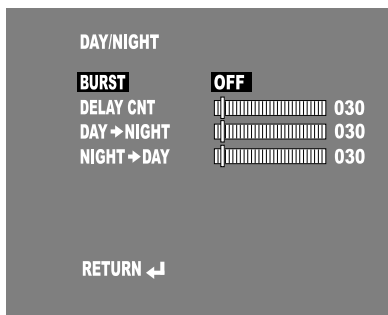Select to save current settings and exit the SETUP menu.

Save All:

Select to save menu settings without exiting the SETUP menu.

Day/Night Mode:

This function will adjust the brightness value of the image for a more detailed picture.

1. Select DAY/NIGHT on the SETUP menu screen.
2. Select the desired DAY/NIGHT setting by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

↵ **AUTO:** The camera image will switch to color in normal situations and B/W when ambient light is low.
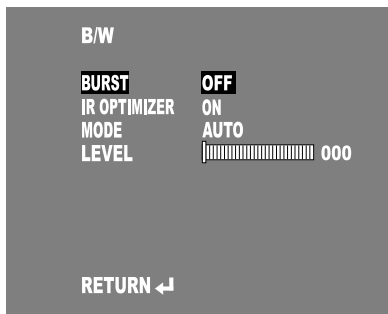
```
DAY/NIGHT

BURST           OFF
DELAY CNT       |||||||||||||||||||||  030
DAY → NIGHT     |||||||||||||||||||||  030
NIGHT → DAY     |||||||||||||||||||||  030



RETURN ↵
```

- BURST: Set BURST mode (ON or OFF). When BURST mode is ON, the image colors will be suppressed but present when the camera switches to B/W mode. When BURST mode is OFF, the image colors will be B/W when the camera switches to B/W mode.
- DELAY CNT: Set the COLOR/B&W interchange delay time. Adjustable range: 0~255 sec.
- DAY ➡ NIGHT: Define light level to trigger B/W mode. Adjustable range: 0~255.
- NIGHT ➡ DAY: Define light level to trigger COLOR mode. Adjustable range: 0~255.

➢ **PUSH:** The camera image will always display in color.
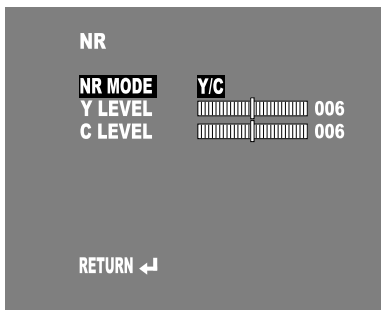
↵ **B/W:** The camera image will always display in B/W.

- BURST: Set BURST mode (ON or OFF). When BURST mode is ON, the image colors will be suppressed but present when the camera switches to B/W mode. When BURST mode is OFF, the image colors will be B/W when the camera switches to B/W mode.
- IR OPTIMIZER: Turn ON or OFF.
- MODE: AUTO optimizes the IR, or optimizes to the CENTER.
- LEVEL: Sets the level of IR optimization. Adjustable range: 0~255.

```
B/W

BURST           OFF
IR OPTIMIZER    ON
MODE            AUTO
LEVEL           |||||||||||||||||||||  000



RETURN ↵
```

2D Noise Reduction (2DNR):

This function is used to adjust the gain level to reduce the interference on the screen in an area with low illumination.

1. Select NR on the SETUP menu screen.
2. Select the desired 2D NR setting by pressing the joystick button.
3. Select RETURN to return to the SETUP menu.

- NR: Set the noise reduction mode (OFF, Y, C, or Y/C).
- Y LEVEL: Set the brightness signal noise reduction level. Adjustable range: 0~15.
- C LEVEL: Set the color signal noise reduction level. Adjustable range: 0~15.

2D-NR OFF

2D-NR ON

Camera ID:

This function is used to set a name for the camera.

1. Select CAMERA ID on the SETUP menu screen.
2. Turn CAMERA ID ON or OFF by pressing the joystick button.
3. If CAMERA ID is ON, use the cursor to select the character in the alphabet list. Press the joystick button to select the character.
4. Select RETURN to return to the SETUP menu.

- CHR1/CHR2: Functions not used.
- ←➡↑↓: Adjust the cursor position.
- CLR: Forward delete the selected character.
- POS: Set the location of the CAMERA ID text.
- RETURN: Save and return to the SETUP menu.

Sync:

This function is not used.

Language:

This function is used to select the OSD display language.

1. Select LANGUAGE by moving the cursor UP and DOWN on the SETUP menu screen.
2. Select the desired language by pressing the joystick button.

Camera Reset:

Select to return the camera settings to factory default.

Back:

Select to return to the previous menu diagram.

Exit:

Select to save current settings and exit the SETUP menu.

Save All:

Select to save menu settings without exiting the SETUP menu.

Troubleshooting:

The screen is blank, despite working as before using the joystick.

- Check that the camera is powered up.
- Check that the monitor is powered up.
- Check that the power supply's polarity is correct.

IMPORTANT: Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of the product in violation of any current laws or statutes.

FCC COMPLIANCE STATEMENT: Information to the user: This equipment has been tested and found to comply with the limits for a class B 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 or her own expense.

WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for two (2) years from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

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PICVN3

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