

Wide Dynamic Range Pixim Instruction Manual 20B40x Family



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1. Document History

Revision	Issue Date	Reason	CN#
Rev A	12-12-08	Initial release	08-0046

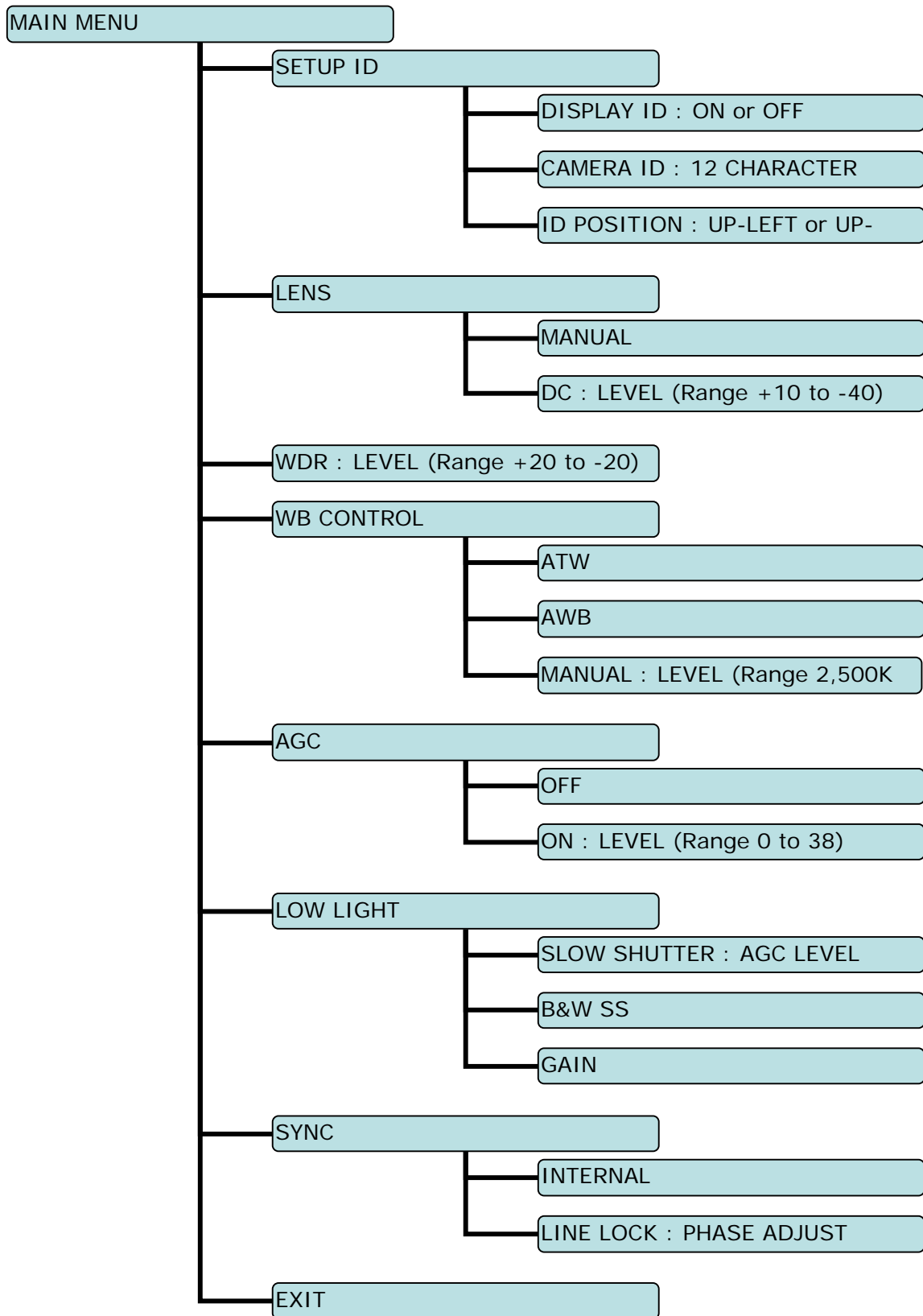
2. General Information

2.1. Safety Precautions

- Do not disassemble the unit
- Do not put objects inside the unit
- Make sure that no metal objects or flammable substances get inside the camera. It could cause fire, short-circuits or damages.
- Be careful when handling the unit
- To prevent damage, do not drop the camera or subject it to strong shock or vibration
- Install away from electric or magnetic fields
- Protect from humidity and dust
- Protect from high temperatures

3. Camera Setup

3.1. Menu & Setting Details



Five key switchboard

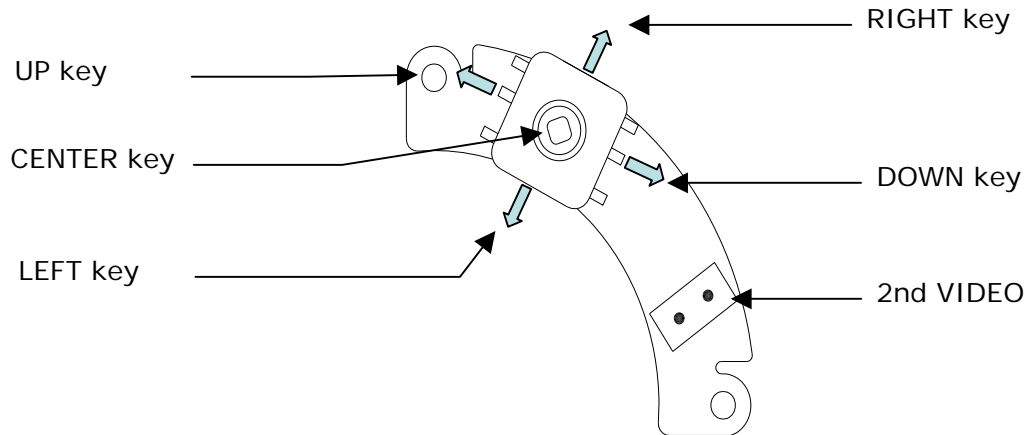


Figure 1.

3.2. Screen Display (OSD)

CENTER KEY Used to access the menu mode, and also used to confirm the setting.
UP / DOWN KEY Used to choose the desired menu selection.
LEFT / RIGHT KEY Used to choose the desired menu feature adjustment.

3.3. OSD Menu Enter/Exit

See figure 1

OSD Menu Enter

Push Center Key for 3 seconds

OSD Menu Exit

Press EXIT Menu from Main Menu

If pressing the Set Key for 3 seconds the Main Menu appears. In this case, just press Set Key.

'SAVE' and 'QUIT'

Left or Right Key	Select Menu
Up or Down Key	Return to Menu

1. Press the SET key to access the main setup mode.
2. Select the desired feature using the UP or Down key.
3. Change the status of the selected feature using the LEFT or RIGHT key.

3.4. Main Menu

SETUP ID

DISPLAY ID

ON

The ID name will be displayed in the monitor.

OFF

The name will not be displayed in the monitor.

CAMERA ID

You can write up to 12 characters.

ID POSITION

Select the on screen position of the camera ID.

LENS

MANUAL

Select when using a manual lens.

DC Iris

You can control the brightness of the screen and adjust the desired DC level from 10 to -40.

WDR (Wide Dynamic Range):

WDR

You can adjust the desired WDR level from 20 to -20.

WB CONTROL

ATW

(Auto Tracking White Balance) The camera automatically controls the white balance in any environment.

AWB

(Auto White Balance) The white balance is automatically adjusted in a specific environment.

MANUAL

Users can adjust the colors by adding or reducing the WB level. You can adjust the desired WB level, from 2,500K to 9,500K.

AGC

ON

Activate automatic gain control feature.

OFF

You can adjust the desired AGC level from 0 to 38dB.

Deactivate automatic gain control feature.

LOW LIGHT

SLOW SHUTTER

Control Image brightness by adjusting shutter speed.

AGC

Shutter speed setting (Range 28 to 48)

MAX FIELD

Shutter opens from a Min. of x2 to Max. x32 field accumulation period.

B&W SS

Black and White Slow Shutter.

GAIN

To get a brighter picture.

SYNC

INTERNAL

Internal synchronization

LINE LOCK

Phase adjustment may be necessary with multiple camera installations to prevent picture roll.

EXIT MENU

EXIT NO CHANGES

No change

SAVE NEW AND EXIT

Save change

RESTORE FACTORY SETTINGS

Factory default

SW REV

PREVIOUS PAGE

PREVIOUS PAGE

Return page

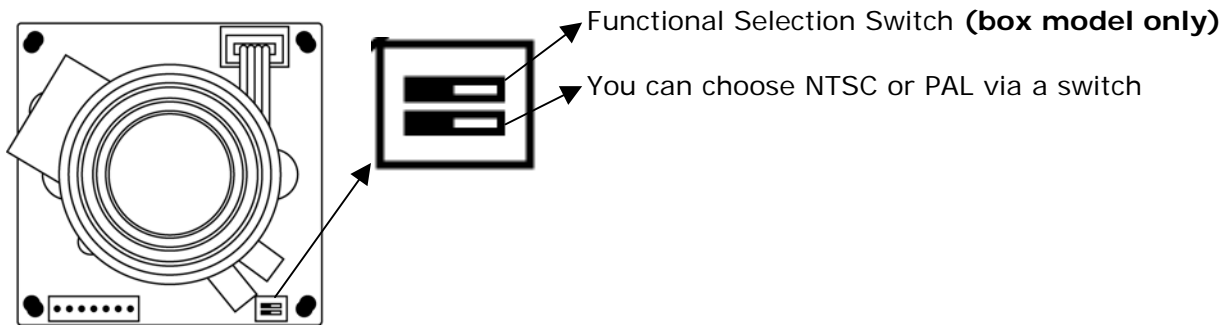


Figure 2.

4. Camera Features & Dimensions

4.1. Product Features

High Resolution

The camera has 480 lines of horizontal resolution and 460 lines of vertical resolution.

Superior Wide Dynamic Image Quality

The camera has very Wide Dynamic Range via a Pixim DSP Chip Set.

Film-like colors are described under various Light conditions even in high dynamic range scenes

Dynamic Range is greater than 95dB.

Digital Pixel System

Each pixel is processed independently to get clear and usable images.

Various Lens Choices

It offers flexibility of the lens from board mount to C/CS mount lens with manual and DC auto-iris control.

Power Source

DC 12V 300mA

OSD Control (Option)

Every function can be controlled by the OSD menu

- Automatic white balance
- Automatic gain control (max 38dB)
- Slow shutter, agc on/off
- Line lock phase control
- Lens type control
- Auto exposure control

Synchronization

Both Internal Synchronization and External Synchronization are provided.

Camera ID

The title that identifies this camera on a monitor.

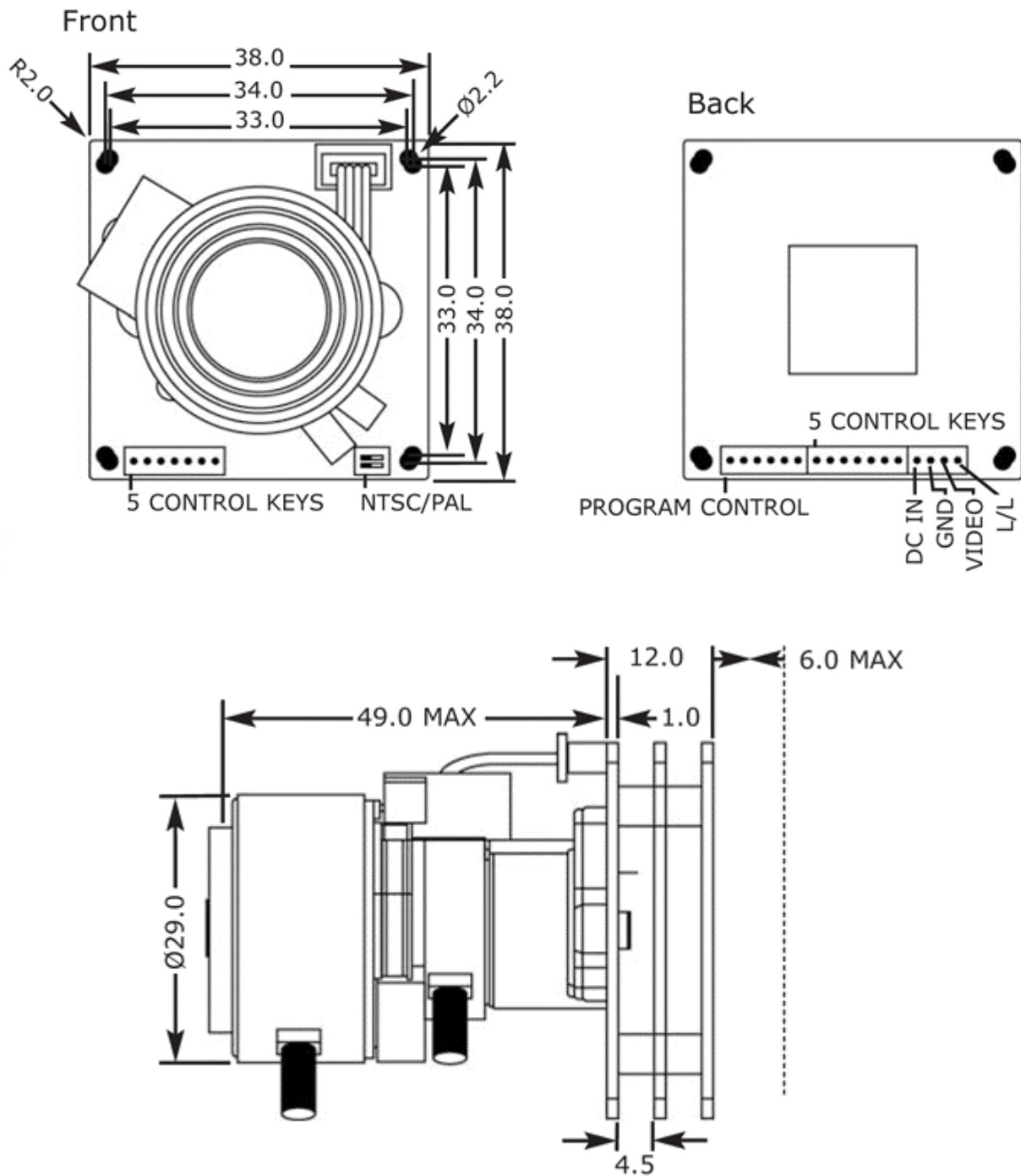
NTSC/PAL Selectable

NTSC or PAL is selectable by simple Slide S/W

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RS232 - an optional RS232 board is available

4.2. Product Dimensions



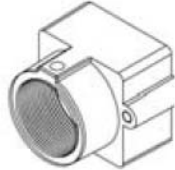


5. Camera Specifications

	20B40x NTSC	21B40x PAL
Pick-up Device	1/3 inch CMOS (Dynamic Range Sensor)	
Total of Pixels (H x V)	742 x 552	
Horizontal Resolution	480 Horizontal TV Lines (color)	
Scanning System	525 lines interlaced	625 lines interlaced
Synchronization	Internal / External	
Video Output	1.0Vp-p/75 ohm Composite	
Iris Control	DC Lens, Video Lens, Manual Lens	
White Balance	Auto/manual	
Gamma	0.45	
Sensitivity	0.6 Lux F1.2 Lens, 30 IRE	
S/N Ratio	48dB or more	
Dynamic Range	120dB(max), 102dB (typical)	
Shutter Speed	1/60 - 1/100,000	1/50 - 1/100,000
AGC Control	0 - 34dB	
OSD Menu Control (Option)	4-directional Switch with a center Push TACTILE Switch & RS232	
Supplied Voltage	DC 12V (8V - 18V), Added board option & box camera allows AC 24V (20V - 30V)	
Power Consumption	Max 2.7W	

Environmental

Operating Temperature	-10° C ~ 50° C (14° F ~ 122° F)
Storage Temperature	-20° C ~ 70° C (-4° F ~ 158° F)
Operating Humidity	Under 90% Non-condensing
Storage Humidity	Under 95% Non-condensing

Mechanical

Dimensions (WxHxD)	38mm x 38mm x 18mm (1.49" x 1.49" x 0.70") without lens		
Weight	30g (1.05 oz) without lens		
Lens Mounts	Replace "X" in model number with desired lens mount option:		
Example: Change 20B40x to 20B405 to select an M-12 Board Mount.	5 = Metal M-12 Board	6 = Metal M-14 Board	8 = Metal CS Board
			

Accessories

Optional	60ZRC01 – OSD control board
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6. Troubleshooting

6.1. Tips for Troubleshooting

Before sending the camera out for repair, check the items below. If the problem persists after checking these items, contact your service center.

If no image appears

- Is the power and voltage normal?
- Has the iris of the lens inside the camera been adjusted correctly?
- Is there adequate illumination?

If the image is unclear

- Is the lens in focus?
- Is the lens dirty?
- Dirt or fingerprints on the lens can adversely affect the images. Gently wipe any dirt or fingerprints off the lens with a soft cloth or lens cleaning paper and cleaning fluid (commercially available).

Is the monitor adjusted correctly?

WARNING:

TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

7. Contact Information

For technical assistance with this product, please contact the supplier from whom the product was purchased.

For OEM inquiries, contact Videology Imaging Solutions:

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