

VIDEOLOGY[®]

IMAGING SOLUTIONS INC.

Operation Manual

| M14 Board Lens | | CS Lens | |
|----------------|--------|---------|--------|
| NTSC | PAL | NTSC | PAL |
| 20E407 | 20E417 | 20E409 | 21E409 |
| 21E407 | 21E417 | 20E419 | 20E419 |



BOX CONTENTS

1. Camera module
2. Connection cable
3. User manual

SAFEGUARDS & WARNINGS

Prior to installation and use of this product, the following WARNINGS should only be observed.

1. Installation and servicing should only be done by Qualified Service and Installation Personnel.
2. Installation shall be done in accordance with all local and national electrical and mechanical codes.
3. Use only installation methods and materials capable of supporting four (4) times the maximum specified load.

Camera Settings

Dip Switch 1

Note- "On" Indicates "HI" Position

| Function | Off | On |
|---------------|-----------------------------------|--------------|
| 1 FLICKERLESS | Off (Default) | On |
| 2 BLC | Off | On (Default) |
| 3 M IRIS | Electronic CCD | DC Auto Iris |
| 4 AE REF | 100 IRE (Default) | 80 IRE |
| 5 AGC MAX | 20dB max (Default) | 26dB max |
| 6 AWB1 | White Balance Control (see below) | |
| 7 AWB2 | White Balance Control (see below) | |
| 8 AWB3 | White Balance Control (see below) | |

Note: for DCAI 1, 3, 4 are set ON

White Balance Control

| WB AUTO | MODE | | |
|----------------|------------------|------------------|------------------|
| | Switch 6 AWB1 | Switch 7 AWB2 | Switch 8 AWB3 |
| Auto Enabled | Off | On | Off |
| Pt Set Enabled | Off | On | On |

WB Fixed Mode

| | Switch 7 AWB2 | Switch 8 AWB3 | Color Temp. |
|---------------|------------------|------------------|---------------|
| Indoor | Off | Off | Approx. 3200K |
| Fluorescent | On | Off | |
| Lamp | Off | On | Approx. 4200K |
| Outdoor Fixed | On | On | Approx. 6300K |

Dip Switch 2

Note- "On" Indicates "HI" Position

| Function | Off | On |
|-----------|----------------------------------|--------------------------------------|
| 1 GAMMA | 1.0 enabled | 0.45 enabled (Default) |
| 2 AE / ME | ME - Mechanical Exposure enabled | AE - Auto Exposure enabled (Default) |

Push to Set White balance

The Push to Set White balance (Pt set) may be implemented by selecting the switch settings.

Next, focus the camera on a white background under the lighting that is to provide illumination for the camera scene.

Push the button labeled "Push Lock White Balance". The camera White Balance will be locked and will not change if the scene changes.

Camera Functions

Connectors and Controls

Lens options vary, but are pre-backfocused for normal operation. Varifocal lens options are indicated in model numbers ending in:

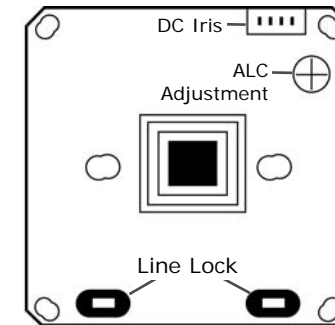
VA (4 to 9mm varifocals)

VB (DC Auto Iris 4 to 9mm varifocals)

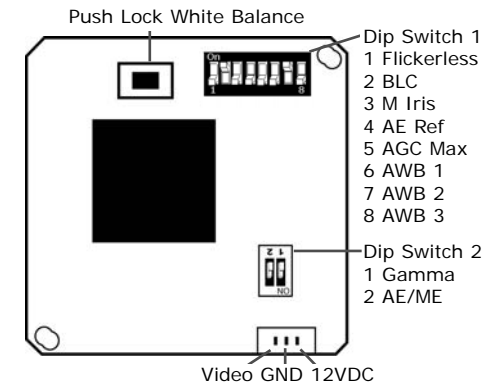
WA (2.6 to 5.6mm varifocals)

WB (DC Auto Iris 2.6 to 5.6mm varifocals)

Front



Back



Power Board Controls

An optional 24VAC power board is available.

Note: Line lock is included with this camera

Technical Specifications

| | 20E407 | 21E407 | 20E417 | 21E417 |
|-------------------------|----------------------------------------------------------|---------|----------|---------|
| Electrical | NTSC | PAL | NTSC | PAL |
| CCD Sensor | 1/3" Sony Interline CCD | | | |
| Active Pixels (HxV) | 768x492 | 752x582 | 512x492 | 512x582 |
| Horizontal Resolution | >460 TVL | | >330 TVL | |
| Sensitivity | <0.5 lux | | | |
| Signal to Noise Ratio | >46dB | | | |
| Gamma | Default 0.45/selectable settings | | | |
| Gain | Automatic/fixd (specified gain), selectable | | | |
| Synchronization | Internal / line lock | | | |
| Back Light Compensation | Selectable on/off | | | |
| White Balance | Automatic/fixd setting, selectable/ push to set | | | |
| Shutter Speed | From /50 (/60 EIA) to <1/10,000 sec, Fixed shutter speed | | | |
| Iris | Electronic iris, DC iris | | | |
| Video Output | 1Vp-p baseband video (75 ohm), Optional YC | | | |
| Power Supply | 12VDC +/- 10% | | | |
| Power Consumption | 1.5W | | | |

Environmental

| | |
|----------------------------|----------------------------------|
| Ambient Operating Temp. | -10° C ~ 55° C (14° F ~ 131° F) |
| Ambient Operating Humidity | 90% non-condensing |
| Storage Temp. | -25° C ~ 70° C (-13° F ~ 158° F) |
| Storage Humidity | 95% non-condensing |

Mechanical

| | | | |
|--------------------------------------------------|---------------------------------------------------------------|----------------------|-----------|
| Dimensions | 38mm x 38mm x 30mm double board (1.49" x 1.49" x 1.18") | | |
| Available board lenses | 2.9, 3.6, 4.3, 6.0, 8.0, 12.0 Varifocal lens 4-9mm, 2.6-5.6mm | | |
| <i>When ordering, add suffix to model Number</i> | VA | Fixed iris | 4-9mm |
| | VB | DC iris | 4-9mm |
| | WA | Varifocal fixed iris | 2.6-5.6mm |
| | WB | Varifocal DC iris | 2.6-5.6mm |
| Lens mount | 20E407/ 21E407 | M12 Board Mount | |
| | 20E417/ 21E417 | M12 Board Mount | |
| | 20E409/ 21E409 | C/CS Mount | |
| | 20E419/ 21E419 | C/CS Mount | |
| Interfaces | Board connector/ power & video out Ground Line lock | | |

Accessories

| | |
|----------|-------------------|
| Optional | 24VAC power board |
|----------|-------------------|

Note: Serial Interface or YC options are special requests