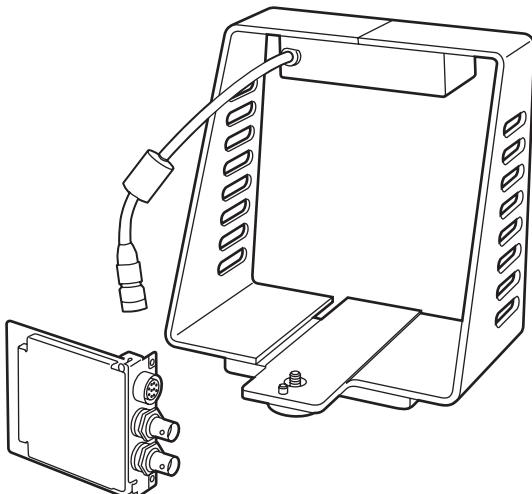


Panasonic®

Operating Instructions

Studio SDI Card
AW-PB506AN

This product consists of an SDI card and an interface bracket.



Before attempting to connect, operate or adjust this product,
please read these instructions completely.

Safety precautions



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

For CANADA

**This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la class A est conforme à la norme
NMB-003 du Canada.**

FCC Note:

This equipment has been tested and found to comply with the limits for a class A 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 own expense.

Warning:

To assure continued FCC emission limit compliance, the user must use only shielded interface cables when connecting to external units. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate it.



indicates safety information.

Safety precautions

WARNING:

- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS. USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGES OF SWITCH SETTINGS INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.



indicates safety information.

Safety precautions

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



indicates safety information.

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Configuration

SDI card (AW-PB506A U01)	1
Interface bracket (AW-PB506A U02)	1

Accessories

Adjuster plug (M6 ▶ M3)	1
Screws (6 mm)	2
Screws (8 mm)	4

Introduction

Installing the SDI card in a convertible camera (such as the AW-E350, AW-E650, AW-E655, AW-E750 and AW-E860) and mounting the camera on the interface bracket makes it possible for a viewfinder and/or inter-communications headset to be used and thus enable the camera to be used as a studio camera. In addition, there are two signal outputs for SDI signals compliant with the SMPTE259M standard.

Notes

- The AW-PB506A cannot be installed to the following models; AW-E300, AW-E300A, AW-E300S, AW-E600, AW-E800, AW-E800A, AW-RP605, AW-PB605
- When the SDI card unit is to be discarded at the end of its service life, ask a specialized contractor to dispose of it properly in order to protect the environment.

Characteristics

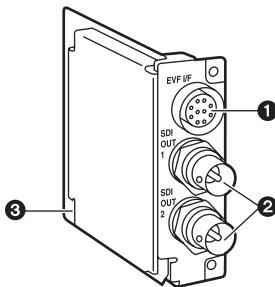
- Two signal outputs for SDI signals compliant with the SMPTE259M standard [BELDEN 8281 or equivalent coaxial cable; max. 656 ft. (200 m)] EDH (Error Detection and Handling) flags complying with the SMPTE RP165 standard can be added. (A switch can be used to enable or disable the addition of these flags.)
- An inter-communications headset can be used and its volume adjusted.
- The STANDBY/ON switch function of the viewfinder (WV-VF65B, AW-VF80) is incorporated.
- Output signals (brightness and composite video signals) to the viewfinder can be switched using the menu settings.
- Zebra pattern and safety zone displays appearing in the viewfinder can be switched using the menu settings.
- The VIDEO ON/OFF switch function of the viewfinder (AW-VF64) is incorporated. (In order to prevent CRT burn-in, the AW-VF64 does not come with a standby function.)

Precautions for use

- When connecting or disconnecting a cable from any unit, ensure that the power to that unit is turned off.
- Do not drop this product or subject it to strong shock or vibration, as this may cause it to malfunction.
- Avoid using the unit in very humid or dusty locations, as this may cause it to malfunction.
- Avoid using the product at a cold place below 14°F (-10°C) or at a hot place above 113°F (+45°C) because extremely low or high temperature will adversely affect the parts inside.

Major operating controls and their functions

■SDI card



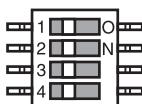
① EVF I/F connector [EVF I/F]

The EVF I/F cable ① from the interface bracket is connected here.

② SDI output 1, 2 connector [SDI OUT 1, 2]

SDI signals are output from here.

③ Setting switches



	SW NO	OFF	ON
1	EDH	ENABLE	DISABLE
2	SETTING	E350	E860
3	DATA CLIP	NORMAL	CLIP
4	NTSC/PAL	NTSC	PAL

1: EDH <ENABLE/DISABLE>

(Factory setting: ENABLE)

An EDH flag is added to SDI output at the ENABLE setting.

2: Model selection <E350/E860>

(Factory setting: E350)

When the AW-E350, AW-E650, AW-E655 or AW-E750 is used, set this switch at the E350.

When the AW-E860 is used, set this switch at the E860.

3: DATA CLIP <NORMAL/CLIP>

(Factory setting: NORMAL)

At the NORMAL setting, signal input is output at the same level at which it was input.

At the CLIP setting, signal input at less than 0% is output at 0%, and signal input at more than 100% is clipped at 100%.

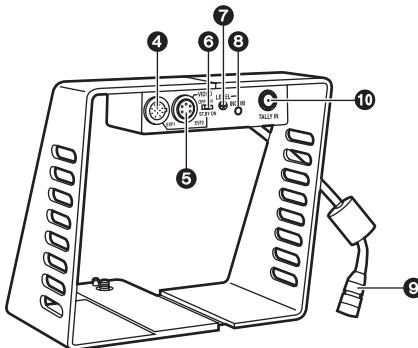
4: NTSC/PAL switching <NTSC/PAL>

(Factory setting: NTSC)

Leave this switch at the factory setting.

Major operating controls and their functions

■Interface bracket



④ EVF connector 1 [EVF1]

The viewfinder (WV-VF65B, AW-VF80) is connected here.

⑤ EVF connector 2 [EVF2]

The viewfinder AW-VF64 is connected here.

Note

- Do not connect EVFs to EVF connectors 1 and 2 (④ and ⑤) at the same time.

⑥ EVF standby / VIDEO ON/OFF switch [ST.BY / VIDEO ON/OFF]

<For the WV-VF65B, AW-VF80>

ST.BY: Places the viewfinder in standby mode.

ON: Outputs images to the viewfinder.

<For the AW-VF64>

VIDEO ON: Outputs images to the viewfinder.

VIDEO OFF: No images appear on the viewfinder.

*The AW-VF64 does not come with a standby function.

⑦ Inter-communications level control [LEVEL]

This adjusts the sound level output to the inter-communications headset.

⑧ Inter-communications jack (M3) [INCOM]

The inter-communications headset is connected here.

If the plug diameter does not match, use the adjuster plug (M6 ▶ M3) supplied with this product.

MIC: Dynamic (With Preamp)
50 Ω/-20 dB

Receiver: 150 Ω (max. 200 mW)

⑨ EVF I/F cable

This is connected to the EVF I/F connector ① on the SDI card.

⑩ TALLY input connector [TALLY IN]

This is the tally control external input connector.

OPEN: TALLY OFF

SHORT: TALLY ON

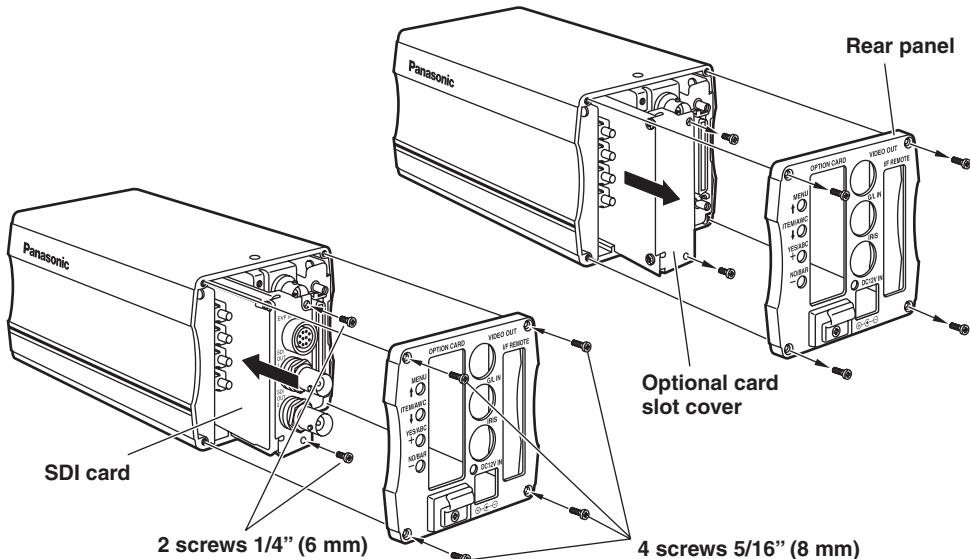
When using the AW-CB400 remote operation panel and AW-CA50T8G control cable for connecting to the convertible camera, connect the TALLY cable of the AW-CA50T8G to this connector.

Installing the SDI card

Always ask your local dealer to install the SDI card.

Before installing the SDI card:

- Release the static carried in the body of the person to perform the installation. Installation can be performed more safely if an anti-static wrist strap is worn. Touching the card without first releasing this static may cause malfunctioning.
- Do not allow the metal part of the card come in contact with any other metal parts.



- 1 Turn the power to the camera off and remove any cables which are connected to the power connector or other connectors.
- 2 Loosen the 4 screws [5/16" (8 mm)] on the rear panel of the camera, then remove the panel itself.
- 3 Loosen the 2 screws [1/4" (6 mm)] on the optional card slot cover, then remove the cover.
- 4 Align the SDI card with the guides and insert it. Ensure the card is fully inserted.

- 5 Firmly tighten the 2 screws [1/4" (6 mm)] to the optional card slot.
- 6 Firmly secure the rear panel with the 4 screws [5/16" (8 mm)].

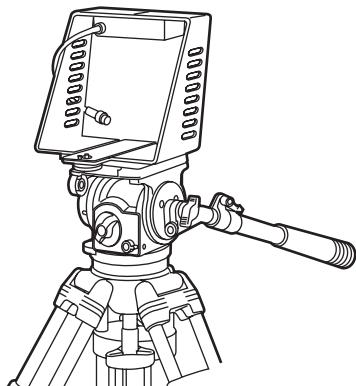
Note

- If the screws are misplaced, use the extra screws supplied with this product.

Interface bracket mountings

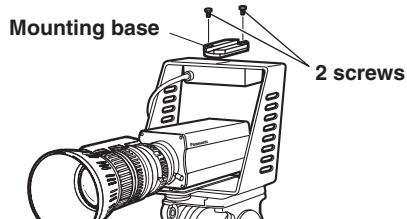
■Mounting the bracket on a tripod

1 Mount the interface bracket on the tripod. (Screw: 1/4 – 20UNC)



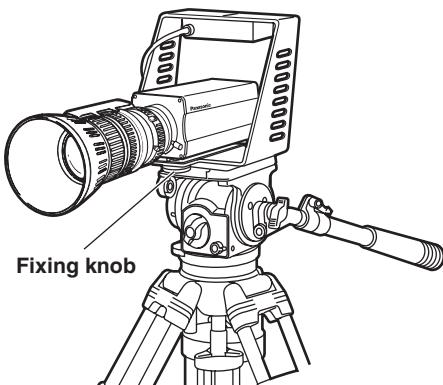
■Mounting the viewfinder on a bracket

3 Mount the mounting base that is supplied to the viewfinder onto the top of the interface bracket using the 2 screws provided.
(Mount the base securely so that it is not unsteady.)



■Mounting the camera

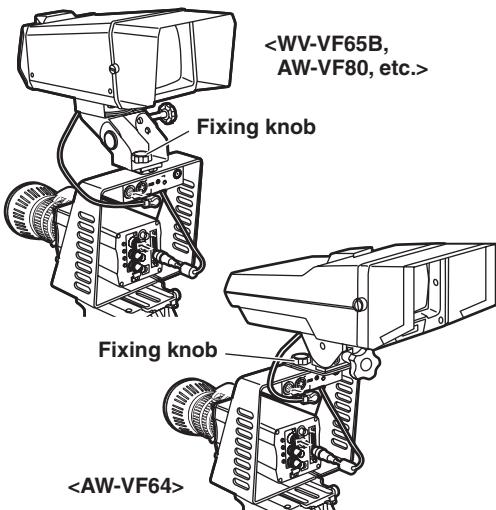
2 Mount the camera (in which the SDI card has been installed) on the interface bracket.
Fasten the fixing knob to firmly secure the camera.



4 Slide the viewfinder onto the mounting base and tighten the fixing knob to secure it firmly.

5 Connect the viewfinder cable to the EVF connector 1 or 2 on the interface bracket.

6 Connect the EVF I/F cable from the interface bracket to the EVF I/F connector on the SDI card.



Connections

■ When configuring a system with the remote control unit

Convertible camera:

AW-E350, AW-E650, AW-E655,
AW-E750, AW-E860, etc.

Viewfinder:

WV-VF65B, AW-VF80, AW-VF64, etc.

Remote control unit (RCU):

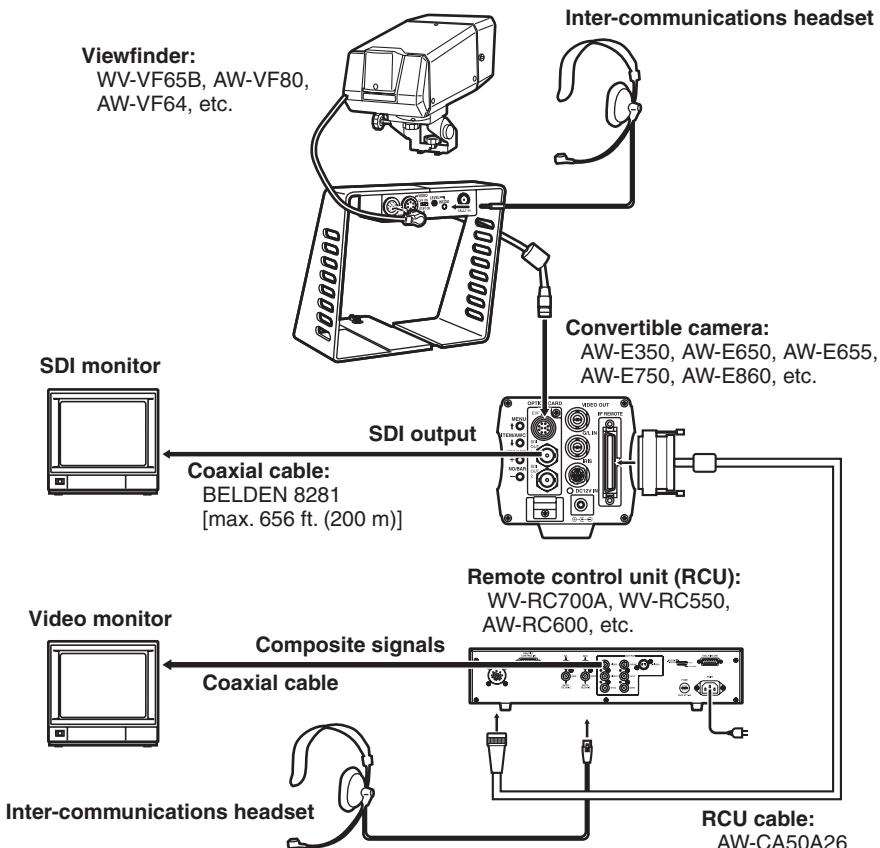
WV-RC700A, WV-RC550, AW-RC600,
etc.

Inter-communications headset

Video monitor

SDI monitor

- Use the RCU cable (AW-CA50A26) to connect the remote control unit to the convertible camera.
Power to the camera is supplied from the remote control unit.



Connections

■ When configuring a system with the remote operation panel

Convertible camera:

AW-E350, AW-E650, AW-E655,
AW-E750, AW-E860, etc.

Viewfinder:

WV-VF65B, AW-VF80, AW-VF64, etc.

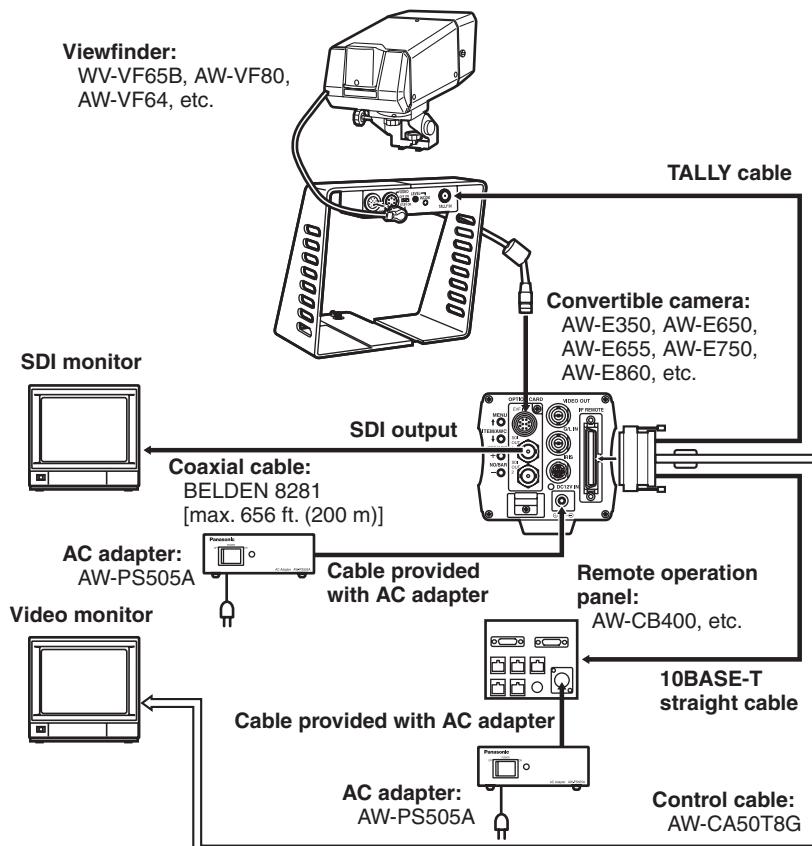
Remote operation panel:

AW-CB400, etc.

Video monitor

SDI monitor

- Use the control cable (AW-CA50T8G) to connect the remote operation panel to the convertible camera.
Use the AW-PS505A AC adapter, which is an optional accessory, for the power supply.
- Inter-communication between the remote operation panel and studio SDI card is not possible.



Setting and changing of menu items

- Camera settings to match the system configuration and filming conditions can be made using the menu screens.
See the convertible camera operating instructions for more information on the settings.
- For details on the setting procedures when the remote control unit and remote operation panel are used, refer to the operating instructions of the unit and panel.

■Performing the settings

1 Display the main menu.

When performing the settings with the convertible camera:

Press the MENU switch continuously for at least 5 seconds.

When performing the settings with the remote control unit (AW-RC600):

Set the MENU switch to "ON".

- Main menu for halogen light mode, fluorescent light mode and outdoor mode

The mode selected is displayed here.

↓
Halogen Light Mode Set
Brightness Set
Color Set
G/L, Color Bar Set
Color Sharpness(DTL) Set
Other Set
Option Card 1*
Initialize Data
(End)

To return to filming mode

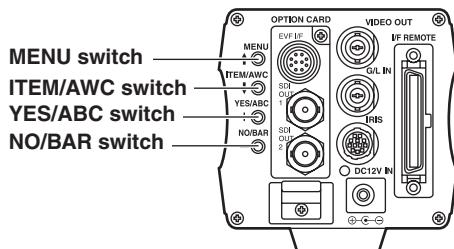
(This is displayed when the convertible camera is used to perform the settings.)

- Main menu for user mode

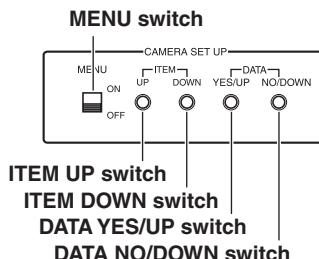
User Mode Set
Iris, Shutter, Gain Set
Color Set
G/L, Color Bar Set
Detail Set1 Detail Set2
Color Matrix Set
Other Set1 Other Set2
Option Card 1*
Initialize Data
(End)

* "Option Card 2" is displayed on the menu when the optional card has been plugged into the optional card slot of the additional card box.

- Convertible camera



- Remote control unit (AW-RC600)



Setting and changing of menu items

2 Select “Option Card 1” to display the submenu.

When performing the settings with the convertible camera:

Press the MENU or ITEM/AWC switch to move the flashing to the setting item, then press the YES/ABC switch to display the submenu.

When performing the settings with the remote control unit (AW-RC600):

Press the ITEM UP or ITEM DOWN switch to move the flashing to the setting item, then press the DATA YES/UP switch to display the submenu.

3 Select the setting item and change the setting.

When performing the settings with the convertible camera:

Press the MENU or ITEM/AWC switch to move the flashing to the desired setting item, then press the YES/ABC or NO/BAR switch to change the setting.

When performing the settings with the remote control unit (AW-RC600):

Press the ITEM UP or ITEM DOWN switch to move the flashing to the desired setting item, then press the DATA YES/UP or DATA NO/DOWN switch to change the setting.

4 Return to filming mode.

When performing the settings with the convertible camera:

Press the MENU or ITEM/AWC switch and select “End” on the main menu, then press the YES/ABC switch.

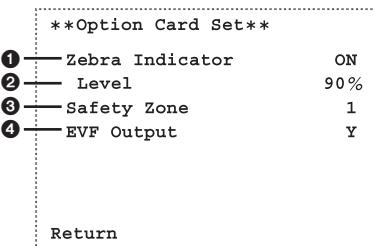
When performing the settings with the remote control unit (AW-RC600):

Set the MENU switch to “OFF”.

After being returned to filming mode, the convertible camera will operate as per the changed settings.

Setting and changing of menu items

■Optional card settings submenu



① Zebra indicator (ON, OFF)

This sets the zebra pattern display which appears in the viewfinder.

ON: Zebra patterns are displayed in the viewfinder.

OFF: Zebra patterns are not displayed in the viewfinder.

<Note>

Even if "ON" is selected for this setting, the zebra patterns will not be displayed in the viewfinder if "CVBS" has been selected as the EVF output ④ setting.

② Level (70% to 110%)

The zebra patterns are displayed to use as a yardstick for the brightness level.

<Note>

These settings are available when "ON" has been selected for the Zebra indicator ① setting.

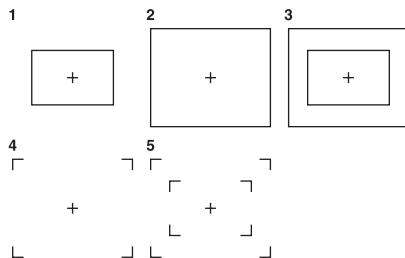
③ Safety zone (1 to 4, OFF)

This selects the type of safety zone that is displayed in the viewfinder.

If "OFF" is selected, a safety zone will not be displayed.

<Note>

The safety zone and the center marker reflect the electrical positions which may differ from the optical positions.



The inner frame and the outer frame are approximately 90% and 95%, respectively, of the safety zone.

④ EVF output (Y, CVBS)

This sets the signals to be output to the viewfinder.

Y: Brightness signals are output to the viewfinder.

CVBS: Color signals are output to the viewfinder.

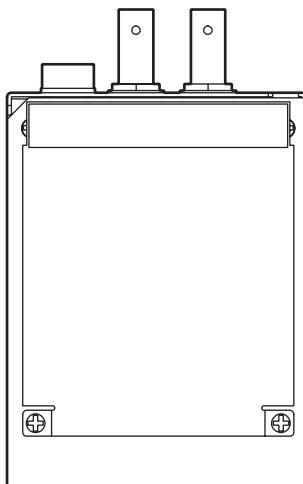
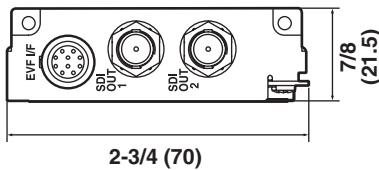
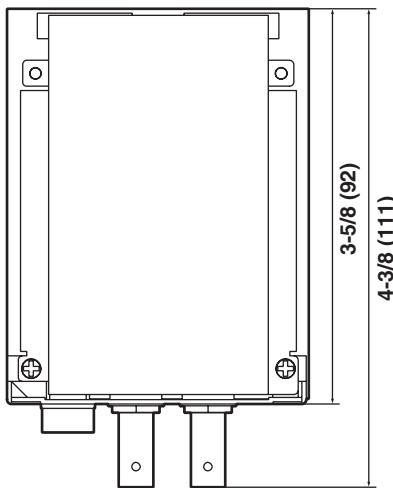
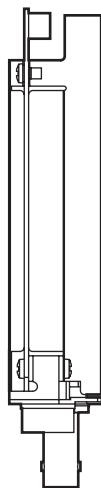
<Note>

The zebra pattern is not displayed in the viewfinder when "CVBS" has been selected.

Appearance

■ SDI card

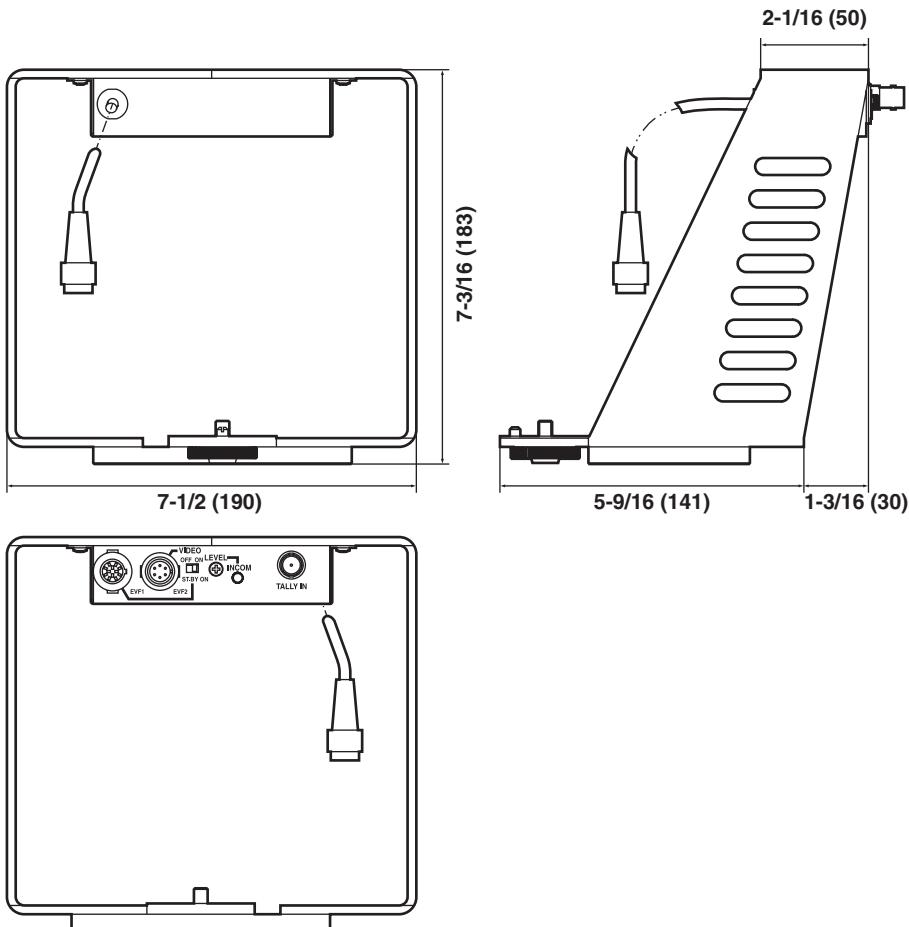
Unit: inch (mm)



Appearance

■ Interface bracket

Unit: inch (mm)



Specifications

Power requirements: DC 12 V (supplied from convertible camera)

Power consumption: 15 W (When WV-VF65B, AW-VF80 is connected)

 indicates safety information.

Ambient operating temperature: +14°F to +113°F (-10°C to +45°C)

Ambient operating humidity: 30% to 90% (without condensation)

Dimensions (W×H×D):

SDI card 7/8"×2-3/4"×3-5/8" (21.5×70×92 mm)
(excluding protrusions)

Interface bracket 7-1/2"×7-3/16"×6-3/4" (190×183×171 mm)
(excluding protrusions)

Weight:

SDI card 0.2 lbs. (0.10 kg)
Interface bracket 2.3 lbs. (1.06 kg)

Input/output connectors:

SDI card
SDI OUT 1, 2 connector BNC, compliant with the SMPTE 259M standard
EVF I/F connector 10-pin, round

Interface bracket
EVF connector 1 10-pin, round, composite signals/brightness, 1.0 V [P-P]
EVF connector 2 6-pin, round, composite signals/brightness, 1.0 V [P-P]
Inter-communications jack M3
TALLY input connector BNC

Switch/control functions:

SDI card
• EDH ENABLE/DISABLE
• Model selection E350/E860
• DATA CLIP NORMAL/CLIP
• NTSC/PAL switching NTSC/PAL

Interface bracket
EVF standby / VIDEO ON/OFF switch
WV-VF65B, AW-VF80 ST.BY/ON
AW-VF64 VIDEO ON/VIDEO OFF
Inter-communications level control

Menu screens
Zebra indicator (ON/OFF)
Level (70% to 110%)
Safety zone (1/2/3/4/5/OFF)
EVF output (Y/CVBS)

Weight and dimensions indicated above are approximate.

Specifications are subject to change without notice.

Memo

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Emergency after hour parts orders (800) 334-4881

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