

# LCD Color View Finder

## Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

**DVF-L700**

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## Overview

The DVF-L700 is a 7.0-inch color LCD viewfinder. This unit has the following features.

### High resolution and wide visual angle

The viewfinder uses a 7.0-inch Full HD resolution LCD panel for a resolution of 1920 × 1080 and a wide visual angle.

### Stable picture

The LCD screen provides stable images without distortion, regardless of display's brightness.

### HIGH BRIGHT function

The ability to increase the brightness instantly improves visibility outdoors.

### FOCUS MAG function

You can magnify the height and width of the image (x2) for easier focus adjustment.

### False color function

Display signal levels using different colors. When you use the false color function, image signals are displayed in black and white, and colors are added based on the signal levels.

### Tally indicator

The viewfinder is equipped with a single tally indicator (red) that lights in response to a tally signal.

### Flexible operability

The three joints of the supplied flexible arm can be locked via a single knob, allowing you to adjust the position of the viewfinder for comfortable operation.

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## Usage Notes

### Place of use

When using the viewfinder in low temperature environments, dynamic resolution levels may decrease during the period immediately after you turn on the power.

### Condensation

If the unit is suddenly taken from a cold to a warm location, or if ambient temperature suddenly rises, moisture may form on the outer surface of the unit and/or inside of the unit. This is known as condensation. If condensation occurs, turn off the unit and wait until the condensation clears before operating the unit. Operating the unit while condensation is present may damage the unit.

### LCD panel

The LCD panel fitted to this unit is manufactured with high precision technology, giving a functioning pixel ratio of at least 99.99%. Thus a very small proportion of pixels may be "stuck", either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such "stuck" pixels may appear spontaneously. These problems are not a malfunction.

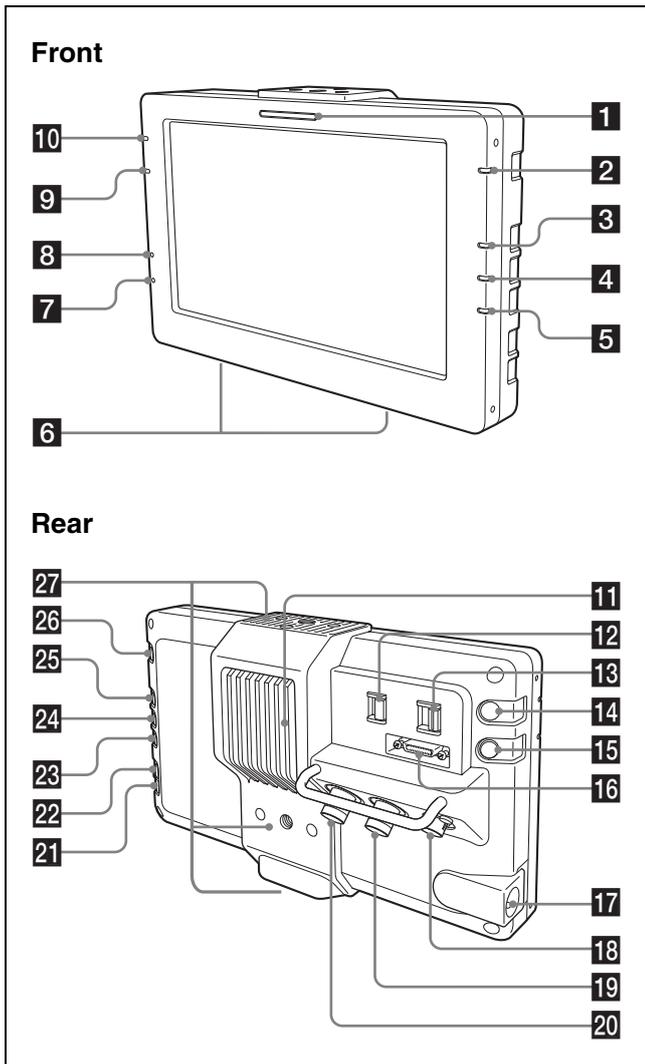
### LCD image display

- Due to the physical characteristics of LCD panels, there may be a decrease in brightness or change in color temperature over a long period of use. These problems are not a malfunction. In addition, these occurrences will not affect recorded data.
- If you leave the viewfinder displaying a still image for a long time, an afterimage may appear on the screen. Turn the power off if the viewfinder is not to be used for an extended period of time.

### Maintenance

- Use a dust blower to remove dust from the screen.
- Do not use solvents such as thinner to clean the screen.

# Parts Identification



## 1 Tally indicator

Lights or blinks red or turns off according to the situation.

**Lit:** The camera/camcorder is recording.

**Blinking:** An error or warning has occurred.

*For details on the status of the indicator, refer to the operating instructions for your camera/camcorder.*

## 2 HIGH BRIGHT (high-brightness display) indicator

Lights yellow during high-brightness display.

## 3 BRIGHT adjustment indicator

Lights orange during brightness adjustment.

## 4 CONTRAST adjustment indicator

Lights orange during contrast adjustment.

## 5 PEAKING adjustment indicator

Lights orange during peaking adjustment.

## 6 Ventilation inlet

## 7 POWER indicator

Lights green when power is being supplied.

## 8 INPUT indicator

Lights green when there is a signal input. The indicator blinks green when the signal format is not supported.

## 9 SPARE indicator

Lights orange during false color display.

## 10 FOCUS MAG (magnified display) indicator

Lights orange during magnified display.

## 11 Ventilation outlet

## 12 INPUT SELECT switch

Switches the input signal.

**VF:** Inputs signals from the VF connector (VF mode).

**SDI:** Inputs signals from the SDI IN connector (monitor mode).

## 13 TALLY DIMMER switch

Allows you to adjust the tally indicator's brightness.

Set this to OFF when you are not using the tally indicator.

**HIGH:** Increases the brightness.

**LOW:** Decreases the brightness.

**OFF:** Turns the indicator off.

## 14 FOCUS MAG (magnified display) button

Magnifies the height and width of the image (x2) for easier focus adjustment. This does not affect the camera's output signal.

The FOCUS MAG indicator lights during magnified display.

The display switches between magnified display and normal display with each press of the button.

## 15 SPARE button

When using the PMW-F5/F55 (version 2.00), this allows you to switch to false color display. This does not affect the camera's output signal.

The SPARE indicator lights during false color display.

The display switches between false color display and normal display with each press of the button.

During VF mode, images are displayed according to the false color configured on the camera.

During monitor mode, images are displayed in an S-Log2-compatible format.

During false color display, the PEAKING button is disabled and the peaking cannot be adjusted.

## 16 VF connector (26-pin rectangular type)

When using VF mode, connect this to the VF connector on the camera using the supplied VF connection cable.

## 17 POWER switch

Sets the power of the LCD panel to ON or SAVE.

## **18 DC IN connector**

When using monitor mode, connect this to an external power supply (10.5 V to 17.0 V DC) using the supplied power cable (with “STRAIGHT CABLE” label). When using the PMW-F5/F55, connect to the DC OUT connector on the battery adaptor.

The power cable (with “STRAIGHT CABLE” label) is not necessary when using VF mode, as power is supplied via the VF connector.

### **Note**

Use the power cable supplied with this unit. The power cables (without “STRAIGHT CABLE” labels) supplied with units with serial numbers X00001 to X00999 are crossover cables. Therefore, they cannot be used with units with other serial numbers.

## **19 MONITOR OUT connector (BNC type)**

Outputs the same signal that is input to SDI IN.

### **Notes**

- The MONITOR OUT output is only output when the power of the unit is set to ON. There is not output when power is not being supplied to the DC IN connector, or when power is being supplied but the POWER switch is set to SAVE.
- The MONITOR OUT output does not meet the output standards of a main line channel.

## **20 SDI IN connector (BNC type)**

When using monitor mode, connect this to the SDI OUT connector on the camera using a BNC cable.

*For details on supported formats, see “Specifications” (page 10).*

## **21 – (minus) button**

Use this after pressing the BRIGHT, CONTRAST, or PEAKING button to change the respective value.

## **22 + (plus) button**

Use this after pressing the BRIGHT, CONTRAST, or PEAKING button to change the respective value.

## **23 PEAKING adjustment button**

Allows you to emphasize the outlines in the image. This does not affect the camera’s output signal.

## **24 CONTRAST adjustment button**

Allows you to adjust the contrast in the image. This does not affect the camera’s output signal.

## **25 BRIGHT adjustment button**

Allows you to adjust the brightness in the image. This does not affect the camera’s output signal.

## **26 HIGH BRIGHT (high-brightness display) button**

Brightens the display to improve visibility when shooting outdoors. This does not affect the camera’s output signal. The HIGH BRIGHT indicator lights during high-brightness display.

The display switches between high-brightness display and normal display with each press of the button. During high-brightness display, the CONTRAST button is disabled and the contrast cannot be adjusted.

## **27 Flexible arm attachment points**

Attach the supplied flexible arm here.

### **Note**

Do not block the ventilation inlet and outlet. Doing so may result in internal overheating and malfunctions.

# Attaching the Viewfinder to a Camera

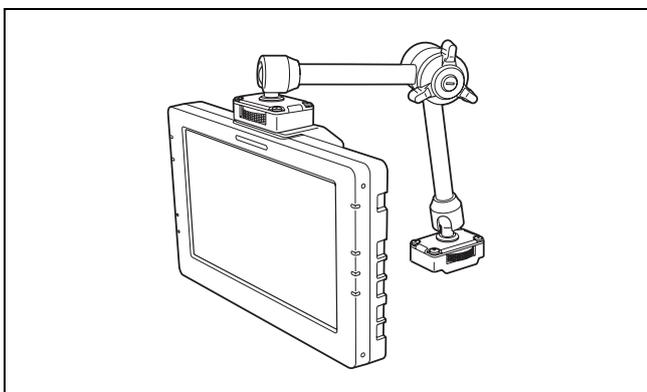
## Note

Depending on the version of your PMW-F5/F55, an image may not be displayed. In such cases, contact a Sony service representative.

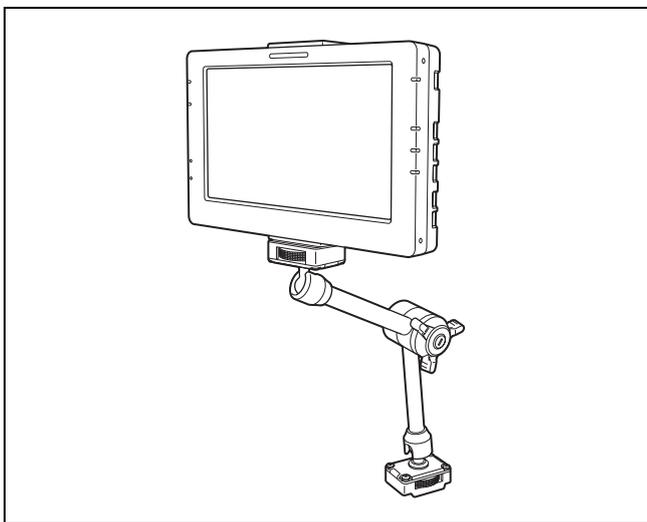
Attach this unit to the camera using the supplied flexible arm.

This unit has a total of three flexible arm attachment points at the top, bottom, and rear of the unit. Select an attachment point based on your intended use.

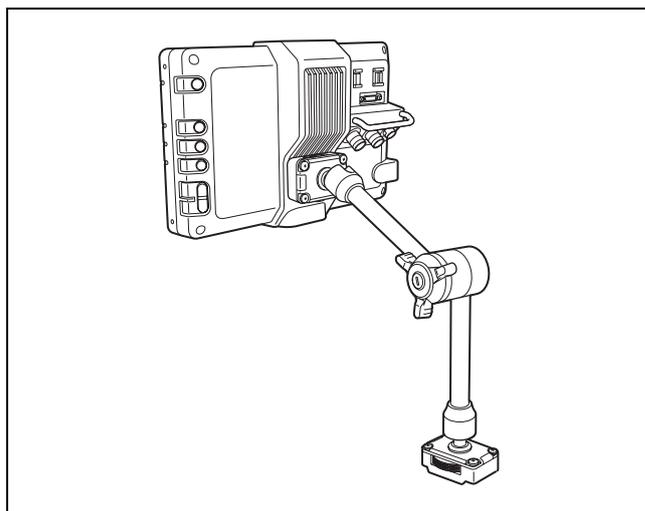
## Top attachment point



## Bottom attachment point



## Rear attachment point

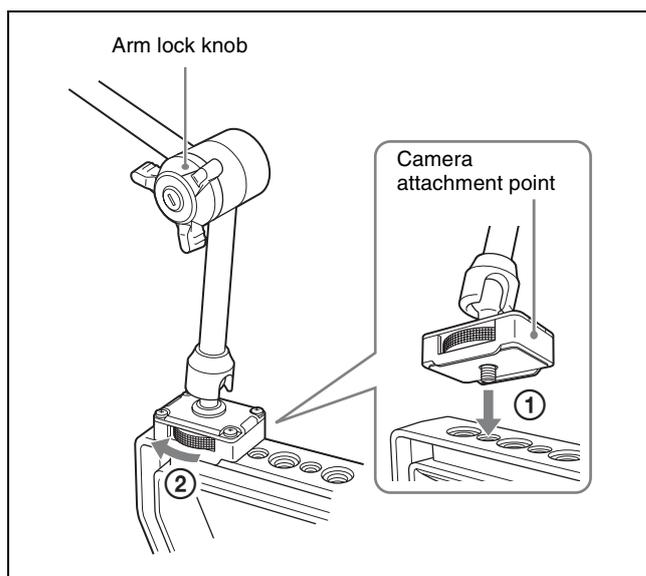


This section describes how to attach the flexible arm to the top of the unit as an example.

## Notes

- Hold both the viewfinder and the flexible arm firmly when performing attachment or detachment. In addition, the flexible arm may move at its joints if the arm lock knob is loose. Take care not to drop the viewfinder and flexible arm.
- Fixing screws are located on both ends of the flexible arm. Confirm the camera end and the viewfinder end, and perform attachment using the proper ends. Camera attachment point: Includes edges that fit the camera's handle. Viewfinder attachment point: Includes a positioning pin.

- 1 Attach the flexible arm to the camera.



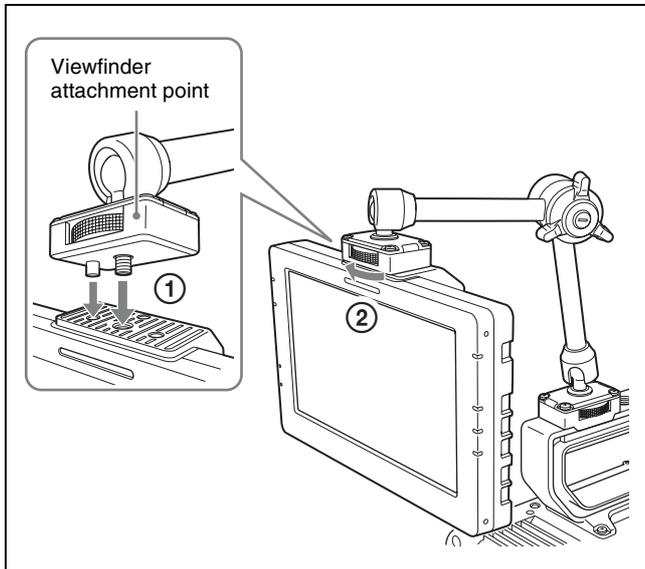
- ① Align the screw on the flexible arm's camera attachment point with screw hole (1/4-20UNC) on top of the camera's handle. Make sure the camera attachment point is oriented correctly in relation to the handle.

- ② Secure the fixing screw.

**Note**

Be sure to use a 1/4-inch screw hole. Using a screw hole of a different size may result in the flexible arm falling off and causing injuries.

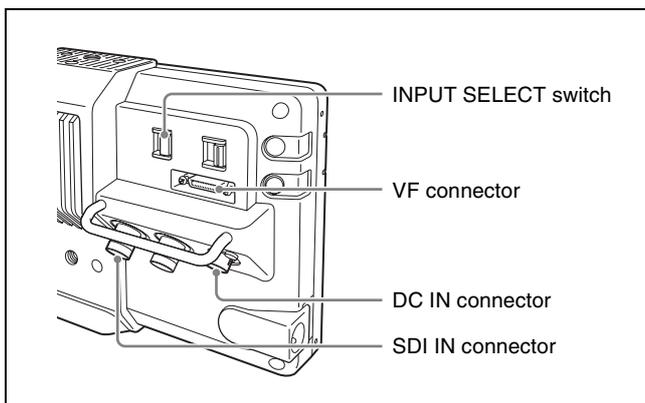
**2** Attach the viewfinder to the flexible arm.



- ① Align the screw and positioning pin on the flexible arm's viewfinder attachment point with the screw hole and positioning hole on the viewfinder. The flexible arm attachment point on the viewfinder has two positioning holes to the left and right of the screw hole. Select the appropriate hole based on your intended use.

- ② Secure the fixing screw.

**3** Connect the cables.



**Notes**

- Always turn off the camera before connecting the cables to the connectors on the camera. If you make the connection while the camera is on, the viewfinder may not function properly.

- Fully insert the cable connectors into the connectors and make sure they are secure. If the connector is not firmly connected, the image may be distorted and the tally indicator may not light properly.

**For use in VF mode**

- ① Use the VF connection cable (supplied) to connect the viewfinder's VF connector to the camera's VF connector. Connect the straight connector to the viewfinder's VF connector and the angle connector to the camera's VF connector. Verify the orientations of the connectors, and insert them until they click into place.

- ② Set the INPUT SELECT switch to the VF position.

**Note**

Be sure to check the shape of the VF connection cable's connector, and insert it in the proper orientation.

**For use in monitor mode**

- ① Use a BNC cable to connect the viewfinder's SDI IN connector to the camera's SDI OUT connector.

- ② Use the power cable (with "STRAIGHT CABLE" label) (supplied) to connect the viewfinder's DC IN connector to an external power supply. When using the PMW-F5/F55, connect to the DC OUT connector on the battery adaptor.

- ③ Set the INPUT SELECT switch to the SDI position.

**Detaching the Viewfinder**

- 1** Disconnect the cables connected to the viewfinder.

When disconnecting the VF connection cable, pull the connector straight out while pressing the lock release buttons on both sides of the connector.

**Note**

Forcibly pulling the connector without pressing the lock release buttons may damage the connector.

- 2** Loosen the fixing screw on the flexible arm's viewfinder attachment point, and detach the viewfinder from the flexible arm.
- 3** Loosen the fixing screw on the flexible arm's camera attachment point, and detach the flexible arm from the camera.

## Adjusting the Position

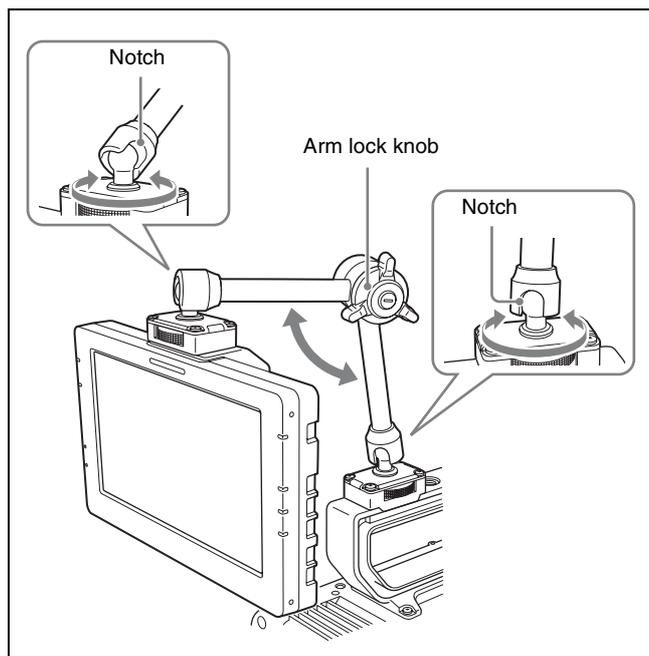
You can adjust the height, orientation, and angle of the viewfinder via the flexible arm's three joints.

### Center joint

Allows you to adjust the height by changing the angle of the arm's two poles.

### Top and bottom joints (ball type)

Allows you to change the orientation via rotation, or tilt the arm in the direction of the notches.



### Note

Hold the viewfinder firmly when loosening the arm lock knob to prevent it from dropping.

- 1 Turn the flexible arm's arm lock knob in the opposite direction of LOCK to loosen it.
- 2 Adjust the position.
- 3 Turn the arm lock knob in the LOCK direction to lock it into place.

The three joints of the flexible arm will be locked into place.

## Adjusting the Display

You can adjust the brightness, contrast, and peaking of the display using the BRIGHT, CONTRAST, and PEAKING buttons.

### Note

When using VF mode, changing the peaking value with the PEAKING button will not affect the display image unless the peaking setting on the camera is enabled.

### Example: Adjusting the contrast

- 1 Press the CONTRAST button.  
  
The CONTRAST indicator lights, and adjustment is enabled.
- 2 Change the values using the – and + buttons.  
  
The display image changes according to the changes. To restore the default values, press the – and + buttons simultaneously.
- 3 When you finish configuration, press the CONTRAST button again.  
  
The CONTRAST indicator turns off.

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## Error Messages

Display	Description
VF TEMP HIGH	Temperature error
DEVICE ERROR	Device error other than the above

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## Cleaning the Screen

When cleaning the viewfinder's screen, remove the viewfinder from the camera, and take care not to damage the components.

*For details on how to remove the viewfinder from the camera, see "Detaching the Viewfinder" (page 7).*

### Removing dust from the surface of the screen

Use a dust blower.

#### Note

Do not use thinner or other solvents.

### After use in harsh environments

Be sure to perform the following maintenance after using the viewfinder at dusty locations, beaches, hot springs, or other harsh environments.

- Use an airbrush to carefully remove any dust or sand from inside the viewfinder.
- Clean the contacts of the connectors.
- After performing the above maintenance, perform a basic operation test and check that the viewfinder is functioning properly.

# Specifications

## General

### Power supply

10.5 V to 17.0 V DC  
(supplied from the camera or external source)

### Power consumption

11.5 W (SDI connection, HIGH BRIGHT disabled)  
18.5 W (SDI connection, HIGH BRIGHT enabled)

### Operating temperature

0 °C to 40 °C (32 °F to 104 °F)

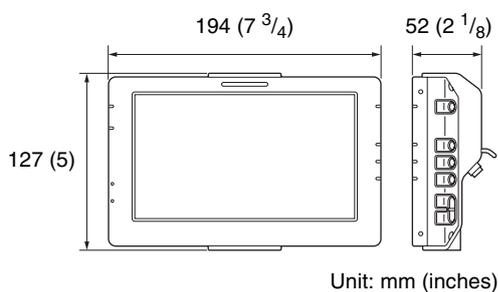
### Storage temperature

-20 °C to +60 °C (-4 °F to +140 °F)

### Mass

Approx. 700 g (1 lb 8.7 oz)

### Dimensions



## LCD

### 7.0-inch color TFT transmissive LCD

#### Display area

155.5 × 87.5 mm (6 1/8 × 3 1/2 inches) (H/V, 16:9 aspect ratio)

## Performance

### Brightness

Normal: 300 cd/m<sup>2</sup> (typical)  
HIGH BRIGHT mode: 850 cd/m<sup>2</sup> (typical)

### Resolution

1920 × 1080

### Color temperature

D65

## Supported formats (during HD-SDI connection)

Total number of scanning lines: 1125  
Number of effective scanning lines: 1080

Format	Frame rate
1080/59.94P	59.94
1080/50P	50
1080/29.97P	29.97
1080/25P	25
1080/24P	24
1080/23.98P	23.98
1080/59.94i	29.97
1080/50i	25
1080/29.97PsF	29.97
1080/25PsF	25
1080/24PsF	24
1080/23.98PsF	23.98

(Horizontal resolutions of 2048 are not supported.)

## Colors and signal levels displayed for false color (during S-Log2)

Color display	Signal level
Red	105.4% or higher
Yellow	102.4% to 105.4%
Pink	41.3% to 45.3%
Green	30.3% to 34.3%
Blue	2.5% to 4.0%
Purple	0% to 2.5%

## I/O interface

VF: 26-pin rectangular type (1)  
SDI IN: BNC type (1)  
MONITOR OUT: BNC type (1)  
DC IN: 4-pin (1), 10.5 V to 17.0 V DC

## Supplied accessories

Before Using this Unit (1)  
Operating Instructions (CD-ROM) (1)  
Power cable (4-pin, with "STRAIGHT CABLE" label) (1)  
VF connection cable (26-pin) (1)  
Flexible arm (1)  
Warranty (1)

## Related accessories

Solid-State Memory Camcorder  
PMW-F5, PMW-F55

Design and specifications are subject to change without notice.

**Notes**

- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.
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