SONY

4-425-716-**17**(1)

4425716170

Solid-State Memory Camcorder

PMW-200
PMW-100

Operating Instructions

Before operating the unit, please read this manual and the more detailed manual on the CD-ROM and retain it for future reference.

XDCAM SxS HDMI
MPEG HD422 Exmor

http://www.sony.net/

Printed in China

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WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

WARNING

When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 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.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- 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.

- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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.

Do not install the appliance in a confined space, such as book case or built-in cabinet.

IMPORTANT

The nameplate is located on the bottom.

WARNING

Excessive sound pressure from earphones and headphones can cause hearing loss.
In order to use this product safely, avoid prolonged listening at excessive sound pressure levels.

For the customers in the U.S.A.

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.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in Europe

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community.
Compliance with this directive implies conformity to the following European standards:

- EN55103-1 : Electromagnetic Interference(Emission)
- EN55103-2 : Electromagnetic Susceptibility(Immunity)

This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

This product has been manufactured by or on behalf of Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. Inquiries related to product compliance based on European Union legislation shall be addressed to the authorized representative, Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters, please refer to the addresses provided in the separate service or guarantee documents.

ATTENTION

The electromagnetic fields at the specific frequencies may influence the picture and sound of this camera.

For the State of California, USA only

Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate
Perchlorate Material : Lithium battery contains perchlorate.

For the customers in the USA and Canada
RECYCLING LITHIUM-ION BATTERIES

Lithium-Ion batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.
For more information regarding recycling of rechargeable batteries, call toll free 1-800-822-8837, or visit
http://www.rbrc.org/
Caution: Do not handle damaged or leaking Lithium-Ion batteries.

RECYCLE
RBRC
Li-Ion
1.800.822.8837

For the customers in Taiwan only

廢電池請回收

For the Customers in Brazil only
DESCARTE DE PILHAS E BATERIAS

Após o uso, as pilhas e/ou baterias deverão ser entregues ao estabelecimento comercial ou rede de assistência técnica autorizada.

Bateria de Íon-Lítio
Atenção:

Se a bateria não for manuseada corretamente, ela poderá explodir, causar incêndio ou até mesmo queimaduras químicas. Observe as seguintes precauções.

- Não desmonte, esmague ou exponha a bateria a qualquer choque ou impacto, como martelar, deixar cair ou pisar.
- Não provoque curto-circuito, nem deixe que objetos metálicos entrem em contato com os terminais da bateria.
- Não exponha a bateria a temperaturas elevadas, acima de 60 °C, como sob a luz solar direta ou no interior de um carro estacionado ao sol.
- Não incinere nem jogue no fogo.
- Não manuseie baterias de íon-lítio danificadas ou com vazamentos
- Mantenha a bateria fora do alcance de crianças pequenas.

- Mantenha a bateria seca
- Substitua apenas por uma bateria do mesmo tipo ou equivalente recomendada pela Sony.

Pilhas e Baterias não recarregáveis
Atenção:

Verifique as instruções de uso do aparelho certificando-se de que as polaridades (+) e (-) estão no sentido indicado. As pilhas poderão vazar ou explodir se as polaridades forem invertidas, expostas ao fogo, desmontadas ou recarregadas.
Evite misturar com pilhas de outro tipo ou com pilhas usadas, transportá-las ou armazená-las soltas, pois aumenta o risco de vazamento.
Retire as pilhas caso o aparelho não esteja sendo utilizado, para evitar possíveis danos na eventualidade de ocorrer vazamento.
As pilhas devem ser armazenadas em local seco e ventilado.
No caso de vazamento da pilha, evite o contato com a mesma. Lave qualquer parte do corpo afetado com água abundante.
Ocorrendo irritação, procure auxílio médico.
Não remova o invólucro da pilha.
Mantenha fora do alcance das crianças. Em caso de ingestão procure auxílio médico imediatamente.

For the customers in the U.S.A.

SONY LIMITED WARRANTY - Please visit http://www.sony.com/psa/warranty for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

For the customers in Canada

SONY LIMITED WARRANTY - Please visit http://www.sonybiz.ca/solutions/Support.do for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

For the customers in Europe

Sony Professional Solutions Europe - Standard Warranty and Exceptions on Standard Warranty. Please visit http://www.pro.sony.eu/ warranty for important information and complete terms and conditions.

For the customers in Korea

SONY LIMITED WARRANTY - Please visit http://bpeng.sony.co.kr/handler/BPAS-Start for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.
Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

AVERTISSEMENT

Lors de l'installation de l'appareil, incorporer un dispositif de coupure dans le câblage fixe ou brancher la fiche d'alimentation dans une prise murale facilement accessible proche de l'appareil. En cas de problème lors du fonctionnement de l'appareil, enclencher le dispositif de coupure d'alimentation ou débrancher la fiche d'alimentation.

Ne pas installer l'appareil dans un endroit confiné, par exemple une bibliothèque ou un placard encastré.

IMPORTANT
La plaque signalétique se situe sous l’appareil.

AVERTISSEMENT
Une pression acoustique excessive en provenance des écouteurs ou du casque peut provoquer une baisse de l’acuité auditive.
Pour utiliser ce produit en toute sécurité, évitez l’écoute prolongée à des pressions sonores excessives.

Pour les clients au Canada
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Pour les clients en Europe
Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) émise par la Commission de la Communauté européenne.
La conformité à cette directive implique la conformité aux normes européennes suivantes :
- EN55103-1 : Interférences électromagnétiques (émission)
- EN55103-2 : Sensibilité électromagnétique (immunité)

Ce produit est prévu pour être utilisé dans les environnements électromagnétiques suivants : E1 (résidentiel), E2 (commercial et industrie légère), E3 (urbain extérieur) et E4 (environnement EMC contrôlé, ex. studio de télévision).

Ce produit a été fabriqué par ou pour le compte de Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japon. Toutes les questions relatives à la conformité des produits basées sur la législation européenne doivent être adressées à son représentant, Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne.
Pour toute question relative au Service Après-Vente ou à la Garantie, merci de bien vouloir vous référer aux coordonnées qui vous sont communiquées dans les documents « Service (SAV) » ou Garantie.

ATTENTION
Le champ électromagnétique à des fréquences particulières peut avoir une incidence sur l'image et le son de cet appareil.

Pour les clients au Canada
GARANTIE LIMITÉE DE SONY - Rendez-vous sur http://www.sonybiz.ca/solutions/Support.do pour obtenir les informations importantes et l’ensemble des termes et conditions de la garantie limitée de Sony applicable à ce produit.

WARNUNG
Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.
Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

WARNUNG
Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder der Netzstecker muss mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden. Wenn während des Betriebs eine Funktionsstörung auftritt, ist der Unterbrecher zu betätigen bzw. der Netzstecker abzuziehen, damit die Stromversorgung zum Gerät unterbrochen wird.

Das Gerät nicht an Orten aufstellen, z.B. in Bücherregalen oder Einbauschränken, wo keine ausreichende Belüftung gewährleistet ist.

WICHTIG
Das Namensschild befindet sich auf der Unterseite des Gerätes.

WARNUNG
Zu hoher Schalldruck von Ohrhörern und Kopfhörern kann Gehörschäden verursachen.
Um dieses Produkt sicher zu verwenden, vermeiden Sie längeres Hören bei sehr hohen Schalldruckpegeln.

Für Kunden in Europa

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie der EG-Kommission.
Angewandte Normen:

- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
- EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit)

Für die folgenden elektromagnetischen Umgebungen: E1 (Wohnbereich), E2 (kommerzieller und in beschränktem Maße industrieller Bereich), E3 (Stadtbereich im Freien) und E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio).

Dieses Produkt wurde von oder für Sony Corporation, 1-7-1 Konan Minato-ku Tokio, 108-0075 Japan hergestellt.
Bei Fragen zur Produktkonformität auf Grundlage der Gesetzgebung der Europäischen Union kontaktieren Sie bitte den Bevollmächtigten Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Für Kundendienst oder Garantieangelegenheiten wenden Sie sich bitte an die in den Kundendienst- oder Garantiedokumenten genannten Adressen.

ACHTUNG

Die elektromagnetischen Felder bei den speziellen Frequenzen können Bild und Ton dieses Gerätes beeinflussen.

Für Kunden in Deutschland

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert „Batterie leer“ oder nach längerer Gebrauchsdauer der Batterien „nicht mehr einwandfrei funktioniert“. Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.

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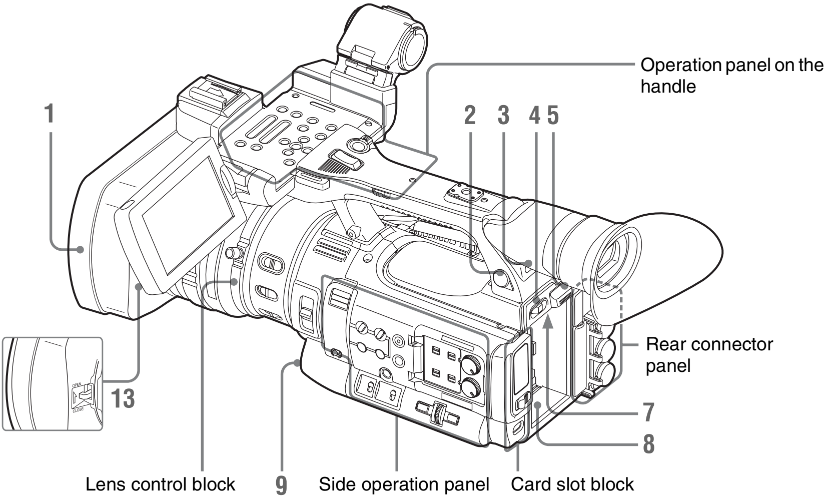
Overview

Part Identification

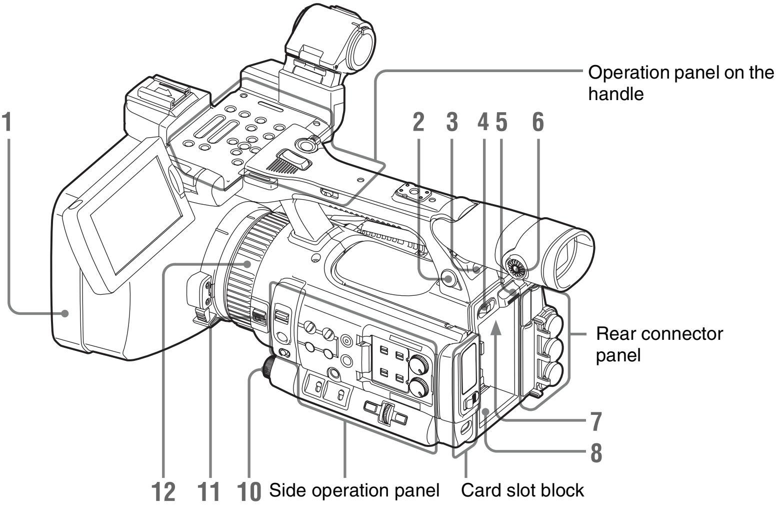
For functions and use, see the operating instructions (PDF).

Camcorder

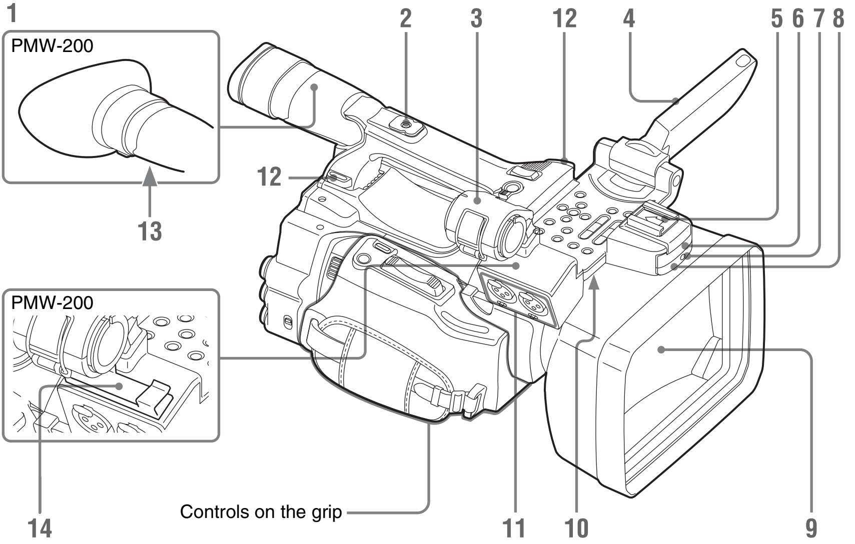
PMW-200


Operation panel on the handle
1
2
3
4
5
Rear connector panel
13
7
8
Lens control block
9
Side operation panel
Card slot block

PMW-100


Operation panel on the handle
1
2
3
4
5
6
Rear connector panel
7
8
12
11
10
Side operation panel
Card slot block

1. **Lens hood**
2. **Headphone connector (stereo mini jack)**
3. **Rear IR remote control receptor**
4. **Power switch**
5. **BATT RELEASE button**
6. **Eyepiece focusing knob (PMW-100 only)**
7. **DC IN connector**
8. **Battery pack receptacle**
9. **WHITE BAL (automatic white balance adjustment) button (PMW-200)**
10. **EXPOSURE dial/button (PMW-100)**
11. **FOCUS/ZOOM switch (PMW-100 only)**
12. **Lens operation ring (PMW-100 only)**
13. **Lens cap open/close lever (PMW-200 only)**


1
PMW-200
2
3
12
4
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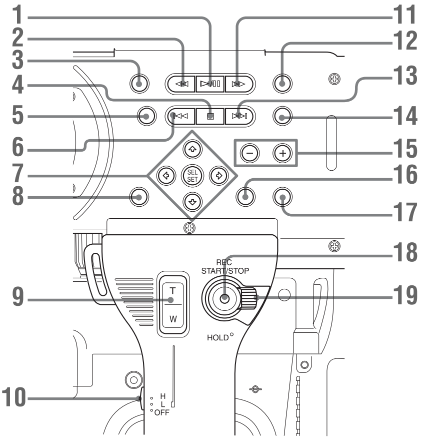
6
7
8
12
13
PMW-200
14
Controls on the grip
11
10
9

1. **Viewfinder**
2. **Rear accessory shoe**
3. **External microphone holder**
4. **LCD (Liquid Crystal Display) monitor**
5. **Front accessory shoe**
6. **Built-in microphone**
7. **REC/TALLY lamp**
8. **Front IR remote control receptor/ NightShot IR transmitter (PMW-100 only)**
9. **Lens cap (PMW-100 only)**
10. **Built-in speaker**
11. **AUDIO IN CH-1/CH-2 connectors (XLR) and input selection (LINE/MIC/ MIC+48V) switches**
12. **Hooks for the shoulder strap**
13. **Eyepiece focusing knob (PMW-200 only)**
14. **Microphone cable holder (PMW-200 only)**

Operation panel on the handle


1
2
3
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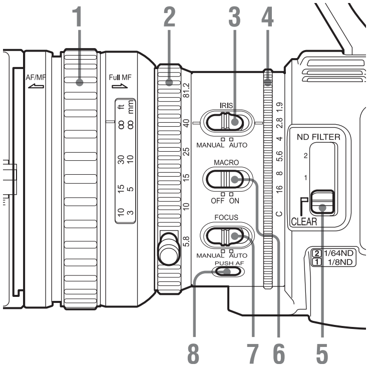
7
8
9
10
11
12
13
14
15
16
17
18
19
SEL SET
REC START/STOP
T
W
HOLD
H
L
OFF

1. **PLAY/PAUSE button**
2. **F REV (fast reverse) button**

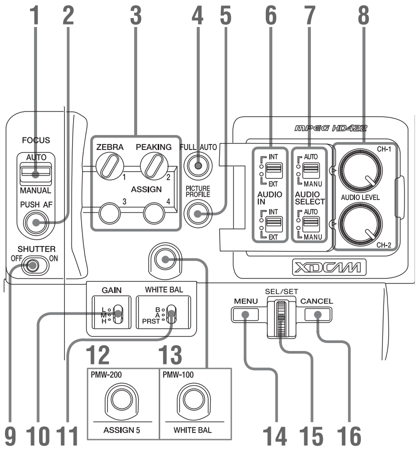
3. **THUMBNAIL button**
4. **STOP/CAM button**
5. **STATUS (status display on/off) button**
6. **PREV (previous) button**
7. **Up/down/left/right buttons, SEL/SET (select/set) button**
8. **MENU (menu display on/off) button**
9. **On-handle ZOOM button**
10. **Zoom speed switch**
11. **F FWD (fast forward) button**
12. **LCD BRIGHT (LCD brightness adjustment) button**
13. **NEXT (clip directional jump) button**
14. **DISPLAY button**
15. **VOLUME (monitor volume) buttons**
16. **CANCEL button**
17. **DURATION/TC/U-BIT (time data selection) button**
18. **REC START/STOP button**
19. **REC HOLD lever**

Lens control block (PMW-200 only)


1
2
3
4
AF/MF
Full MF
IRIS
MANUAL AUTO
MACRO
OFF ON
FOCUS
MANUAL AUTO
PUSH AF
ND FILTER
2
1
CLEAR
2 1/64ND
1 1/8ND
8
7
6
5

1. **Focus ring**
2. **Zoom ring**
3. **IRIS switch**
4. **Iris ring**
5. **ND FILTER select switch**
6. **MACRO switch**
7. **FOCUS switch**
8. **PUSH AF (momentary auto focus) button**

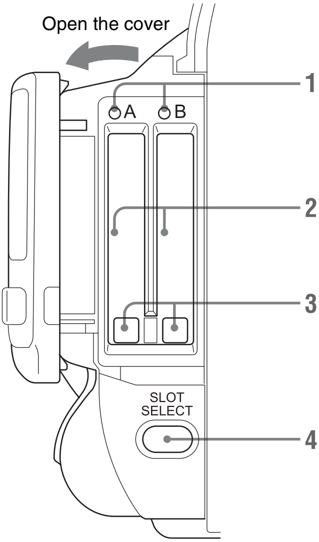
Side operation panel


1 2 3 4 5 6 7 8
FOCUS
AUTO
MANUAL
PUSH AF
SHUTTER
OFF ON
ZEBRA
PEAKING
1
2
ASSIGN
3
4
FULL AUTO
PICTURE PROFILE
INT
EXT
AUDIO IN
AUTO
MANU
AUDIO SELECT
CH-1
AUDIO LEVEL
CH-2
MPEG HD422
XDCAM
GAIN
L
M
H
WHITE BAL
B
A
PRST
MENU
SEL/SET
CANCEL
12
13
PMW-200
ASSIGN 5
PMW-100
WHITE BAL
9 10 11
14 15 16

1. **FOCUS (focus adjustment mode) switch (PMW-100 only)**
2. **PUSH AF (momentary auto focus) button (PMW-100 only)**
3. **ASSIGN (assignable) 1/2/3/4 buttons**
   ZEBRA is set to ASSIGN 1 and PEAKING is set to ASSIGN 2 by default.
4. **FULL AUTO button and indicator**
5. **PICTURE PROFILE button**
6. **AUDIO IN (audio input selection) switches**
7. **AUDIO SELECT (audio level control mode selection) switches**
8. **AUDIO LEVEL CH-1/CH-2 knobs**
9. **SHUTTER switch**
10. **GAIN switch**
11. **WHITE BAL (white balance memory) switch**
12. **ASSIGN (assignable 5) button (PMW-200)**
13. **WHITE BAL (automatic white balance adjustment) button (PMW-100)**
14. **MENU (menu display on/off) button**
15. **SEL/SET dial (jog dial)**
    It functions accordingly when you turn it up or down, or you push it horizontally.
    It is called the “jog dial” in the subsequent operating instructions.
16. **CANCEL button**

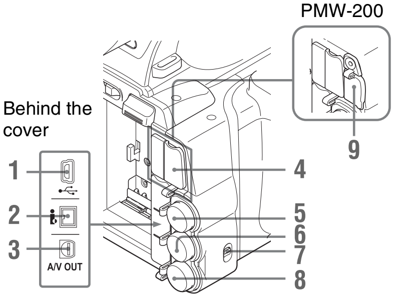
Card slot block

The SxS memory card slots and EJECT buttons are located behind the cover.


Open the cover
1
A
B
2
3
SLOT SELECT
4

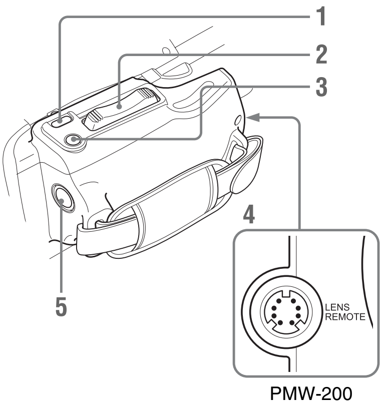
1. **ACCESS lamps**
2. **SxS memory card slots**
3. **EJECT (SxS memory card eject) buttons**
4. **SLOT SELECT (SxS memory card select) button**

Rear connector panel


PMW-200
Behind the cover
1
2
3
A/V OUT
4
5
6
7
8
9

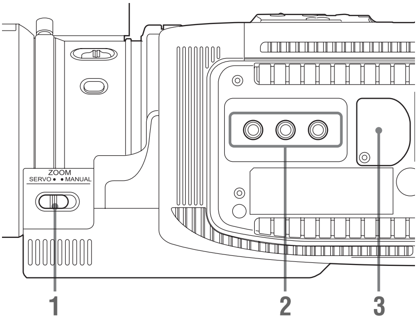
1. **USB connector (Mini B)**
2. **i.LINK (HDV/DV) connector (4-pin, S400 conforming to IEEE1394)**
3. **A/V OUT connector (audio/video multi output)**
4. **HDMI OUT connector**
5. **SDI OUT connector (BNC type)**
6. **TC IN (timecode input)/TC OUT (timecode output) connector (BNC type)**
7. **IN/OUT (input/output change) switch**
   Set this to IN to select GENLOCK IN, and set this to OUT to select TC OUT and VIDEO OUT.
8. **GENLOCK IN/VIDEO OUT (analog video output) connector (BNC type)**
9. **External device connector (PMW-200 only)**

Controls on the grip


1
2
3
4
5
LENS REMOTE
PMW-200

1. **REC REVIEW button**
2. **Power zoom lever**
3. **EXPANDED FOCUS button**
4. **LENS REMOTE (lens remote controller) connector (PMW-200 only)**
5. **REC START (start/stop recording) button**

Bottom



1. **ZOOM (zoom mode switching) switch (PMW-200 only)**
2. **Tripod receptacles**

   Note

   Check that the size of the hole matches the screw of the tripod. If they do not match, the camcorder cannot be attached to the tripod securely, and this may lead to the physical injury of the camera operator.
3. **Backup battery holder**

Power Supply

You can use a battery pack or AC power via an AC adaptor.
For safety, use only the Sony battery packs and AC adaptor listed below:

Lithium-ion Battery Pack

BP-U30
BP-U60
BP-U60T
BP-U90

Battery Charger/AC Adaptor

BC-U1
BC-U2

WARNING

Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

AVERTISSEMENT

N’exposez pas les batteries à une chaleur excessive, au soleil ou près d’un feu par exemple.

WARNUNG

Akkus dürfen keinesfalls übermäßiger Wärmeeinwirkung ausgesetzt werden, wie z.B. Sonneneinstrahlung, Feuer o. ä.

Note

The AC adaptor cannot be connected to the camcorder while the battery pack is inserted.

Using a Battery Pack

Fully insert the battery pack into the battery pack receptacle *(page 10)*, then slide it down to lock it.
To remove the battery pack, press and hold the BATT RELEASE button *(page 10)*, slide the battery pack upward to unlock it, then pull it out.

Notes

- Before use, charge the battery pack with the supplied BC-U1 or BC-U2 Battery Charger.
- A warm battery pack immediately after use may not be able to be fully recharged.
- The high-capacity BP-U90 Battery Pack is large, and protrudes from the camcorder when attached. When using the camcorder with the BP-U90 attached for extended recording periods, Sony recommends attaching the camcorder to a tripod for convenience.

Checking battery charge remaining

When recording or playback is in progress on the battery pack, an icon to show the current battery charge level and usage time remaining are displayed on the LCD monitor/viewfinder screen (“Preparations” in operating instructions (PDF)).

Icon	Remaining
▮▮▮▮▮	100% to 91%
▮▮▮▮	90% to 71%
▮▮▮	70% to 51%
▮▮	50% to 31%
▮	30% to 11%
▯	10% to 0%

The camcorder indicates the remaining usage time in minutes by calculating the available time with the battery pack if operation is continued at the current rate of power consumption.

If the battery charge remaining becomes low

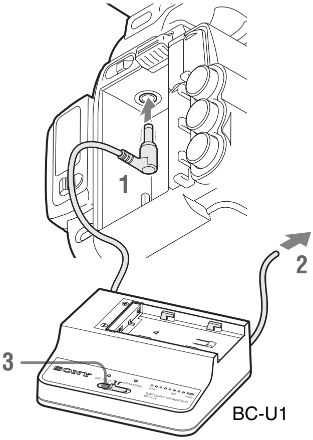
If the battery charge remaining decreases to a certain level during operation (Low BATT status), a low-battery message, flashing of the tally lamps, and a beep sound will warn you.
If the remaining further decreases to a level at which operation cannot be continued (BATT Empty status), a battery-empty message appears. Replace the battery pack with one that is fully charged.

To change the message levels

The Low BATT level is set to 10% of full charge, and the BATT Empty level is set to 3% of full charge at the factory. These settings can be changed with “Battery Alarm” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the OTHERS menu.

Using AC Power (DC IN Power)

Connection example: when connecting BC-U1



1. **Connect the DC power output cable of the BC-U1 to the DC IN connector of the camcorder.**
2. **Connect the power cord of the BC-U1 to an AC power source.**
3. **Set the mode switch of the BC-U1 to the DC OUT position.**

Turning the Power On/Off

To turn the power on, set the power switch *(page 10)* to the ON position (the **I** position). To turn the power off, set the power switch to the OFF position (the ⏻ position).

Notes

- This camcorder uses a little standby power even when the power switch is set to OFF. Remove the battery pack if the camcorder will not be used for a prolonged period.
- When removing the battery pack or the DC IN power, be sure to first set the power switch to the OFF position. Removing the battery pack or the DC IN power while the camcorder is ON may cause damage to the camcorder or the SxS memory card.

Setting the Clock

When you turn the camcorder on for the first time after purchasing or replacing the backup battery (“Appendices” in operating instructions (PDF)), the Initial Setting display appears on the LCD monitor/viewfinder screen.
Set the date and time of the built-in clock, using this display.

Time Zone
The value shows the time difference from UTC (Coordinated Universal Time).
Change the setting if needed.

Setting the time and date

Press the up/down/left/right buttons *(page 11)* or turn the jog dial *(page 11)* to move the cursor, then press the SEL/SET button or the jog dial to set each menu item. When you press the SEL/SET button or the jog dial when the cursor is on “Finish,” the Initial Setting display disappears and the clock setting is completed.

After the Initial Setting display disappears, “Time Zone” and “Clock Set” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the OTHERS menu can be used to set “Time Zone” and “Date/Time.”

Notes

- If the clock setting is cleared because of exhaustion of the backup battery while no operation power was being supplied (no battery pack and no DC IN connection), the Initial Setting display will be displayed when you turn the camcorder on at the next opportunity.
- While the Initial Setting display is shown, no other operation except turning the power off is permitted until you finish the setting for this display.

Adjusting the LCD Monitor and Viewfinder

Adjusting the LCD Monitor

The LCD monitor turns on when it is opened and turns off when it is returned to the park position.

Adjusting the angle

It can be rotated as much as 90 degrees in the direction facing the subject and as much as 180 degrees in the opposite direction.
When you rotate it 90 degrees toward the subject, the image on the monitor becomes upside down, indicating the mirror image of the subject. The display direction of the textual information is converted to the readable direction.

Adjusting the color, contrast, and brightness

These adjustments can be made using “LCD” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the LCD/VF SET menu. These adjustments of the LCD monitor have no effect on pictures being recorded.

Adjusting the Viewfinder

If the picture on the LCD monitor is hard to view under bright ambient light, you can use the viewfinder to check the picture.

Caution

Do not leave the camcorder with the eyepiece of the viewfinder facing the sun. Direct sunlight can enter through the eyepiece, be focused in the viewfinder, and cause fire.

Hereafter the viewfinder is referred to as “EVF” (abbreviation of Electronic Viewfinder).

Turning the EVF on/off

With the factory setting, the EVF is turned on when the LCD monitor is in its park position or is rotated to face the subject.

You can change the setting so that the EVF is always on regardless of the status in the LCD monitor, using “EVF” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the LCD/VF SET menu. Change the “Power” setting from “Auto” to “On.”

Adjusting the focus in the EVF

The eyepiece focusing (diopter compensation) knob *(page 10)* (PMW-200) / *(page 10)* (PMW-100) enables adjustment to match the eyesight of the operator, who can then view the image clearly through the eyepiece.

Adjusting the backlight

The brightness of the backlight for the EVF can be switched between High and Low.
Set “Backlight” in “EVF” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the LCD/VF SET menu.

Adjusting the contrast and brightness

Use “EVF” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the LCD/VF SET menu to make adjustments.
Adjusting the brightness and other items has no effect on pictures being recorded.

Using the IR Remote Commander

To use the IR Remote Commander

For controlling the camcorder from the IR Remote Commander, activate the remote control function of the camcorder after turning the power on.

Activating/deactivating the remote control function can be achieved using the Setup menu or an assignable button.

To activate using the menu

Press the MENU button to set the camcorder to Menu mode, select ▦ (the OTHERS menu (“Menu Configuration and Detailed Settings” in operating instructions (PDF))) and set “IR Remote” to “On.”

To activate using an assignable button

Assigning “IR Remote” to one of the assignable buttons (“Recording” in operating instructions (PDF)) permits you to activate/deactivate the remote control function by pressing the button.

Note

To avoid malfunctions, the remote control function is automatically deactivated when the camcorder is turned off. Activate the function each time when required after you turn the camcorder on.

WARNING

- Battery may explode if mistreated.
  Do not recharge, disassemble, or dispose of in fire.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

When you dispose of the battery, you must obey the law in the relative area or country.

AVERTISSEMENT

N’exposez pas les batteries à une chaleur excessive, au soleil ou près d’un feu par exemple.

ATTENTION

Il y a danger d’explosion s’il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur.

Lorsque vous mettez la batterie au rebut, vous devez respecter la législation en vigueur dans le pays ou la région où vous vous trouvez.

WARNUNG

Akkus dürfen keinesfalls übermäßiger Wärmeeinwirkung ausgesetzt werden, wie z.B. Sonneneinstrahlung, Feuer o. ä.

VORSICHT

Explosionsgefahr bei Verwendung falscher Batterien. Batterien nur durch den vom Hersteller empfohlenen oder einen gleichwertigen Typ ersetzen.

Wenn Sie die Batterie entsorgen, müssen Sie die Gesetze der jeweiligen Region und des jeweiligen Landes befolgen.

Using SxS Memory Cards

This camcorder records audio and video on SxS memory cards (optional) inserted in the card slots.

About SxS Memory Cards

Usable SxS memory cards

Use the following Sony-made SxS memory cards. Operations are not guaranteed with memory cards other than the following cards.

SxS PRO+ series

SxS PRO series

SxS-1 series

These cards comply with the ExpressCard standard.

For details on using SxS memory cards and usage-related precautions, refer to the instruction manual for the SxS memory card.

SxS, SxS PRO and SxS-1 are trademarks of Sony Corporation.
The ExpressCard word mark and logo are owned by Personal Computer Memory Card International Association (PCMCIA) and are licensed to Sony Corporation. All other trademarks are the property of their respective owners.

Inserting/Removing an SxS Memory Card

Inserting an SxS memory card

1 **Open the cover of the card slot block *(page 12)*.**

2 **Insert the SxS memory card into the slot with the SxS label facing right.**

The ACCESS lamp *(page 12)* lights in red then changes to green once the memory card is ready for use.

3 **Close the cover.**

Status indications by the ACCESS lamps

Card slots A and B are accompanied by the respective ACCESS lamps to indicate their statuses.

Lamp	Slot statuses
Lights in red	Accessing the loaded SxS memory card (writing/reading data)
Lights in green	Standby (ready for recording or playback using the loaded SxS memory card)
Off	• No SxS memory card is loaded. • The loaded card is invalid. • An SxS memory card is loaded, but another slot is active.

Removing an SxS memory card

1 **Open the cover of the card slot block, press the EJECT button *(page 12)*, then pull the button out.**

2 **Press the EJECT button again to remove the card.**

Note

Data are not guaranteed if the power is turned off or a memory card is removed while the card is being accessed. All data on the card may be destroyed. Be sure that the ACCESS lamps are lit in green or off when you turn off the power or remove memory cards.

Switching Between SxS Memory Cards

When SxS memory cards are loaded in both card slots A and B, press the SLOT SELECT button *(page 12)* to select the card you wish to use.
If a card becomes full during recording, switching to the other card is automatically executed.

Note

The SLOT SELECT button is disabled while playback is in progress. Switching is not executed even if you press the button. The button is enabled while the thumbnail screen is displayed (“Playback” in operating instructions (PDF)).

Formatting an SxS Memory Card

For an SxS memory card that is not formatted or that was formatted with another system, the message “Unsupported File System” is displayed on the LCD monitor/EVF screen.
Format the card as instructed in *“To execute formatting”* below.

To execute formatting

Using “Format Media” (“Menu Configuration and Detailed Settings” in operating instructions (PDF)) in the OTHERS menu, specify “Media(A)” (slot A) or “Media(B)” (slot B) then select “Execute.” On a confirmation message, select “Execute” again.

The in-progress message and status bar (%) are displayed, and the ACCESS lamp lights in red.
When formatting is completed, the completion message is displayed for three seconds.

Recording/playback during formatting

You can perform recording or playback using the SxS memory card in the other card slot while formatting is in progress.

If formatting fails

A write-protected SxS memory card or memory card that cannot be used with this camcorder will not be formatted.
As a warning message is displayed, replace the card with an appropriate SxS memory card, as per the instructions in the message.

Notes

- Use the format function of this camcorder to format SxS memory cards for use on this camcorder. The formats of cards formatted on other devices are not recognized as valid formats, making it necessary to format them again on this camcorder.
- All the data, including recorded pictures and setup files, are erased when a memory card is formatted.

Checking the Remaining Time Available for Recording

While recording (or standing by to record), you can check the time remaining for the SxS memory cards loaded in the card slots on the LCD monitor/EVF screen (“Preparations” in operating instructions (PDF)).
The available time for recording with the current video format (recording bit rate) is calculated according to the remaining space of each card and displayed in time units of minutes.
The remaining can also be checked in a meter format on the Battery/Media status screen (“Status Displays” in operating instructions (PDF)).

Note

A 🔒 icon appears if the memory card is write-protected.

Replacing an SxS memory card

- If the available time on two cards in total becomes less than 5 minutes, a message “Media Near Full,” flashing of the tally lamps, and a beep sound will warn you. Replace the cards with those with sufficient space.
- If you continue recording until the total remaining time reaches zero, the message changes to “Media Full,” and recording stops.

Note

Approximately 600 clips can be recorded on one SxS memory card at maximum.
If the number of recorded clips reaches the limit, the remaining time indication becomes “0,” and the message “Media Full” is displayed.

Restoring an SxS Memory Card

If an error occurs with data in a memory card for some reason, the card must be restored.

If an SxS memory card that needs to be restored is loaded, a message that prompts you to execute a restore operation is displayed on the LCD monitor/EVF screen.

To restore a card

Select "Execute" by pressing the up/down/left/right buttons or turning the jog dial, then push the SEL/SET button or the jog dial.

During restoration, the in-progress message and status bar (%) are displayed, and the ACCESS lamp is lit in red.
When restoration is completed, the completion message is displayed for three seconds.

If restoration fails

- A write-protected SxS memory card or one on which an error occurred cannot be restored. For such a card, a warning message is displayed. Release the write protection or replace the card, as per the instructions in the message.
- An SxS memory card on which an error occurred may become usable again through repeated formatting.
- In some cases, only parts of clips cannot be restored. Playback of the restored clips becomes possible again.
- The following operation may restore an SxS memory card for which the message "Could not Restore Some Clips" is repeatedly displayed each time you try the restoration process:
    1. Copy necessary clips to another SxS memory card, using the copy function ("Playback" in operating instructions (PDF)) of the camcorder or the dedicated application software (supplied) ("Connecting External Devices" in operating instructions (PDF)).
    2. Format the problem SxS memory card, using the format function of this camcorder.
    3. Return the necessary clips to the SxS memory card by copy operation.

Recording/playback during restoration

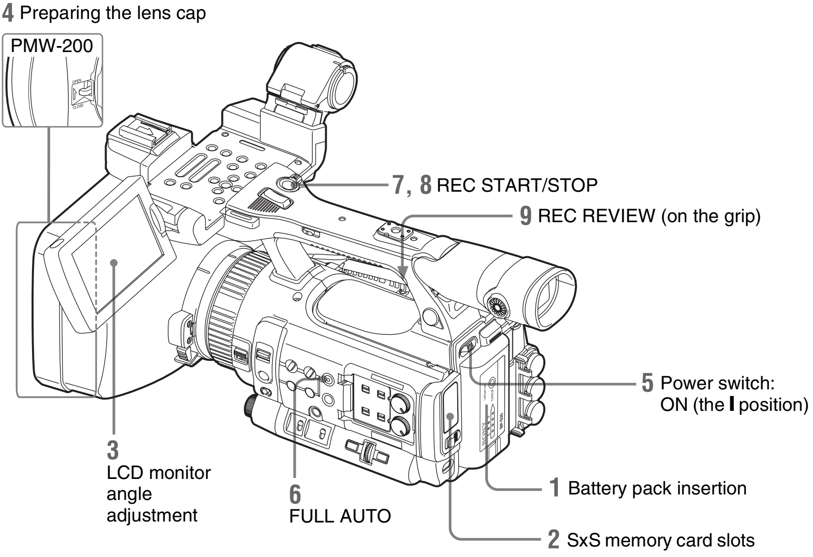
You can perform recording or playback using the SxS memory card in the other card slot while restoration is in progress.

Note

For restoration of media recorded with this unit, be sure to use this unit. Media recorded with a device other than this unit or with another unit of different version (even of the same model) may not be restored using this unit.

Recording

Basic Operation Procedure


4 Preparing the lens cap
PMW-200
OPEN
CLOSE
7, 8 REC START/STOP
9 REC REVIEW (on the grip)
5 Power switch: ON (the I position)
3 LCD monitor angle adjustment
6 FULL AUTO
1 Battery pack insertion
2 SxS memory card slots

Preparations

1 **Mount a fully charged battery pack.**

2 **Load SxS memory card(s).**

If you load two cards, recording is continued by automatically switching to the second card when the first card becomes full.

3 **Adjust the angle of the LCD monitor for the best view.**

When you wish to use the EVF, fold the LCD monitor to its park position and adjust the angle of the EVF.

4 **Open the lens cap/Remove the lens cap.**

PMW-200

Pull up the lens cap open/close lever to open the lens cap built in the lens hood.

PMW-100

Remove the lens cap.

5 **Set the power switch to the ON position.**

The recording screen is displayed.

When using the remote commander, activate the remote control mode *(page 17)*.

Note

When you hold the camcorder by the grip, support it from underneath with your left hand.

Recording (Full Auto mode)

6 **Press the FULL AUTO button so that the button indicator lights.**

Full Auto mode is turned on, activating the TLCS (Total Level Control System) (“Menu Configuration and Detailed Settings” in operating instructions (PDF)). Auto Iris (PMW-200)/Auto Exposure (PMW-100), AGC (Auto Gain Control), Auto Shutter, ATW (Auto Tracing White) are set to ON, consequently the brightness and white balance will be automatically adjusted.
When you wish to adjust them manually, turn Full Auto mode off, and see;

"Exposure" ("Recording" in operating instructions (PDF))
"Gain" ("Recording" in operating instructions (PDF))
"Electronic Shutter" ("Recording" in operating instructions (PDF))
"White Balance" ("Recording" in operating instructions (PDF))

Note

AF (Auto Focus) is not activated by setting the camcorder to Full Auto mode.

For information of automatic focus adjustment, see "Focus" ("Recording" in operating instructions (PDF)).

7 Press the REC START/STOP button.

You can also start recording with the REC START button on the grip.

(If you are using the IR Remote Commander, press the REC button simultaneously with the unmarked button.)

The front and rear tally lamps light and recording begins.

8 To stop recording, press the REC START/STOP button again.

You can also stop recording with the REC START button on the grip.

(If you are using the IR Remote Commander, press the REC PAUSE button simultaneously with the unmarked button.)

Recording stops and the camcorder enters STBY (recording standby) mode.

Note

If you press the REC START/STOP button to start next recording while previous data writing is not completed, the message "Cannot Proceed" may be displayed and recording may not start.

To prevent a switching error

The REC START/STOP button on the handle is incorporated with the REC HOLD lever. If the REC START/STOP button on the handle will not be used, it is recommended to set the lever to the HOLD position to lock the button and prevent unintentional starting/stopping of recording if you accidentally press the button.
To unlock the button, return the lever to its original position.

Checking the last recorded clip (Rec Review)

9 Press the REC REVIEW button.

The Rec Review function ("Recording" in operating instructions (PDF)) is activated, and the last recorded clip is played back for the specified time on the LCD monitor/EVF screen.

To delete clips

You can delete the last recorded clip by using the Last Clip DEL function ("Recording" in operating instructions (PDF)). Use the All Clips DEL function ("Recording" in operating instructions (PDF)) to delete all recorded clips from an SxS memory card. To specify a clip to be deleted, operate the camcorder from the thumbnail screen ("Playback" in operating instructions (PDF)).

Clip (recording data)

When you stop recording, video, audio and subsidiary data from the start to end of the recording are recorded as a single clip on an SxS memory card.

Clip name

For each clip recorded with this camcorder, a clip name is automatically generated according to the method selected with "Auto Naming" in "Clip" ("Menu Configuration and Detailed Settings" in operating instructions (PDF)) in the OTHERS menu.
The default setting of "Auto Naming" is "Plan." With this setting, a clip name defined in planning metadata is applied if a planning metadata file is loaded into the camcorder.
Change the "Auto Naming" setting to "Title" to apply a clip name composed of 4 to 46 alphanumerics and 4 numerics.
Example: ABCD0001
The block of 4 to 46 alphanumerics can be specified as desired using "Clip" in the OTHERS menu before you start recording. (It cannot be changed after recording.)
The value of the 4 numerics is automatically counted up in sequence.

Notes on Clips

The maximum file size for a clip is 43 GB for UDF, 4 GB for FAT in HD Mode, and 2 GB for FAT in SD Mode. If you continue recording for an extended period, recorded materials may be segmented into multiple files, depending on the file size (the maximum number of partitions is 99). The camcorder regards continuous recording as one clip even if it has been segmented into multiple files.

A long clip can be recorded crossing over two memory cards in slot A and B.

When you copy recorded clips to a hard disk, etc., via computer, it is recommended to use the dedicated application software, which you need to download, to maintain the continuity of recorded materials. For details, see *"Software Downloads" (page 31)*.

Note

If copying is done using Explorer (Windows) or Finder (MAC), the continuity and relationships of recorded materials may not be maintained.

Maximum duration of a clip

The maximum clip length is 24 hours for FAT (MP4 or AVI) and 6 hours for UDF (MXF).

If you exceed the maximum clip length, a new clip will be automatically created. You can check the new clip on the thumbnail screen.

Menu Configuration and Detailed Settings

Overview of the Setup Menus

Press the MENU button to display setup menus on the LCD monitor/EVF screen with settings necessary for recording and playback. (You can also display setup menus on an external monitor.)
Set items by selecting them from the following menus.

CAMERA SET menu: For setting items related to recording other than those for picture quality. (For picture quality-related items, use the PICTURE PROFILE menu ("Recording" in operating instructions (PDF)).)

AUDIO SET menu: For setting audio-related items.

VIDEO SET menu: For setting video output-related items.

LCD/VF SET menu: For setting items related to the LCD monitor/EVF display.

TC/UB SET menu: For setting items related to timecodes and user bits.

OTHERS menu: For setting other items.

Setup Menu Layers

MENU

- CAMERA SET
  - Gain Setup
  - Shutter
  - SLS/EX SLS (PMW-100 only)
  - EX Slow Shutter (PMW-200 only)
  - MF Assist
  - Color Bars
  - Flicker Reduce
  - Zoom Speed
  - Zoom Transition
  - Interval Rec
  - Frame Rec
  - Clip Cont.Rec
  - P.Cache Rec
  - S&Q Motion
  - Rec Review
  - TLCS
  - Shockless White
  - White Switch<B>
  - ATW Speed
  - ATW Mode
  - Wide Conversion
  - Steady Shot
  - Image Inversion (PMW-200 only)
  - NightShot (PMW-100 only)
  - Exposure (PMW-100 only)
  - Auto Black Bal.
  - Auto FB Adjust (PMW-200 only)
- AUDIO SET
  - Audio Input
  - Audio Output

(continues)

- VIDEO SET
  - Input Source Select
  - SDI/HDMI/i.LINK I/O Select
  - SDI/HDMI/Video Out Super
  - Down Converter
  - 23.98P Output
  - SDI Rec Control
  - Match Clip Name
- LCD/VF SET
  - LCD
  - EVF
  - Peaking
  - Marker
  - Zebra
  - Display On/Off
- TC/UB SET
  - Timecode
  - Users Bit
  - TC Format
- OTHERS
  - All Reset
  - Camera Data
  - Time Zone
  - Clock Set
  - Language
  - Assign Button
  - Tally
  - Hours Meter
  - IR Remote
  - Battery Alarm
  - Battery INFO
  - Genlock
  - Direct Menu
  - Trigger Mode
  - System
  - Clip
  - Copy All
  - Format Media
  - Plan.Metadata
  - Network (PMW-200 only)
  - Wi-Fi (PMW-200 only)
  - Version
  - Version (Lens) (PMW-100 only)
  - Version Up
  - Menu Scroll

Basic Menu Operations

Menu controls

MENU button *(page 11)*

To turn Menu mode to use Setup menus on/off.

Up/Down/Left/Right buttons, SEL/SET button *(page 11)*

When you press the up/down/left/right buttons, the cursor moves in the corresponding direction, permitting you to select menu items or setting values.
Press the SEL/SET button to enter the highlighted item.

Jog dial (SEL/SET dial) *(page 11)*

When you turn the dial, the cursor moves up or down, permitting you to select menu items or setting values.
Press the jog dial to select the highlighted item.

CANCEL button *(page 11)*

To return to the previous layer of the menu. An uncompleted change is canceled.

Note

In Expanded Focus mode (“Recording” in operating instructions (PDF)), the setup menu cannot be used. Press the EXPANDED FOCUS button to exit this mode.

Setting the Setup menus

Rotate the jog dial or press the up/down/left/right buttons to set the cursor to the icon of the menu you wish to set, then push the jog dial or SEL/SET button to select that menu.

- The menu item selection area can show 7 lines at maximum. When all the selectable items cannot be displayed at one time, you can scroll the display up or down by moving the cursor. A triangle appears at the upper or lower right corner of the menu item selection area to indicate that scrolling is enabled.
- For items having a wide range of available values (example: –99 to +99), the available value area is not displayed. The current setting is highlighted instead, indicating that the setting is ready for change.
- When you select "Execute" for an execution item, the corresponding function is executed.
- When you select an item that you must confirm before execution, the menu display temporarily disappears, and a confirmation message is displayed. Following the instructions of the message, and specify whether to execute or cancel.

Entering a character string

When you select an item for which a character string, such as a time value or filename, is to be specified, the input area for the character string is highlighted, and "SET" appears at the right end.

1. **Select characters by pressing the up/down/left/right buttons or turning the jog dial, then press the SEL/SET button or the jog dial to proceed.**

   The cursor moves to the next column.
   To return to the previous column, press the left button.

2. **Perform setting in the same manner up to the last column/digit.**

   The cursor moves to "SET."

3. **Press the jog dial or the SEL/SET button.**

   The setting is completed.

Appendices

Specifications

General

Mass

PMW-200

Approx. 2.3 kg (5 lb 1.1 oz)
(Camcorder only)
Approx. 2.7 kg (5 lb 15 oz)
(With lens hood (1), eyecup (1), battery pack BP-U30 (1), SxS memory card (1))

PMW-100

Approx. 1.5 kg (3 lb 4.9 oz)
(Camcorder only)
Approx. 1.8 kg (3 lb 15 oz)
(With lens hood (1), eyecup (1), battery pack BP-U30 (1), SxS memory card (1))

Dimensions

PMW-200

Approx. W172 mm × H164 mm × D419 mm
(6 $^7/_8$ × 6 $^1/_2$ × 16 $^1/_2$ inches)
(Outermost dimensions. Depth is the length from the front panel of the lens hood to the EVF eyecup.)
Approx. W172 mm × H164 mm × D317 mm
(6 $^7/_8$ × 6 $^1/_2$ × 12 $^1/_2$ inches)
(Not including extruding parts. Depth is the length from the front panel of the lens hood to the back of the unit.)

PMW-100

Approx. W167 mm × H164 mm × D335 mm
(6 $^5/_8$ × 6 $^1/_2$ × 13 $^1/_4$ inches)
(Outermost dimensions. Depth is the length from the tip of a front microphone to an EVF eyecup.)
Approx. W167 mm × H164 mm × D278 mm
(6 $^5/_8$ × 6 $^1/_2$ × 11 inches) (Not including extruding parts. Depth is the length from the tip of a front microphone to the back of the unit.)

Power requirements

DC 12 V (11.0 V ~ 17.0 V)

Power consumption

Approx. 12 W
while recording with LCD Off, EVF On and I/O Select Off
Approx. 17 W (PMW-200) /
Approx. 14 W (PMW-100)
while recording with LCD On, EVF On and I/O Select HD SDI & HD HDMI

Inrush current

(1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching): 50 A peak, 9.5 A r.m.s. (240V AC)
(2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zero-crossing): 3 A peak, 0.7 A r.m.s. (240V AC)

Operating temperature

0°C ~ +40°C

Storage temperature

–20°C ~ +60°C

Continuous operation time

(While recording with LCD Off, EVF On and I/O Select Off)
With battery pack BP-U90: approx. 6 hours
With battery pack BP-U60/BP-U60T: approx. 4 hours
With battery pack BP-U30: approx. 2 hours

Recording Format (Video)

UDF

HD422 50 1080 mode: CBR, maximum bit rate: 50 Mbps, MPEG-2 422P@HL
HD422 50 720 mode: CBR, maximum bit rate: 50 Mbps, MPEG-2 422P@HL

HQ 1920 × 1080 mode: VBR, 35 Mbps, MPEG-2 MP@HL
HQ 1440 × 1080 mode: VBR, 35 Mbps, MPEG-2 MP@HL
HQ 1280 × 720 mode: VBR, 35 Mbps, MPEG-2 MP@HL
SD mode: DVCAM

FAT
HQ 1920 × 1080 mode: VBR, 35 Mbps, MPEG-2 MP@HL
HQ 1440 × 1080 mode: VBR, 35 Mbps, MPEG-2 MP@HL
HQ 1280 × 720 mode: VBR, 35 Mbps, MPEG-2 MP@HL
SP 1440 × 1080 mode: CBR, 25 Mbps, MPEG-2 MP@H-14
SD mode: DVCAM

Recording Format (Audio)

UDF
HD422 mode: LPCM 24-bit, 48 kHz, 4 channels
HQ mode: LPCM 16-bit, 48 kHz, 4 channels
SD DVCAM mode: LPCM 16-bit, 48 kHz, 4 channels

FAT
HQ mode: LPCM 16-bit, 48 kHz, 4 channels
SD mode: LPCM 16-bit, 48 kHz, 2 channels

Recording Frame Rate

UDF
HD422 mode: MPEG-2 422P@HL, 50 Mbps / CBR
  1920 × 1080/59.94i, 50i, 29.97p, 25p, 23.98p
  1280 × 720/59.94p, 50p, 29.97p, 25p, 23.98p
HQ mode: MPEG-2 MP@HL, 35 Mbps / VBR
  1920 × 1080/59.94i, 50i, 29.97p, 25p, 23.98p
  1440 × 1080/59.94i, 50i, 29.97p, 25p, 23.98p
  1280 × 720/59.94p, 50p, 23.98p
SD mode: DVCAM
  720 × 486/59.94i, 29.97PsF
  720 × 576/50i, 25PsF

FAT
HQ mode: MPEG-2 MP@HL, 35 Mbps / VBR
  1920 × 1080/59.94i, 50i, 29.97p, 25p, 23.98p
  1440 × 1080/59.94i, 50i, 29.97p, 25p, 23.98p
  1280 × 720/59.94p, 50p, 29.97p, 25p, 23.98p
SP mode: MPEG-2 MP@H-14, 25 Mbps / CBR
  1440 × 1080/59.94i, 50i, 23.98p (2-3 pull down)
SD mode: DVCAM
  720 × 480/59.94i, 29.97PsF
  720 × 576/50i, 25PsF

Recording/Playback Time

UDF
HD422 mode
  When using SBP-128B (128 GB): Approx. 240 minutes
  When using SBP-64B / SBS-64G1A (64 GB): Approx. 120 minutes
  When using SBS-32G1A (32 GB): Approx. 60 minutes
HQ mode
  When using SBP-128B (128 GB): Approx. 360 minutes
  When using SBP-64B / SBS-64G1A (64 GB): Approx. 180 minutes
  When using SBS-32G1A (32 GB): Approx. 90 minutes
SD mode: DVCAM
  When using SBP-128B (128 GB): Approx. 440 minutes
  When using SBP-64B / SBS-64G1A (64 GB): Approx. 220 minutes
  When using SBS-32G1A (32 GB): Approx. 110 minutes

FAT
HQ mode
  When using SBP-128B (128 GB): Approx. 400 minutes

When using SBP-64B / SBS-64G1A (64GB): Approx. 200 minutes
When using SBS-32G1A (32GB): Approx. 100 minutes

SP mode
When using SBP-128B (128 GB): Approx. 560 minutes
When using SBP-64B / SBS-64G1A (64GB): Approx. 280 minutes
When using SBS-32G1A (32GB): Approx. 140 minutes

SD mode: DVCAM
When using SBP-128B (128 GB): Approx. 520 minutes
When using SBP-64B / SBS-64G1A (64GB): Approx. 260 minutes
When using SBS-32G1A (32GB): Approx. 130 minutes

Note

These approximate playback times depend on operating conditions, available memory, etc.

Lens

PMW-200

Lens mount
Fixed type

Zoom ratio
14×, power/manual switchable

Maximum relative aperture
1:1.9

Focal length
5.8 mm ~ 81.2 mm
(equivalent to 31.4 mm ~ 439 mm on a 35 mm lens)

Focus area
Auto/manual switchable
800 mm to ∞ (macro OFF)
50 mm to ∞ (macro ON, wide end)
735 mm to ∞ (macro ON, tele end)

Iris
Auto/manual switchable
F1.9 to F16 and C (close)

Picture stabilizing function
ON/OFF possible, shift-lens system

Filter thread
M 77 mm, pitch 0.75 mm

Macro
ON/OFF possible

PMW-100

Lens mount
Fixed type

Zoom ratio
10×, power/manual switchable

Focal length
5.4 mm ~ 54 mm
(equivalent to 40 mm ~ 400 mm on a 35 mm lens)

Focus area
Auto/manual switchable
10 mm to ∞ (wide end)
800 mm to ∞ (tele end)

Iris
Auto/manual switchable
Wide: F1.8 (tele: F2.9) to C (close)

Picture stabilizing function
ON/OFF possible, shift-lens system

Filter thread
M 37mm, pitch 0.75 mm

Camera Block

Pickup device
PMW-200: 1/2-inch triple chip “Exmor” CMOS image sensor
PMW-100: 1/2.9-inch single-chip “Exmor” CMOS image sensor

Effective picture elements
1920 (H) × 1080 (V)

Built-in filters (PMW-200 only)

ND filters
CLEAR: Clear
1: 1/8ND
2: 1/64ND

Minimum subject illumination

PMW-200: 0.12 lx (typical) (1920 × 1080/59.94i, F1.9, +18 dB, 64-frame accumulation)
PMW-100: 0.40 lx (typical) (1920 × 1080/59.94i, F1.8, +18 dB, 64-frame accumulation)

Shutter speed

1/32 ~ 1/2000 sec.

Slow Shutter (SLS/EX SLS)

2, 3, 4, 5, 6, 7, 8, 16, 32, 64 frames

Slow & Quick Motion

720p: 1 ~ 60 frames, 1 ~ 50 frames (for PAL Area, UDF)
1080p: 1 ~ 30 frames, 1 ~ 25 frames (for PAL Area, UDF)

White balance

Preset mode (3200K), Memory A mode, Memory B mode/ATW mode

Gain

–3, 0, 3, 6, 9, 12, 18 dB, AGC

Inputs/Outputs

Audio input

XLR type 3-pin (2), female, LINE/MIC/MIC+48V switchable
LINE: +4 dBu
MIC: -70 dBu to -30 dBu
(Reference input level 0 dBu=0.775 Vrms)

Video output

BNC type (1), switchable with GENLOCK IN connector, HD-Y/composite signal
1.0 Vp-p, 75 Ω

AV multi-output

AV multi-connector (1), audio output, composite signal
Audio: -10 dBu (Under 47 kΩ load, reference level)
Analog composite signal: NTSC or PAL

SDI output

BNC type (1), switchable with HD-SDI/SD-SDI
SMPTE292M/259M

i.LINK

IEEE 1394, 4-pin connector (1), HDV (HDV 1080i) / DV input/output, S400

Timecode input

BNC type (1), switchable with TC OUT connector
0.5 V to 18 Vp-p, 10 kΩ

Timecode output

BNC type (1), switchable with TC IN connector
1.0 Vp-p, 10 kΩ

GENLOCK input

BNC type (1), switchable with VIDEO OUT connector
1.0 Vp-p, 75 Ω

USB

mini-B (1)

Headphone output

Stereo minijack (1)
-18 dBu (Reference level output under 16Ω load)

Speaker output

Monaural
Output: 250 mW

DC input

DC jack

HDMI output

Type A (1)

LENS REMOTE (lens remote controller) connector (PMW-200 only)

8-pin round (1)

External device connector (PMW-200 only)

4-pin (Type A) (1)

Displays

Viewfinder

PMW-200: 0.45-inch color LCD: 852 (H) × 480 (V), 16:9

PMW-100: 0.24-inch color LCD: 392 (H) × 224 (V), 16:9

LCD monitor

3.5-inch color LCD monitor: 852 (H) × 3 (RGB) × 480 (V), 16:9

Internal Microphone

Internal microphone

Omnidirectional stereo electret condenser microphone

Media Slot Block

Type

ExpressCard/34 (2)

Package Configuration

Lens hood (1)
  This is pre-installed to the PMW-200.
Lens cap (PMW-100 only) (1)
  This is pre-installed to the camcorder.
Infrared Remote Commander (1)
EVF eyecup (1)
USB cable (1)
AV connecting cable (1)
Shoulder strap (1)
Wi-Fi adaptor bracket (PMW-200 only) (1)
BP-U30 battery pack (1)
Battery Charger/AC Adaptor: BC-U1 (1)
Lithium battery (CR2032 for backup) (1)
  This is pre-installed to the camcorder.
Lithium battery (CR2025 for the IR Remote Commander) (1)
  This is pre-installed to the IR Remote Commander.
CD-ROM
  Operating instructions in PDF (1)
Operating Instructions (1)

Software Downloads

When the unit is used with a PC connection, download device drivers, plug-ins, and application software, where applicable, from the Sony Professional products web site.

Sony Professional products web site homepage:

U.S.A.	http://pro.sony.com
Canada	http://www.sonybiz.ca
Latin America	http://sonypro-latin.com
Europe, Middle East and Africa	http://www.pro.sony.eu
Japan	http://www.sonybsc.com
Asia Pacific	http://pro.sony-asia.com
Korea	http://bp.sony.co.kr
China	http://pro.sony.com.cn

Optional Accessories

Battery pack
  BP-U30, BP-U60, BP-U60T, BP-U90
Battery charger/AC adaptor
  BC-U1, BC-U2
SxS memory card
  SxS PRO Series
  SxS-1 Series
SxS memory card USB reader/writer
  SBAC-US20
Media Adaptor
  QDA-EX1 (for XQD memory cards)
  MEAD-MS01 (for "Memory Stick PRO-HG Duo" HX series)
  MEAD-SD01 (for SDHC cards)
Wi-Fi adaptor
  CBK-WA01 (PMW-200)
Wireless adapter
  CBK-WA100 (PMW-200)
USB wireless LAN module
  IFU-WLM3 (PMW-200)
Electret condenser microphone
  ECM-VG1, ECM-673, ECM-674, ECM-678, ECM-MS2, ECM-680S

Wireless microphone
    UWP-V1*, UWP-V2*
Wide-conversion lens
    VCL-HG0737K (PMW-100)
    VCL-EX0877 (PMW-200)
Memory recording unit
    HVR-MRC1K*

* To attach accessories to the rear accessory shoe, use the optional cold shoe kit (part no.: X-2546-633-1).

Design and specifications are subject to change without notice.

Notes

- Always make a test recording, and verify that it was recorded successfully.
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- 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.