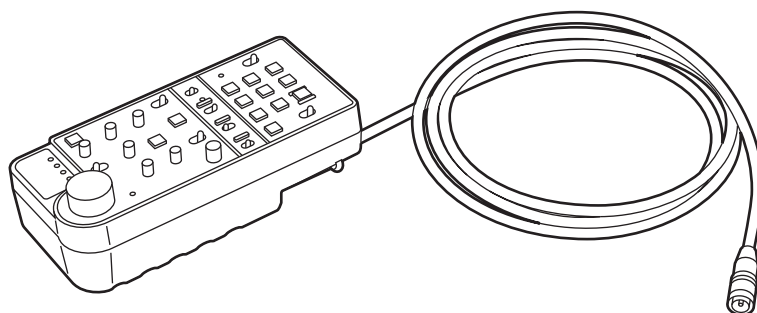


## Operating Instructions/ Bedienungsanleitung/ Mode d'emploi/Istruzioni per l'uso/ Instrucciones de funcionamiento/ 取扱説明書

Extension Control Unit/Erweiterungs-Steuereinheit/  
Module de commande d'extension/  
Unità di controllo prolunga/  
Unidad de control de extensión/  
エクステンションコントロールユニット

Model No. **AG-EC4G**



Before operating this product, please read the instructions carefully and save this manual for future use.

Bitte lesen Sie diese Bedienungsanleitung vor der Inbetriebnahme dieses Produkts aufmerksam durch, und bewahren Sie sie für späteres Nachschlagen auf.

Avant d'utiliser l'appareil, lire attentivement ce mode d'emploi, et le conserver à des fins de référence ultérieure.

Prima di far funzionare questo prodotto, leggere attentamente le istruzioni e conservare questo manuale per riferimenti futuri.

Antes de utilizar este producto, lea cuidadosamente las instrucciones y guarde este manual por si tiene que utilizarlo en el futuro.

このたびは、“パナソニック製品”をお買い上げいただき、まことにありがとうございます。

■取扱説明書をよくお読みのうえ、正しく安全にお使いください。

■ご使用前に「安全上のご注意」(2～3ページ)を必ずお読みください。

■保証書は「お買い上げ日・販売店名」などの記入を確かめ、取扱説明書とともに大切に保管してください。

保証書別添付

製造番号は、品質管理上重要なものです。  
製品本体と保証書の製造番号をお確かめください。

# Raccordement de l'unité d'extension AG-EC4G

Certaines fonctions peuvent être contrôlées à distance si l'unité d'extension AG-EC4G (accessoire en option) est raccordée à la caméra.

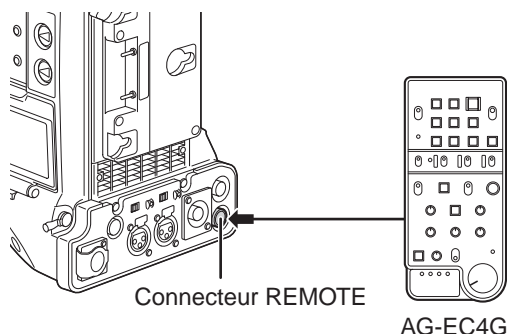
Lorsque l'AG-EC4G est raccordée, la caméra se met automatiquement en mode contrôle à distance dès que les commutateurs de la caméra et de l'AG-EC4G sont positionnés sur ON.

Le mode contrôle à distance est annulé lorsque l'unité d'extension AG-EC4G est retirée ou mise hors tension.

## ■ Fonctionnement des boutons/commutateurs en mode contrôle à distance

Les commutateurs et boutons suivants de la caméra ne fonctionnent pas en mode contrôle à distance.

- Commutateur SHUTTER
- Bouton MENU
- Molette JOG
- Commutateur de sélection GAIN
- Commutateur de sélection OUTPUT/AUTO KNEE
- Commutateur WHITE BAL
- Bouton USER MAIN
- Bouton USER 1
- Bouton USER 2
- Commutateur OUTPUT CHARACTER



### ◆ REMARQUE

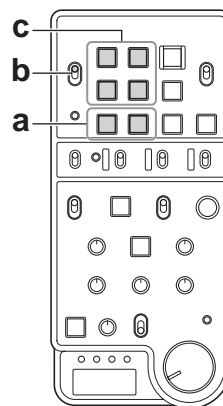
- **Veillez bien à désactiver les commutateurs POWER de la caméra et de l'AG-EC4G avant de raccorder ou débrancher le câble de l'unité d'extension.**
- **N'utilisez que les câbles spécifiés ou les câbles en option pour raccorder l'AG-EC4G. L'utilisation d'autres câbles risque d'endommager l'équipement.**

Pour plus de détails sur le courant fourni par le connecteur REMOTE, consultez la page 144.

- **Les données des opérations effectuées par l'AG-EC4G sont généralement stockées dans la caméra.**
- **Le réglage du commutateur DATA-SAVE de l'AG-EC4G sur OFF réinitialise les valeurs suivantes sur les valeurs avant le raccordement de l'AG-EC4G.**
  - Valeur de balayage synchrone
  - Valeur de décollement maître
  - Valeurs GAIN (R/B)
  - Valeurs de décollement (R/V/B)
  - Valeur GAIN (en position LOW)

## Ajustement du point de convergence

Le point de convergence peut être ajusté à l'aide des boutons de l'AG-EC4G.



- a **Boutons USER (USER MAIN/USER1)**
- b **Commutateur RECORDER**
- c **Boutons ◀◀REW, ▶▶FF, ■STOP et ▶PLAY**

- 1 Sur l'écran SW MODE, attribuez R CONV au bouton USER MAIN ou USER1.
- 2 Appuyez sur le bouton USER auquel R CONV a été attribué sur l'AG-EC4G.
- 3 Réglez le commutateur RECORDER sur ENABLE.
- 4 Ajustez la convergence à l'aide des boutons ■STOP et ▶PLAY pour un ajustement approximatif et des boutons ◀◀REW et ▶▶FF pour un ajustement précis.
  - STOP, ◀◀REW : pour rapprocher le point de convergence
  - ▶PLAY, ▶▶FF : pour éloigner le point de convergence

### ◆ REMARQUE

Le bouton USER2 sur l'AG-EC4G fonctionne comme le bouton THUMBNAIL pour la caméra.

# Contents

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<b>Read this first!</b> .....	<b>1</b>
<b>Features</b> .....	<b>2</b>
<b>Precautions for when Connecting the System</b> .....	<b>2</b>
<b>System connections</b> .....	<b>3</b>
<b>Parts and their functions</b> .....	<b>4</b>
Control panel.....	4
Connector area .....	6
Rear Side .....	6
<b>Menu displays for VIDEO OUT output</b> .....	<b>6</b>
<b>Connection cable</b> .....	<b>7</b>
<b>Specifications</b> .....	<b>8</b>

Thank you for purchasing this AG-EC4 Extension Control Unit (which will subsequently be referred to in these instructions as “the unit”).

The unit is a remote control unit used to remotely control the camera functions, recording, and playback by connecting it to a camera recorder.

## Features

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- Dedicated buttons corresponding to the USER MAIN button, the USER1 button, and the USER2 button on the memory card camera recorders and certain models of the DVCPRO HD camera recorders are implemented.
- 4-digit numeric display function is implemented so the shutter speed can be confirmed even during synchroscanning.
- A large volume knob is implemented so precise lens focusing can be performed.
- Pedestal for each RGB channel can be adjusted.
- Extension of up to 50m is possible by using the optional cable (sold separately).

## Precautions for when Connecting the System

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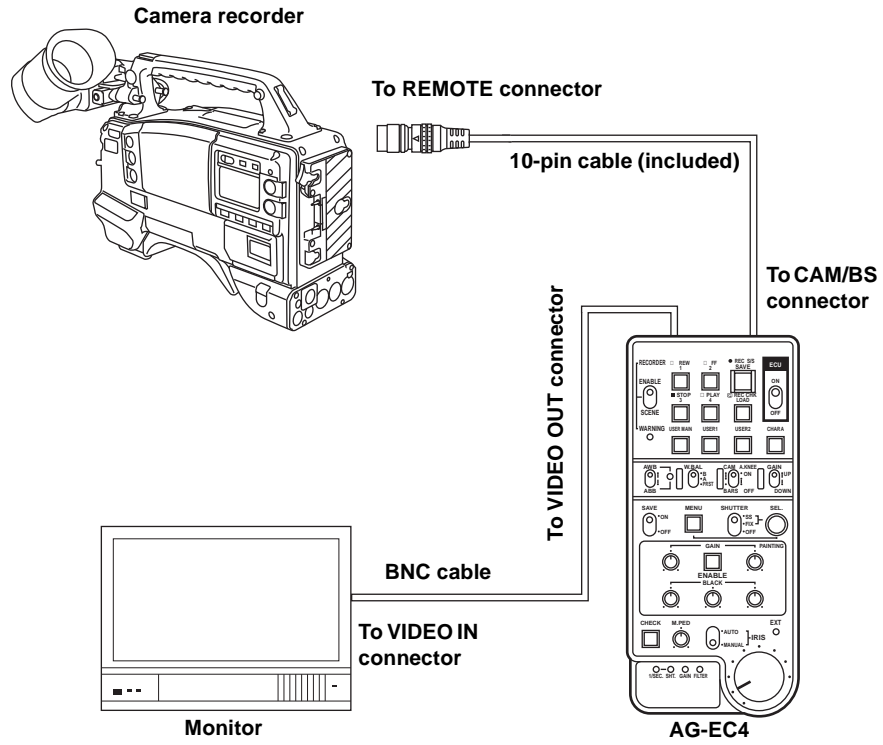
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Be careful of the following items when connecting the unit with a camera recorder or base station (AG-BS300, option):

- Use the attached dedicated cable.
- Use the optional dedicated cable when extending the length.  
Operation may become unstable due to power supply voltage drops etc. when multiple 10m cables are connected.
- Turn on the power of the unit after turning on the power of the camera recorder or the base station.
- Most camera recorder operations will be possible on the remote control unit once connecting the unit and turning the unit on.  
(However, POWER ON/OFF, AWB/ABB, MODE CHECK, and REC START/STOP can also be operated on the camera recorder)
- Operation becomes possible on the camera recorder when the power of the unit is turned off, even if the unit is connected.

# System connections

The unit is connected to a camera recorder, basestation, monitor, etc. for use.



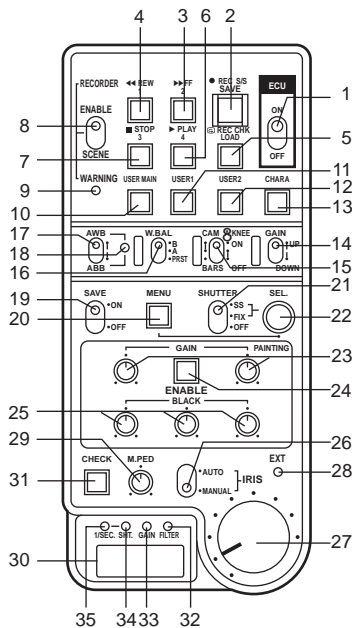
## <Note>

Video is not output from the VIDEO OUTPUT connector of the unit when it is connected to the base station, and the system mode is set to 1080/23.98PsF.

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# Parts and their functions

## Control panel



### 1. Power switch

Main power ON/OFF switch of the AJ-EC3P.

### 2. REC S/S button

When this is pressed, the camera recorder starts recording; when it is pressed again, it stops recording. This button works in exactly the same way as the camera recorder's REC button. The button remains lighted during recording.

### 3. FF (fast forward) button

Press this to fast forward. The button remains lighted during fast forwarding.

### 4. REW (rewind) button

Press this to rewind. The button remains lighted during rewinding.

### 5. REC CHK button

It is possible to check what has just been recorded (2-second rec review) by pressing this button during rec pause. For the DVCPRO HD camera recorder, the tape is cued to provide continuity from one shot to the next when this is pressed while pausing the playback.

### 6. PLAY (playback) button

Press this to view the playback images on the camera recorder's viewfinder or on a color video monitor if one is being used. The button remains lighted during playback.

### 7. STOP button

Press this to stop the playback.

### 8. RECORDER ENABLE switch

This enables the VTR operations 2 through 7 to be performed on the unit.

**ON:** The operations performed by the unit are enabled.

**OFF:** The operations performed by the unit are disabled.

### 9. WARNING INDICATOR

Displays the error occurrence in the recording unit.

### 10. USER MAIN BUTTON

This performs the same function as the USER MAIN button of the camera recorder. Operation will follow the function that was assigned in the camera recorder.

### 11. USER1 BUTTON

This performs the same function as the USER1 button of the camera recorder. Operation will follow the function that was assigned in the camera recorder.

### 12. USER2 BUTTON

This performs the same function as the USER2 button of the camera recorder. Operation will follow the function that was assigned in the camera recorder. It will operate with a fixed function when connected to certain camera recorders.

### 13. CHARA BUTTON

This is a button to control the ON/OFF of the characters superimposed on the composite signal of the camera recorder.

### 14. GAIN (gain selector) switch

This is used to select the video amplifier's gain depending on the lighting conditions that prevail during shooting.

### 15. CAM AUTO KNEE / BARS switch

This selects the video signals to be output from the camera area to the VTR area, viewfinder and video monitor.

#### BARS:

Color bar signals are output. Set the switch to this position in the following circumstances:

- ◆ When the video monitor is to be adjusted
- ◆ When color bar signals are to be recorded

#### CAM.AUTO KNEE OFF :

The images shot by the camera are output. The AUTO KNEE circuit does not work. MANUAL KNEE is set as the camera recorder's initial setting.

#### CAM.AUTO KNEE ON :

The images shot by the camera are output. The AUTO KNEE circuit works.

## 16.W.BAL switch

### PRST :

This will read out the preset value of the white balance stored in the camera recorder.  
Set to this position if there is no time to adjust the white balance.

### A or B :

This will read out the value stored in the white balance A or B in the camera recorder.  
When the 17. AWB/ABB (auto white balance/auto black balance adjustment) switch is set to the AWB position, the white balance is automatically adjusted, and the value adjusted is stored in memory A or memory B.

The white balance value corresponding to the FILTER control position can also be stored in the memory by setting FILTER INH to OFF. For further details, refer to the respective pages in the Operating Instructions of the camera recorder being used.

## 17.AWB/ABB (auto white balance/auto black balance adjustment) switch

**AWB:** Set here for the white balance to be adjusted automatically.  
When the 16. W.BAL switch is set to A or B at this time, the value to which the balance was adjusted will be stored in memory A or memory B.

**ABB:** Set here for the black balance to be adjusted automatically. The value to which the balance was adjusted will be stored in a dedicated memory.

## 18.AWB/ABB LED

### LED lighted:

Auto white balance / auto black balance in progress.

### LED dark:

Auto white balance / auto black balance completed.

### LED stops blinking and goes off:

Auto white balance / auto black balance error.

## 19.SAVE switch

This is a switch to select either to store or not to store the settings made by the unit into the camera recorder.

**ON:** Settings made by the unit are stored into the camera recorder.

**OFF:** Settings made by the unit are not stored into the camera recorder. The settings set by the unit will not be reflected and the previous status will be restored when the power of the unit or the camera recorder is turned off.

## 20.MENU switch

This displays the menus at the VIDEO OUT connector.

## 21.SHUTTER switch

This is used to switch operation of the shutter.

**OFF:** Turning off the shutter operation.

**FIX:** Turning on the fixed shutter mode.

**S.S:** Turning on the synchro scan mode.

When the 26. AUTO IRIS switch is ON and the menu is set not displayed, the shutter speed is set by using 22. SETUP dial. The value of shutter speed is displayed on the 30. Number display LED.

## 22.SETUP dial

This is used to set the SETUP menus. After a menu has been selected using the dial, press the dial to enter it.

## 23.PAINTING GAIN knob

This is the R/B/Gain volume.

## 24.PAINTING ENABLE switch

It enables operation by the PAINTING gain and black volume.

## 25.PAINTING BLACK knob

This is the pedestal volume for the R/G/B.

## 26.AUTO IRIS switch

AUTO IRIS ON/OFF switch

### <Note>

Set the lens manual/auto selector switch to AUTO.

## 27.IRIS knob

When the 26. AUTO IRIS switch is ON, this control adds the control value to, or subtracts it from, the IRIS LEVEL on the user menu. This addition or subtraction is performed over a range of -2 steps to +2 steps.  
When the 26. AUTO IRIS switch is OFF, it is used to adjust the iris finely.

## 28.EXT INDICATOR

This lights when a lens extender is used.

## 29.M.PED knob

This is used to set the master pedestal.

## 30.Number display LED

The iris value and the gain, shutter speed or filter positions are displayed on this LED. Normally, the iris value is shown but when the gain value, shutter speed or filter position has been changed, the respective value is displayed.

### <Note>

When the 35. SHUTTER SPEED INDICATOR is ON, the \*\*\*\* part of the shutter speed value 1/\*\*\*\* is displayed.

## 31.CHECK switch

The gain value, shutter speed, filter position and iris value are displayed in this order on the number display LED by pressing this switch. The iris display is restored after a prescribed period of time has elapsed.

## Parts and their functions (Continued)

### 32. FILTER INDICATOR

This lights when the filter position is shown on the 30. Number display LED.

### 33. GAIN INDICATOR

This lights when the gain value is shown on the 30. Number display LED.

### 34. SHUTTER INDICATOR

This is lit when the shutter is displayed on the 30. Number display LED.

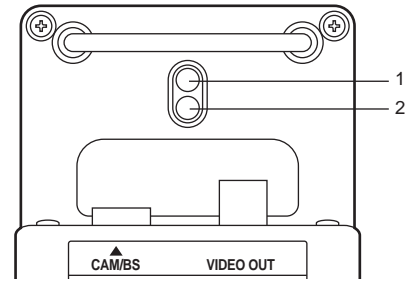
### 35. SHUTTER SPEED INDICATOR

When displaying the shutter in 30. Number display LED, the displayed format can be distinguished with the ON/OFF.

**ON:** Shutter speed is displayed. The \*\*\*\*\* part of the shutter speed value 1/\*\*\*\*\* is displayed in the 30. Number display LED.

**OFF:** Shutter angle is displayed.

## Rear Side



### 1. Frequency characteristic adjustment knob

This is used to adjust the frequency characteristic of the video signal.

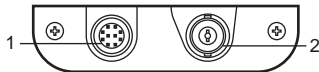
### 2. Level adjustment knob

This will adjust the level of the video signal.

#### <Note>

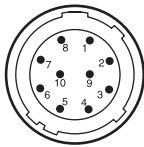
When performing adjustment with the above knobs, remove the rear cover, and adjust by inserting a small screwdriver etc.

## Connector area



### 1. CAM/BS connector

This is used to connect the unit with the camera recorder or basestation (AJ-BS300, option).



Pin No.	Signal
1	CAM DATA (H)
2	CAM DATA (C)
3	CAM CONT (H)
4	CAM CONT (L)
5	ECU_ON
6	Video input
7	GND (Video)
8	Standby
9	+12 V (IN)
10	GND

### 2. VIDEO OUT connector

Video signal output from the camera recorder is output without modification.

## Menu displays for VIDEO OUT output

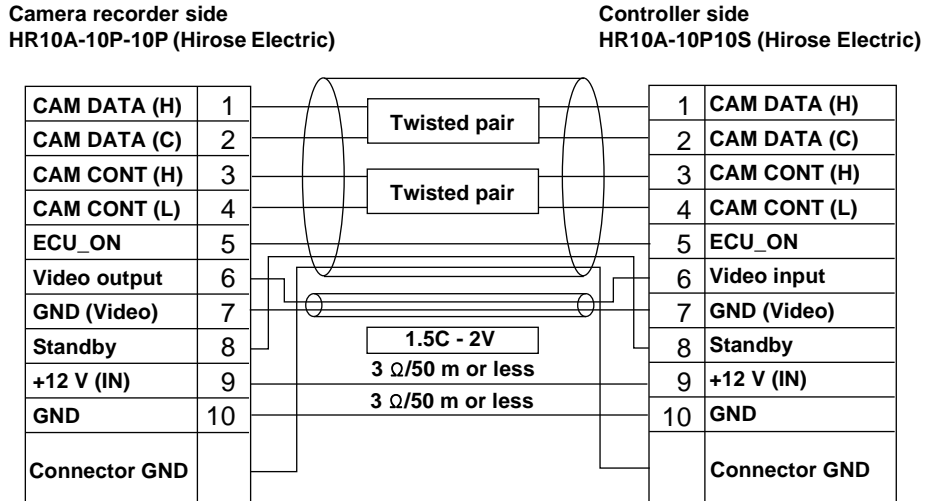
Settings menu is displayed in the VIDEO OUT terminal when the MENU switch is set to ON, and CHARACTER button is turned ON.

This menu screen is characters superimposed on the composite signal of the camera recorder.

# Connection cable

A 10 m connection cable is attached to the unit. To extend the cable, use the optional dedicated cable.  
 If several 10 m cables are connected in tandem, the power supply may be unstable due to voltage drops etc.  
 In case of emergency, voltage of up to 17V is to be applied to the DC 12V of the camera recorder. If the input voltage to the unit is 8 V or less, operation becomes unstable.  
 Refer to the following. A twisted-pair cable must be used for the control line of the 10-pin cable. Attenuation of the coaxial cable must be set to around -6 dB at maximum in 10 MHz.

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# Specifications

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<b>Power requirements: DC 12 V</b> <b>Consumption: 2.5 W</b>
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 indicates safety items.

**Allowable ambient temperature:**  
0 °C to 40 °C (32 °F to 104 °F)

**Allowable relative humidity:**  
85% or less

**Dimensions (W × H × D):**  
82 mm × 56 mm × 180 mm  
(excluding knobs)

**Weight:**  
610 g

Weight and dimensions when shown are approximately.  
Specifications are subject to change without notice.