# DTA−55

## Triax Adaptor

OPERATION MANUAL

Ikegami

**CE**

**Products conforming to RoHS directive**

# DTA-55

### Triax Adaptor

## OPERATION MANUAL

## Ikegami

## English

### Instructions for Disposal of Electric and Electronic Equipment in Private Household

**Disposal of used Electric and Electronic Equipment**
**(Applicable in the European Union and other European countries with separate collection systems)**

This symbol on the product, or in the related documents in the package, indicates that this product shall not be treated as normal household waste. Instead, it should be taken to a proper applicable collection point or depot for the recycling of electric and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent possible negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.
For more detailed information about recycling of this product, please contact your local city authority, your household waste disposal service or the place where you purchased the product.

## Deutsch

### Vorschriften für die Entsorgung von elektrischen und elektronischen Geräten in Privathaushalten

**Entsorgung von gebrauchten elektrischen und elektronischen Geräten**
**(In der Europäischen Union und anderen europäischen Ländern mit separaten Sammelsystemen anwendbar.)**

Das auf dem Produkt angebrachte Symbol, bzw. die Symbole in den in der Packung beiliegenden Dokumenten, weisen darauf hin, dass dieses Produkt nicht als normaler Haushaltsmüll behandelt werden darf. Es muss deshalb an einer dafür vorgesehenen Sammelstelle abgeliefert werden, in der das Recycling von elektrischen und elektronischen Geräten durchgeführt wird.

Durch die ordnungsgemäße Entsorgung dieses Produkts tragen Sie dazu bei, dass unsere Umwelt und unsere Gesundheit nicht durch unsachgemäße Entsorgung negativ beeinflusst wird. Mit dem Recycling von Materialien tragen wir zur Bewahrung der natürlichen Ressourcen bei.
Für nähere Informationen hinsichtlich des Recyclings für dieses Produkt sprechen Sie bitte mit Ihrer zuständigen Behörde, Ihrer Hausmüll-Entsorgungsstelle oder dem Geschäft, wo Sie das Produkt gekauft haben.

## Français

### Consignes de mise au rebut des appareils électriques et électroniques dans les foyers privés

**Mise au rebut des appareils électriques et électroniques**
**(Applicable dans l'Union Européenne et autres pays d'Europe ayant un système de récupération séparé)**

Ce symbole apposé sur le produit ou dans les documents liés se trouvant dans l'emballage indique que ce produit ne doit pas être traité comme un déchet ménager normal. Il doit être porté à un point de récupération correct ou à un dépôt pour le recyclage des appareils électriques et électroniques.

En vous assurant que ce produit est correctement mis au rebut, vous aiderez à empêcher les conséquences possibles pouvant affecter l'environnement et la santé humaine, pouvant être causées par une mauvaise manipulation des déchets de ce produit. Le recyclage des matériaux favorise la conservation des ressources naturelles.
Pour des informations plus détaillées concernant le recyclage de ce produit, veuillez contacter les autorités locales, votre service de mise au rebut des déchets ménagers ou le lieu d'achat de votre produit.

## Español

### Instrucciones para eliminar equipos eléctricos y electrónicos de una casa privada

**Eliminación de equipos eléctricos y electrónicos usados**
**(Normas aplicables en la Unión Europea y en otros países europeos con diferentes sistemas de recogida)**

Este símbolo en el producto, o en los documentos relacionados, indica que este producto no deberá ser tratado como un residuo doméstico normal. En cambio, deberá ser llevado a un punto o lugar donde los equipos eléctricos y electrónicos sean recogidos para ser reciclados.

Asegurándose de que este producto sea eliminado correctamente, usted ayudará a impedir las posibles consecuencias negativas sobre el medio ambiente y la salud humana que podrían ser causadas por el manejo inapropiado de este producto como residuo doméstico. El reciclado de los materiales ayudará a conservar los recursos naturales.
Para conocer una información más detallada acerca del reciclado de este producto, póngase en contacto con las autoridades de su localidad, con su servicio de recogida de residuos domésticos o con el comercio donde adquirió el producto.

# PRODUCTS CONFORMING TO RoHS DIRECTIVE

Following products described in this manual are products conforming to RoHS directive.

• DTA-55 Triax Adaptor

Products conforming to RoHS directive include products that do not contain specified hazardous substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) in electrical and electronic equipment excluding following exemption applications based on the EU directive (Directive2002/95/EC).

\* About RoHS Directive
The RoHS directive stands for "the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment' and is one of environmental directives in Europe. This directive restricts the use of specified hazardous substances in electrical and electronic equipment.

## ● Applications exempted from RoHS directive compliance

Followings applications are permitted as exemptions from RoHS directive compliance.
1. Mercury in compact fluorescent lamps not exceeding 5mg per lamp
2. Mercury in straight fluorescent lamps for general purposes not exceeding:
    • halophosphate 10mg
    • triphosphate with a normal lifetime 5mg
    • triphosphate with a long lifetime 8mg
3. Mercury in straight fluorescent lamps for special purposes
4. Mercury in other lamps not specifically mentioned in this Annex
5. Lead in the glass of cathode ray tubes, electronic components and fluorescent tubes
6. Lead as an alloying element in steel containing up to 0.35% lead by weight, aluminum containing up to 0.4% lead by weight and as a copper alloy containing up to 4% lead by weight
7. Lead in following items
    • Lead in high melting temperature type solders (i.e. tin-lead solder alloys containing more than 85% lead)
    • Lead in solders for servers, storage and storage array systems
    • Lead in solders for network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunication
    • Lead in electronic ceramic parts (e.g. piezoelectronic devices)
8. Cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations
9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators
10. Lead used in compliant pin connector systems
11. Lead as a coating material for the thermal conduction module C-ring
12. Lead and cadmium in optical and filter glass
13. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight
14. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages
15. Decabrominated diphenyl ether (Deca-BDE) in polymeric applications

## MAINTENANCE OF PRODUCTS CONFORMAING TO RoHS DIRECTIVE

Work with care about followings for maintenance of products conforming to RoHS directive.

### 1. Identification

- For products conforming to RoHS directive, the letter "E" is appended at the end of the serial number on the label. For models that the letter cannot be appended to the serial number, the "E" will be described in distinguishable position on the label. A description example on a main label is shown below.



Label
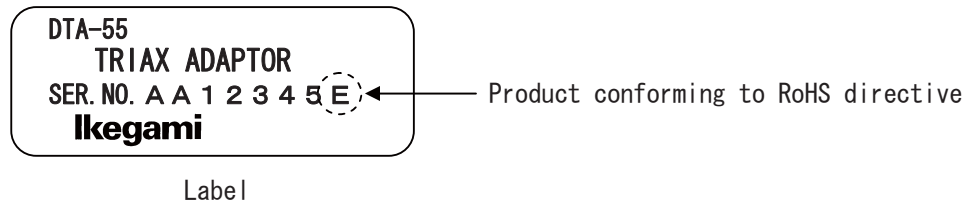
- Print-circuit board of the products conforming to RoHS directive is manufactured by following methods.
  [1] Blue resist ink is used for the print-circuit board. (The colour of conventional print-circuit board is green.)
  [2] Either one of the following marks is indicated by a serigraph or label.



Phase 3A          Phase 3

### 2. Soldering

Since the melting point of lead-free solder used for the products conforming to RoHS directive is 20 to 45 degrees Celsius higher than that of conventional solder with lead (Sn-Pb eutectic solder), a high temperature needs to be set to a soldering iron. Taking allowable temperature limit of the parts and stable work into consideration, use a soldering iron with excellent thermal recovery characteristics.
- Recommended solder composition is "Sn/3.0Ag/0.5Cu" or equivalent.
- Separate the soldering iron exclusively for RoHS products and the soldering iron for conventional use.
- Set the temperature of the soldering bit to 350 to 370 degrees Celsius.
  The temperature may need to be adjusted according to the size of the copper foil land on the print-circuit board and the tip width of the soldering bit.
- Finish by a lead-free solder looks dull or whitish compared to conventional solder with bit.
- If the customer mixed the lead-solder with the main body wiring or the circuit board, it becomes guarantee off the subject. Ikegami doesn't guarantee to do the repair work. Because the solder polluted with lead cannot be removed.

### 3. Parts

Be sure to use conforming to RoHS directive.

# INFORMATION TO THE USER

1. 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 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.
   Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2. Declaration of conformity
   The CE mark means that the following products will meet the Directive 2004/108/EC, 2006/95/EC and the Standards EN55103-1 E4-E5 (for EMC), EN60950-1 (for LVD).

3. Please use it by less than 10m, when you use cable of MIC1 OUT, MIC2 OUT, and INTERCOM.

4. We carried out a test in accordance with EN55103-1 Annex B. As a result, the value of the inrush current is as follows.

   Inrush current
   BST-55 + HDK-55 + DTA-55 + VF421HD + OCP-200 : 16.6A

# SAFETY PRECAUTIONS

This manual describes the precautions using various pictorial symbols for you to use the product safety. Please read these precautions thoroughly before use. The symbols and e¥meanings are as follows.

**The following hazard alert symbols are used to indicate the level of impact on the body or property when you do not follow the precautions.**

| ⚠ WARNING | Indicates that mishandling of the product by ignoring this label may lead to a danger resulting in a serious injury or death. |
|---|---|
| ⚠ CAUTION | Indicates that mishandling of the product by ignoring this label may lead to a danger resulting in an injury or property damage. |

**The following symbols are used to indicate the expected injury or hazards when you do not follow the precautions.**

| ⚠ | Indicates general cautions on such matters as safe work, procedure, and installation location. Mishandling may not directly lead to death, injury, or property damage. |
|---|---|
| ⚡ | Indicates that mishandling may cause an electric shock. |
| 🔥 | Indicates that mishandling may cause a fire. |
| ✋ | Indicates that mishandling may cause injury. |

**The following symbol is used to indicate other precautions to prevent damage or hazard from occurring:**

| 🚫 | Indicates prohibited action. |
|---|---|

## ■ *Handling Precautions*

## ⚠ *WARNING*

### Regarding the Product

Do not disassemble or modify the product which is not described in this manual. Doing so may cause fire, electric shock, or injury.

### Regarding the Power

When you disconnect the cable, be sure to hold the plug and pull. Failure to do so may cause a fire or electric shock due to a damaged cable.

Please place the AC power source near the equipment, check that the AC plug can be inserted and removed easily and then use it.

To inspect or operate on the inside of the equipment, turn off the power and wait for one or two minutes before starting work. High voltage is present in some modules and connectors of this product.

## ⚠ *CAUTION*

### Regarding the Product

Avoid use or storage in the following conditions:
- Extremely high/low temperature
- In direct sunlight for a long time, or near a heater
- High humidity or dusty
- Exposed to water or other liquid
- Strong vibration or shock
- Strong magnetic field or radio waves
- lightning
- In rain without the rain cover

Be sure to hold the plug and pull when you disconnect the cable.
Condensation that cause malfunction may occur in the equipment.

Avoid moving the equipment suddenly from an extremely cold place to a warm place.
Condensation may occur in the Charged Couple Device (CCD) or other parts.

Do not drop or insert a metal object such as a pin or a foreign object into the equipment.

Do not spread or spill water or other liquid on the equipment.

Do not subject the equipment to a strong shock or vibration.
Doing so may cause damage or malfunction of the equipment.
Excessive sound pressure from the headset may cause a hearing loss.

| **Regarding the Modules** |
|---|

⚠ Pay attention to the following points when handling the modules:
- Do not let the parts of the modules or the printed wiring pattern to touch the metal parts that can be energized.
- Avoid placing or storing the modules in humid places.
- Do not touch the parts of the modules or the printed wiring pattern with dirty or wet hands. Do not touch them with hands unless necessary.

| **Regarding the Power and the Lithium Battery** |
|---|

⚡ Use the product in compliance with the rating of the fuse. Otherwise, a fault can occur.

..................................................

🔥 ✋ Do not use an unspecified battery.
Wrong usage of batteries may cause liquid leak, explosion, and heat, and at worst injury or fire.
When changing or discarding a battery, please contact Ikegami's sales and service centers.

## ■ *Maintenance*

| **Regarding the product** |
|---|

⚠ Before performing maintenance on the product, be sure to turn off the power for safety and for protection against malfunction.

Clean the product using a dry and soft cloth.

If the product is very dirty, wipe with a cloth moistened with water or neutral detergent and wrung out. If neutral detergent is used, wipe again with a cloth dipped in clear water and wrung out.

## ■ *Regular Maintenance Recommended*

This product includes parts that wear out and have a limited life even in proper use or storage. Therefore, regular maintenance (once every 3 years or 8000 hours use) is recommended to extend the life and safe use of this product for a long time. Please contact Ikegami's sales and service centers or Techno Ikegami Co., Ltd. for the regular maintenance and repair of our products.

# HOW TO READ THE OPERATION MANUAL

This page explains general notes on reading the DTA-55 Operation Manual, and symbols and notations used in the manual.

## ■ *Notes on the Manual*

- This manual is written for readers with a basic knowledge of handling a broadcast camera, BS, or MCP.
- The contents of this manual are subject to change without notice in the future.

## ■ *Symbols*

The symbols used in this manual are as follows:

| CAUTION: | Things you have to be careful during operation. Be sure to read. |
|---|---|
| Note: | Supplementary information or guidance |
| Reference: | Sections where related information is available |

## ■ *Notations*

The following notations are used in this manual.

| This product, TA | Indicate DTA-55 Triax Adaptor. |
|---|---|
| Camera head | Indicate UnicamHD Series Camera. |

※UnicamHD series camera: HDK-55/HDK-70GX/HDK-97A

## ■ *Illustrations and Displays*

The illustrations and displays in the text are provided for explanation and may be slightly different from the equipment or image.

## ■ *Related Manuals*

Refer to the operation manuals and maintenance manuals accompanying the camera head, BS, and each control panel to be used.

・HDK-55 High definition Camera System Operation Manual
・HDK-79GX High definition Camera System Operation Manual
・HDK-97A 3G High definition Camera System Operation Manual
・BST-55 Base Station Operation Manual
・OCP-200 Operation Control Panl Operation Manual
・MCP-200 Maintenance Control Panel Operation Manual

## ■ *Structure of Operation Manual*

DTA-55 Camera Adaptor Operation Manual is intended to both safety and smoothly operating the DTA-55. The Operation Manual consists of six chapters. By reading it in sequence, you can smoothly perform a series of steps, from connection to operation.

**Chapter 1**

### OUTLINE

Explains the features and the specifications of this product.

**Chapter 2**

### NAME and FUNCTION

Explains the name and function of each part of the DTA-55.

**Chapter 3**

### HDTV FORMATS

Explains the signal formats of the DTA-55.

**Chapter 4**

### INSTRUMENT INSTALLATION

Explains how to combine this product to a camera head.
Also explains how to connect this product to the peripheral equipment.

**Chapter 5**

### SETTINGS and ADJUSTMENT

Explains the menu of a camera head for the settings of this product.

**Chapter 6**

### TROUBLE SHOOTING

Explains how to take measures when a warning appeared on the viewfinder.
Also explains the exchange method of the fuse.

### CHANGE INFORMATION

This manual is written the standard specifications. Your custom specifications and revision information are entered in "CHANGE INFORMATION". Read by the comparing with the main text of the maintenance manual.
("CHANGE INFORMATION" may be sent to you later on.)

# DTA-55
## Triax Adaptor

# OPERATION MANUAL

## Chapter 1 OUTLINE

## Chapter 2 NAME and FUNCTION

## Chapter 3 HDTV FORMATS

## Chapter 4 INSTRUMENT INSTALLATION

# Chapter 5 SETTINGS and ADJUSTMENT

# Chapter 6 TROUBLE SHOOTING

# OUTLINE

**1**

DTA-55/BST-55 is HDTV triax cable extension system that delivers long transmission, without compromising high picture quality captured by a camera.
DTA-55/BST-55 is able to use with a latest camera HDK-55, HDK-79GX and HDK-97A.
The distance which can be transmitted is 800m. (8.8mm in diameter, Fujikura)

※The maximum transmission distance varies according to the type of lens, system structure, and kind of Triax cable.

## 1. 1  Features of This Product

### ■DTA-55 can combine with Unicam HD series camera directly.

DTA-55 is direct connectable Triax adaptor with the camera head of Unicam HD series.
HDK-55, HDK-79GX and HDK-97A camera head can be used.

### ■TRIAX transmission.

The camera cable is TRIAX cable. Since operation of a camera is possible immediately even if it does not newly equip a fiber cable, this is suitable for an upgrade path from SDTV systems where the TRIAX cable is already equipped, such as a sports stadium.

### ■The dimensions are the same with FA-97 fiber adaptor.

DTA-55 uses the same body as FA-97 fiber camera adaptor. Accessories, such as large viewfinder is common with FA-97 fiber adaptor.

### ■High quality RET signal and Q-TV signal output.

RET signal is 4:2:2 HD-SDI, and Q-TV signal is 4:2:2 SD-SDI. Since all the transmission processes are operating by 4:2:2, it outputs picture more quality than the signal on which the sampling rate of a color was reduced.

# １．２ Specifications

## ■Rating

| | |
|---|---|
| External DC | DC11V to 16V |
| Input voltage | XLR type 4pin connector |
| External Dimensions | W141×H228×D196mm （not including projections) |
| Mass | Approx. 3kg |
| Temperature | Operating temperature　-20℃ to +45℃ |
| | Storage temperature　　-30℃ to +60℃ |
| Humidity | 30% to 90%　(No condensation) |
| Applied Standard | EN60950-1 |
| Quality control | ISO9001 |
| Usage condition | Within the practical life zone (Excluding places where an electric field or a magnetic field is too strong.) |

## ■Input Signals

| Microphone<br>MIC-1/MIC-2 | -60dBs to -40dBs w/wo +48V Phantom Power<br>-20dBs w/wo +12V AB power XLR type 3pin connector 2channels |
|---|---|
| Intercom<br>Microphone<br>HDST-1/HDST-2 | -60dBs (Dynamic microphone)<br>-14dBs w/wo +9V power (carbon microphone) XLR type connector 2channels |
| Data trunk signal | RS-422 1channel |

## ■Output Signals

| Return signal | HD-SDI | 1channel | BNC type connector ※1 |
|---|---|---|---|
| MON signal | HD-SDI | 1channel | BNC type connector |
| Q-TV signal | SD-SDI | 1channel | BNC type connector |
| Camera video signal | HD-SDI | 1channel | BNC type connector ※1 |
| Data trunk signal | RS-422 | 1channel | |
| Intercom signal | 0dBs | 2channels | HDST-1/HDST-2 connector |
| Program<br>sound signal | 0dBs | 2channels | HDST-1/HDST-2 connector |
| DC power output | 12V 0.5A | | DC OUT connector |

※1 It changes to a RET signal at the time of BS operation, and changes to a camera video signal at the time of a stand-alone.
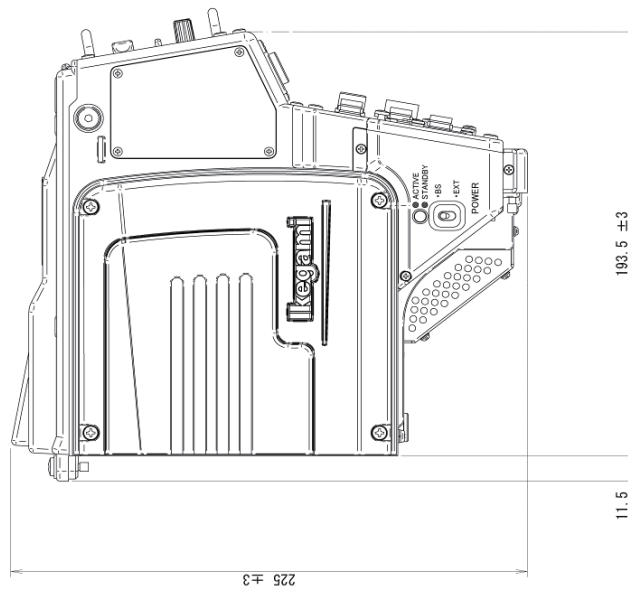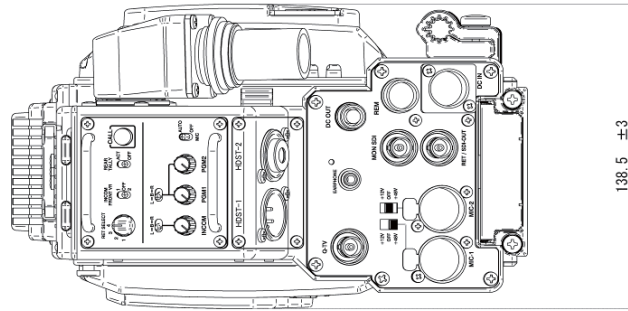
## ■Camera Cable

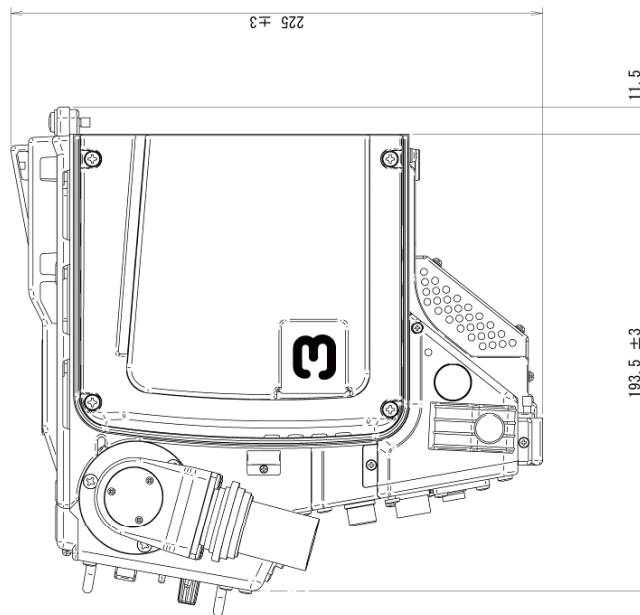| Standard cable | 8.8mm in diameter, Fujikura TRIAX cable |
|---|---|

## ■Maximum Transmission Distance

| Maximum transmission distance | 800m (Standard cable) |
|---|---|

# ■Right & Rear View
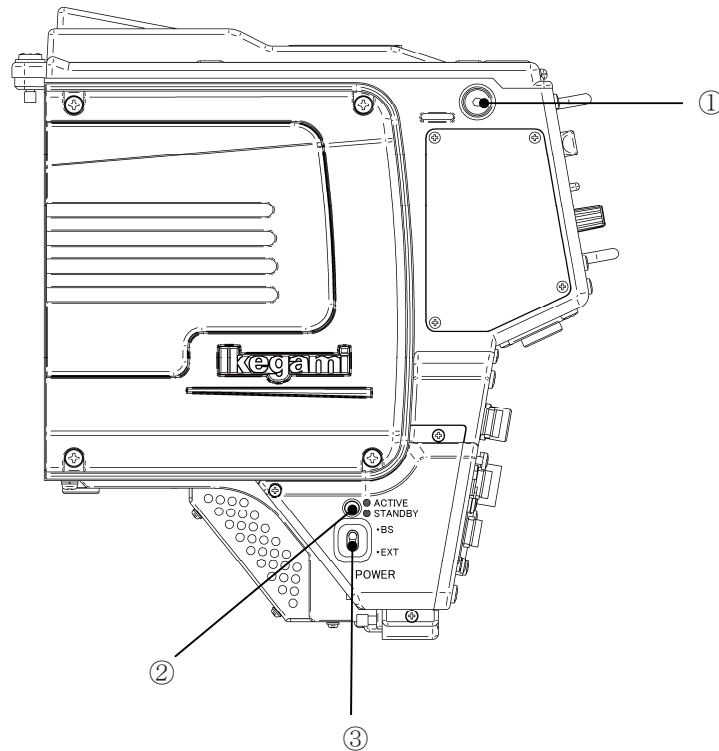
# ■Left & Front View



138.5 ±3

225 ±3

11.5

193.5 ±3

# NAME & FUNCTION

**2**
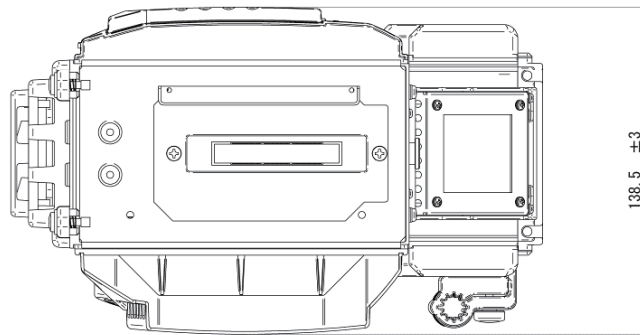
## DTA-55 Right View



① **Shoulder belt hook**

The hook for the shoulder belt.
The shoulder belt is an option.

② **Power mode indicator**

The state of the power supply of DTA-55 is displayed.
Green: Indicates power is ON. DTA-55 is active.
Red    : Indicate power is standby.

③ **Power source switch**

The switch to select the power source to DTA-55.
BS    : A power supply is supplied through a Triax cable from BST-55.
EXT: A power supply is supplied through DTA-55 DC IN connector.

| Power source | Power source switch | Indicator | DTA-55 state | Power state |
|---|---|---|---|---|
| BST-55 | BS | Green | ON (Active) | A power supply is supplied through a Triax cable from BST-55. |
| | EXT | Red | Standby | A standby power supply is supplied through a Triax cable from BST-55. |
| EXT | BS | Extinguished | OFF | OFF |
| | EXT | Green | ON (Active) | A power supply is supplied through DTA-55 DC IN connector. |

## DTA-55 Rear View
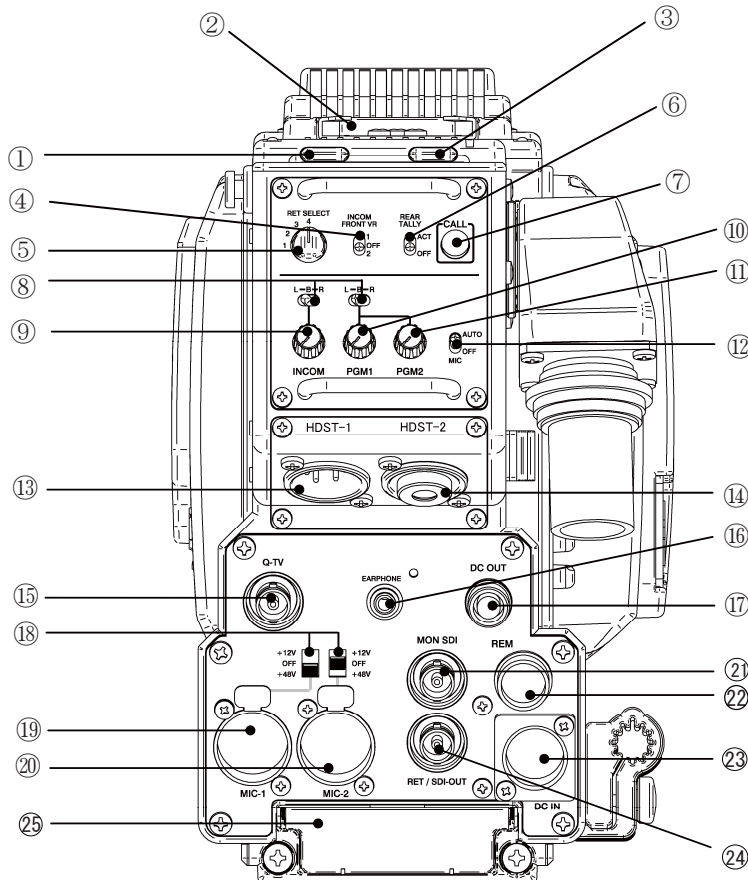


① **Green Tally indicator**

When Green Tally is asserted, this indicator is illuminated.

② **Accessory shoe**

Accessories, such as 9 inches Viewfinder, are attached.

③ **Red Tally indicator**

When Red Tally is asserted, this indicator is illuminated.
It also lights up while the CALL button on any control panel is pressed.

④ **Incom front VR select switch**

The volume control of the selected intercom is moved to the camera.

1: Intercom channel 1 and PGM-1 volume controls are moved to the camera head.
   Intercom channel 2 and PGM-2 volume control remains.

OFF: DTA-55 Intercom volume control knob is enabled for intercom channel 1 & 2.

2: Intercom channel 2 and PGM-2 volume controls are moved to the camera head.
   Intercom channel 1 and PGM-1 volume control remains.

⑤ **RET select switch**

Selects one channel to assign as RET-1 from four return video channels.

⑥ **Rear Tally switch**

Selects not to turn on Red and Green Tally indicators.

Act: Activates lighting function of Red and Green Tally indicators.

OFF: disables lighting function of Red and Green Tally indicators.

⑦ **Call button**

Calls an operator.
When this button is pressed, the Red Tally indicators on BST-55 and control panel light and a buzzer sounds.

⑧ **Listen select switch**

Selects the output channel for the headset (INC1, INC2, PGM1, and PGM2).
   L (Left): Activates the left channel of the headset.
   B (both) : Activates the left and right channels of the headset.
   R (Right): Activates the right channel of the headset.

⑨ **Intercom volume control knob**

Controls the volume of INC-1 and INC-2 for headsets.

⑩ **PGM-1 volume control knob**

Controls the volume of PGM-1 for headsets.

⑪ **PGM-2 volume control knob**

Controls the volume of PGM-2 for headsets.

⑫ **Incom microphone switch**

Controls the intercom microphone of INC-1 and INC-2.

Auto: Detection of sound, such as voice, turns ON a microphone circuit automatically.

OFF: The microphone circuit turns OFF.

⑬ **Headset-1 connector**

Connects the headset-1.

⑭ **Headset-2 connector**

Connects the headset-2.

⑮ **Q-TV connector**

Outputs the Q-TV (4:2:2 SD-SDI) signal that is sent from BST-55.
Ex: Connects a prompter system.

⑯ **Earphone jack**

Outputs the audio which mixed PGM-1 and PGM-2. (mini-jack)
Ex: Connects earphone or wireless equipment for a reporter.

⑰ **DC out connector**

DC12V (max. 0.5A) outputs for various use.

⑱ **Microphone power select switch**

Selects the type of power supply of the microphones.
The settings depend on the type of microphones.

+12V: Supplies +12V AB power.

OFF: Supplies no power.
Applicable for a dynamic microphone or a microphone with built-in battery which requires no power supply.

+48V: Supplies +48V Phantom power.

⑲ **Microphone-1 connector**

Connects a microphone for MIC-1.

⑳ **Microphone-2 connector**

 Connects a microphone for MIC-2.

㉑ **MON SDI connector**

 Outputs the camera head monitor signal. (HD-SDI)
 The kind of the monitor signal can be selected by camera head menu.

㉒ **Remote connector**

 Connects a remote control panel, when the camera is operated without BST-55.

㉓ **DC IN connector**

 Inputs external power supply (+12V DC), when the camera is operated without BST-55.

㉔ **RET/SDI out connector**

 Outputs the return video signal, when the camera is operated together with BST-55.
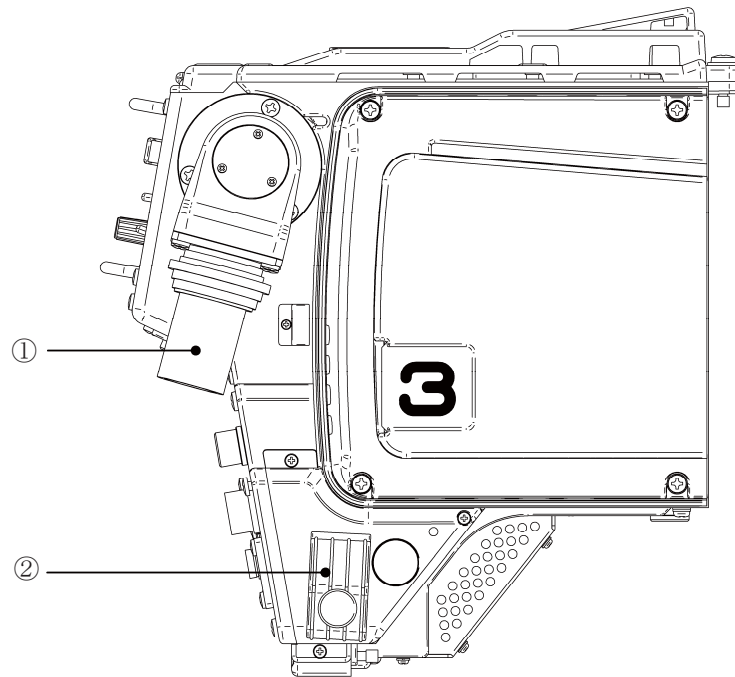 Outputs the camera video signal, when the camera is operated without BST-55.

㉕ **Rear flap panel**

 The cover of the inside connector.
 However, the system expansion connector is not installed in standard specification.
 It is order option. (built-in at our factory.)

## DTA-55 Left View

① Camera connector

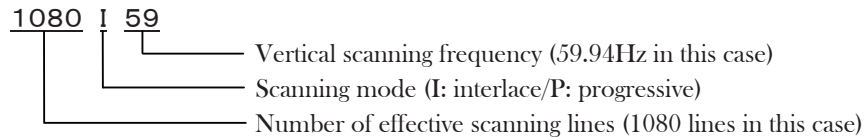  Connects here a Triax cable.

② Triax cable clamp

  The cable clamp for protection of the Triax cable.

# HDTV FORMATS

3

# 3. 1　HDTV formats

This section explains the HDTV formats displayed on the menu and the self-diagnosis.

1080 I 59
　　　　　　　　　　Vertical scanning frequency (59.94Hz in this case)
　　　　　　　　　　Scanning mode (I: interlace/P: progressive)
　　　　　　　　　　Number of effective scanning lines (1080 lines in this case)

DTA-55 is supporting the following formats.

```
1080 I 59
1080 I 50
720P59
720P50
```

# INSTRUMENT INSTALLATION

**4**

# ４．１ Preparation

## Handling of instruments

Please read **THE SAFETY PRECAUTIONS** in the beginning of this document and follow the precautions for use.

## Combine DTA-55 with a camera head

Combine **DTA**-55 with a camera head.

Slide **DTA**-55 toward the camera head from back of the camera head to connect the connectors on each other.
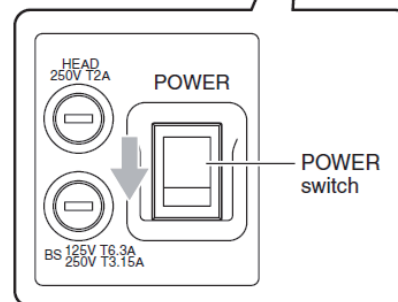Tighten upper setscrews and lower setscrews alternately.



Upper setscrew (Two screws)

DTA-55 Rear View

UnicamHD series camera head          DTA-55

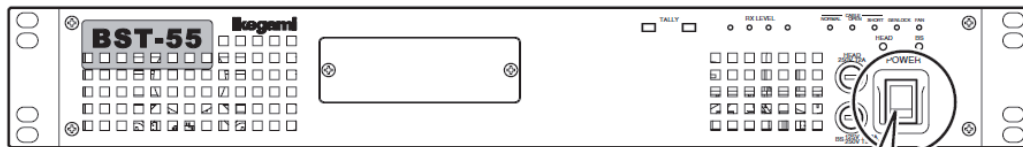Lower setscrew (Two screws)
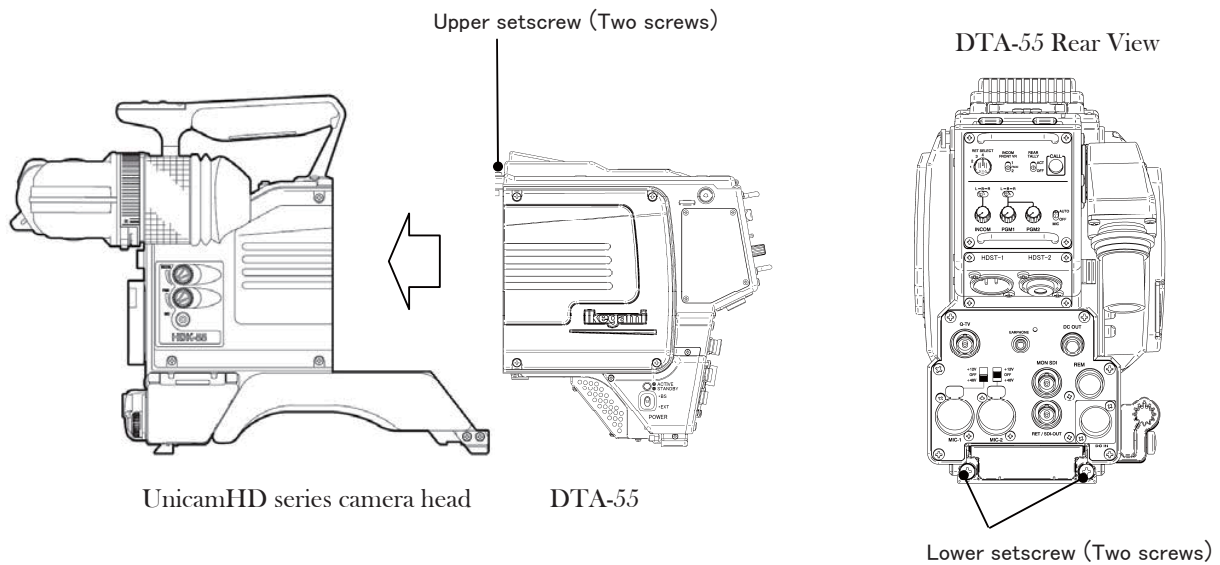
⚠ **CAUTION**    Before this procedure, attach and stabilize the camera head to a tripod.
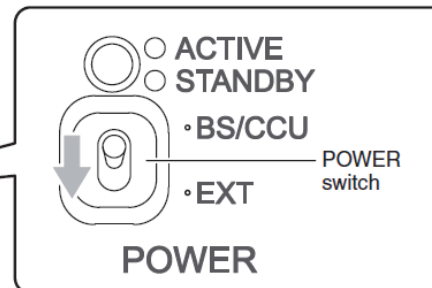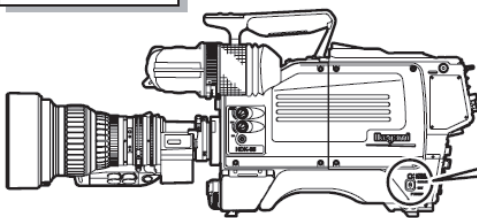The camera head may fall down and you may be injured if you work without a tripod.

## Make sure the Power Switch is OFF

Please make sure that the power switch is "OFF" before connecting this product and peripheral equipment such as the Base station.



**BS front view**

**Camera right view**

## 4. 2 Connection to a power supply

**1** Make sure the POWER switch of the BS is "OFF."

**2** Connect the AC cable to the AC INPUT connector on the rear of the BS.

**3** Insert the AC plug into the power outlet.

**4** Connect a camera cable to the CAMERA connector on the rear of the BS, and connect the other end of the camera cable to the camera head.

Refer to "4.3 BS and Camera Head (DTA-55) Connection" (page 29) for how to connect the camera cable to the camera head.

BS rear view

AC INPUT connector

AC cable

Camera cable

Power outlet

To the camera

This completes the connection procedure for supplying power from the BST-55 to the camera.

**CAUTION:**

Please place the AC power source near BS, check that the AC plug can be inserted and removed easily and then use it. When any abnormalities arise in BS, disconnect the AC plug immediately.

Connect the CAMERA connector on the rear of the BS to the CAMERA connector on the DTA-55 via a camera cable.

## 4. 3 BS and camera connection

Camera head

CAMERA connector

CAMERA connector

Camera cable

BST-55 rear view
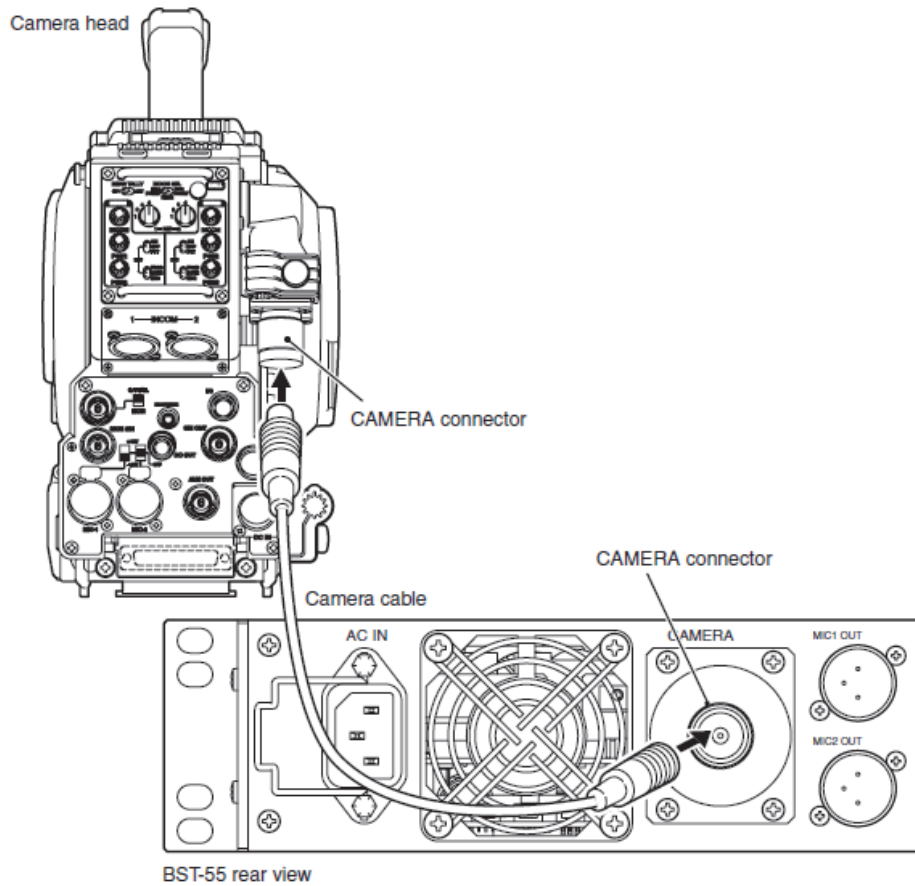
**CAUTION:**
- The camera cable has a plug on one end and a jack on the other end. Make sure the difference before connection.
- Do not forcibly bend the camera cable nor apply excessive force to the camera cable.
- Refer to the instructions accompanying the cable or camera head to be used for how to handle the camera cable.

## 4. 4 BS and OCP connection

Connect the OCP/CCP connector on the rear of the BS and the COMM connector of the OCP with a CP cable.



OCP

BS rear view

COMM connector

CP cable: Max. 300m *
* When the OCP-200 is used, the maximum CP cable length is 80m.

■ Power ON BST-55.

Set the BS POWER switch on the front of BST-55 to "ON".

BST-55 is started, and lights the BS MAIN POWER indicator. The power supply of BST-55 is turned on and lights the BS MAIN POWER indicator. In addition, the condition of the camera cable between DTA-55 and BST-55 is automatically checked. When the cable condition is detected as normal, the NORMAL indicator is illuminate.

**BS front view**
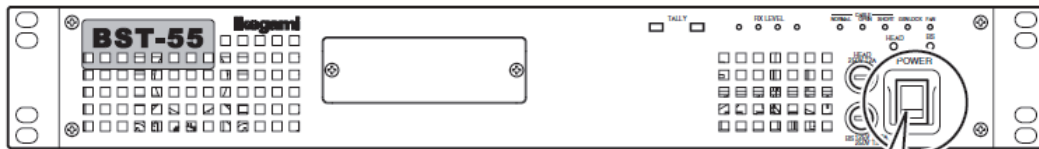
**CAUTION:**

To turn on Power switch just after the switch is turned off, wait two or more seconds before you turn on the power. Repeating the on/off operation within one second activates the protector.

When the protector is activated, turn on the Power switch after five or more seconds later.
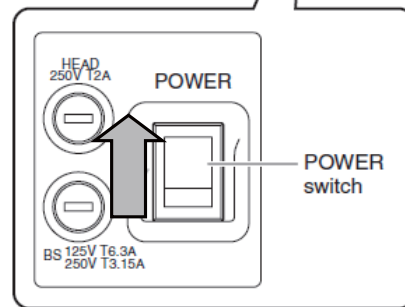
■ Power ON DTA-55 and the camera head.
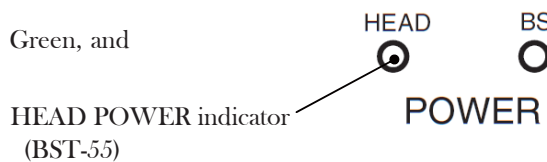
Set the Power source switch to "BS".
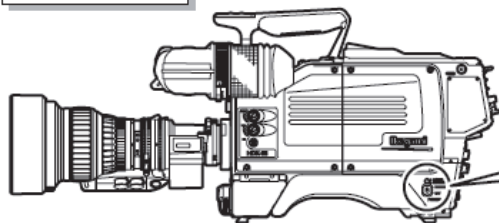
POWER mode indicator
(DTA-55)

**Camera right view**
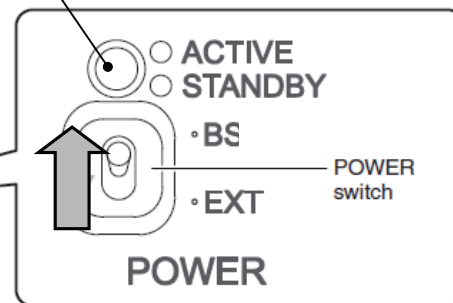
When the cable condition is normal, "HEAD POWER" indicator will be illuminated, and BST-55 will supply electric power to DTA-55.

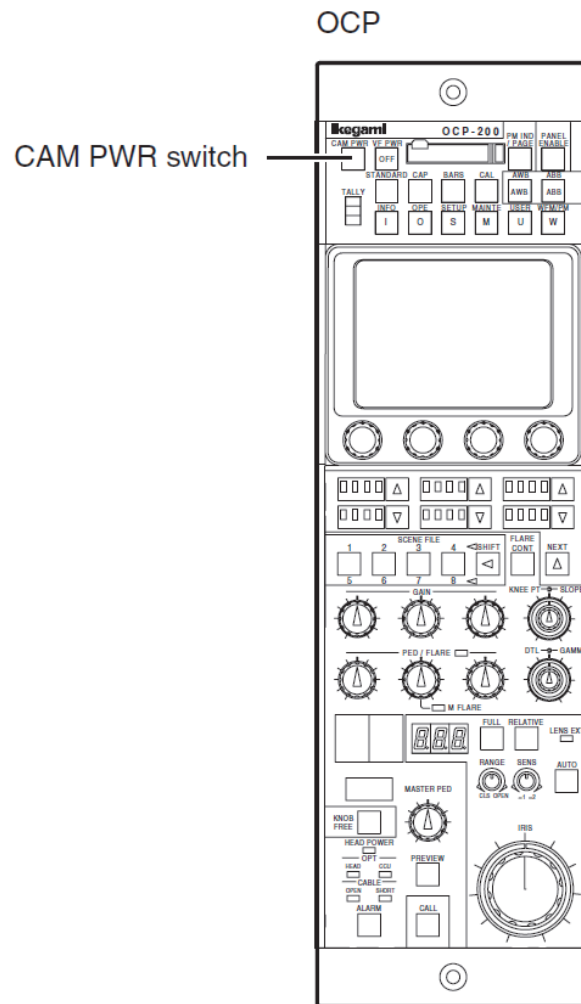The Power mode indicator changes the color Red to Green, and DTA-55 will become active.

HEAD POWER indicator
(BST-55)

■ You can control the power of the camera head using the OCP.

**1**    Set the BS MAIN POWER switch on the front of the BS to "ON."

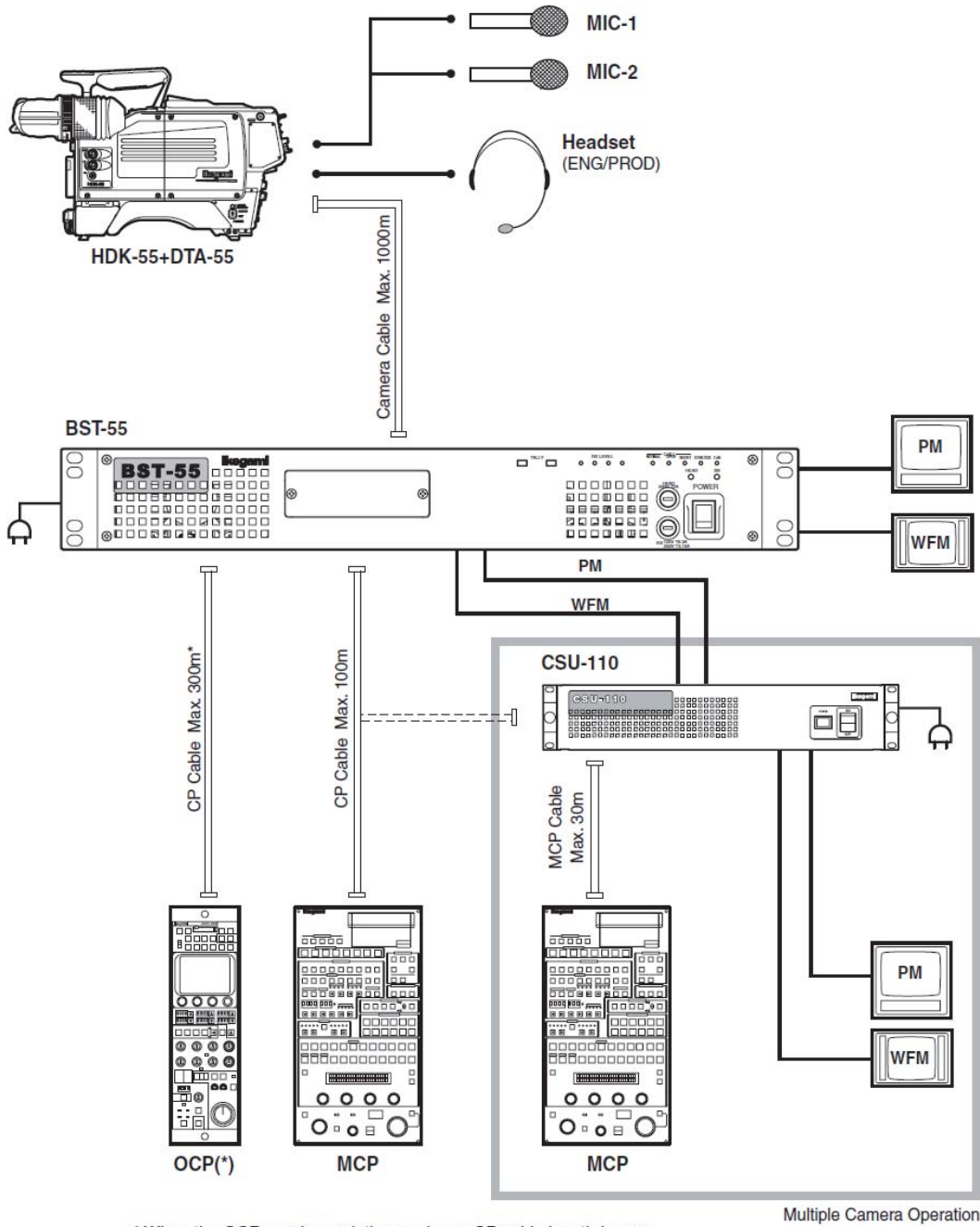**2**    Set the CAM POWER switch on the OCP to "ON."
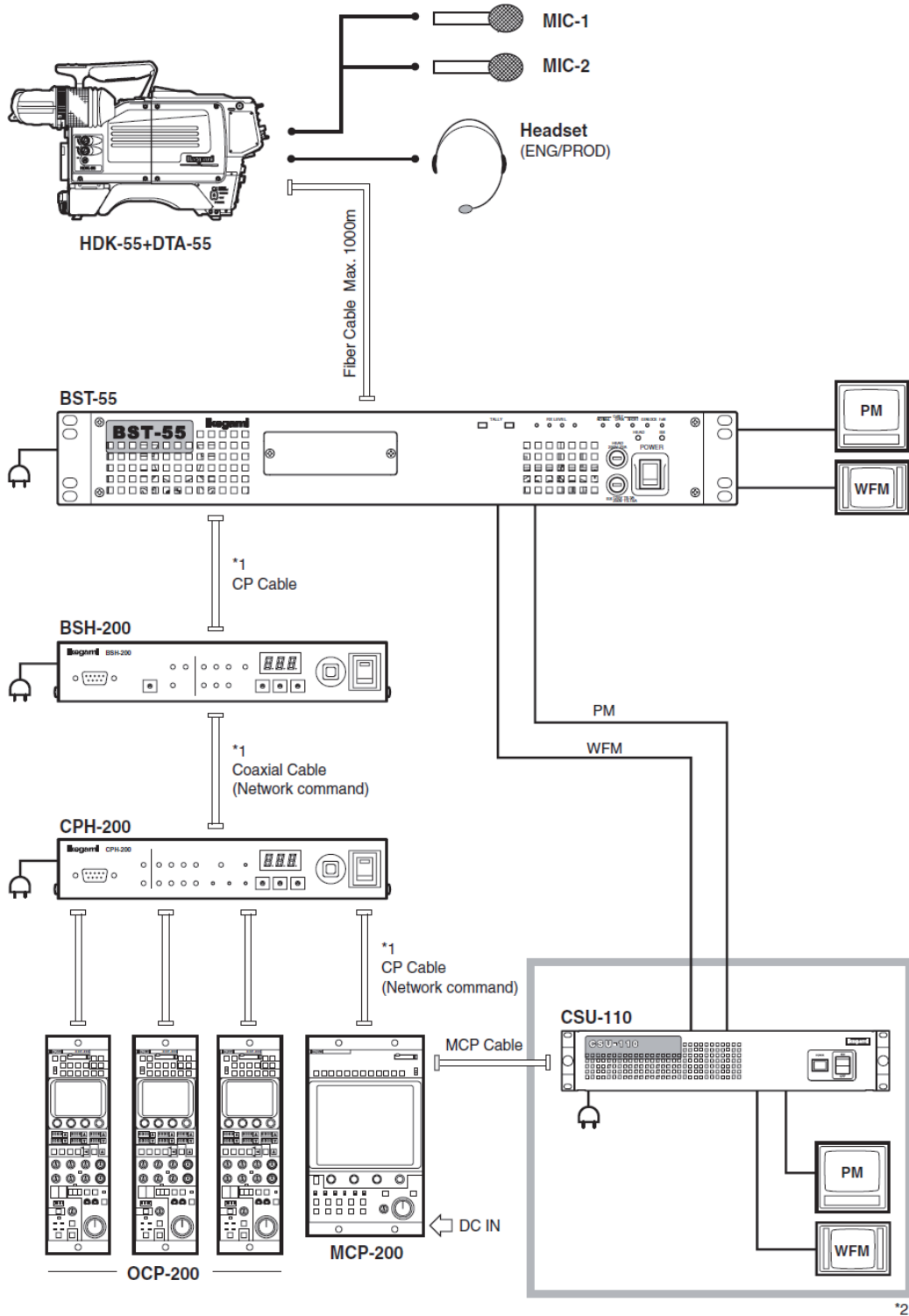
Power is supplied to the camera head.

OCP

CAM PWR switch

**Note:**   This power control is only the camera head.
The power supply of BST-55 is still "ON".

# 4. 7 System setup diagram



HDK-55+DTA-55

MIC-1

MIC-2

Headset (ENG/PROD)

Camera Cable Max. 1000m

BST-55

PM

WFM

PM

WFM

CP Cable Max. 300m*

CP Cable Max. 100m

CSU-110

MCP Cable Max. 30m

PM

WFM

OCP(*)

MCP

MCP

Multiple Camera Operation

* When the OCP-200 is used, the maximum CP cable length is 80m.

## ■ Network Operation



*1 For the maximum and minimum extension length of the cables, refer to "BSH-200/CPH-200 setup Manual".

*2 For network operation, commands can be selected from an OCP or MCP. For video signals, the operating configuration to select the signals from the CSU-110 is also accepted.
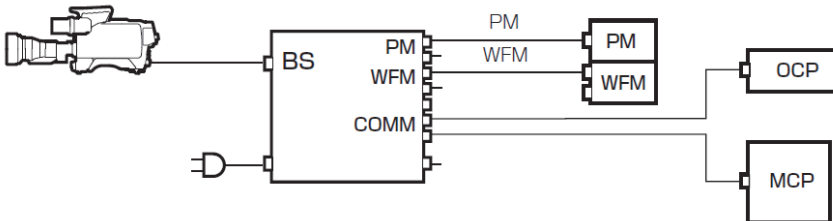
However, an external power supply (DC voltage) is required when the MCP-200 is used and the extension length of the cables is long.
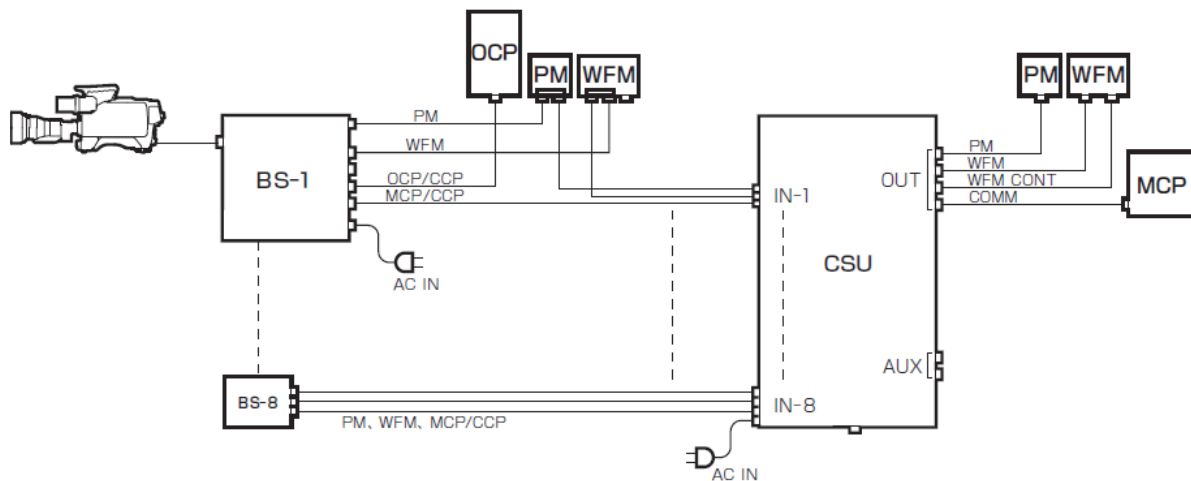
# 4. 8 Operating systems

■ Stand alone （1 camera head）
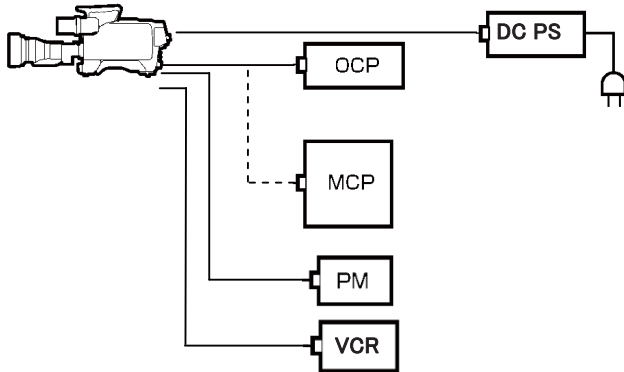


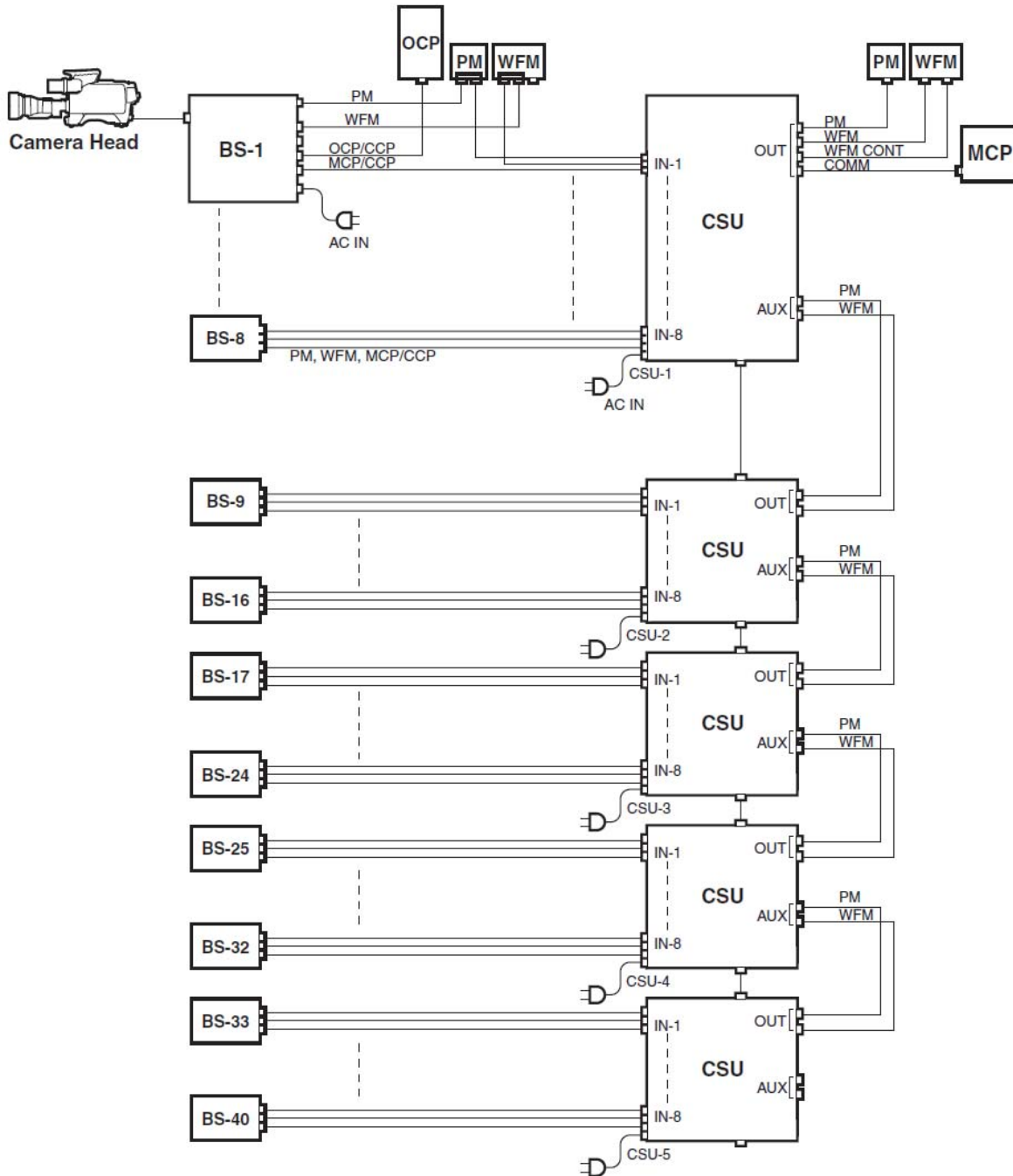■ Example of standard configuration（1 camera head）



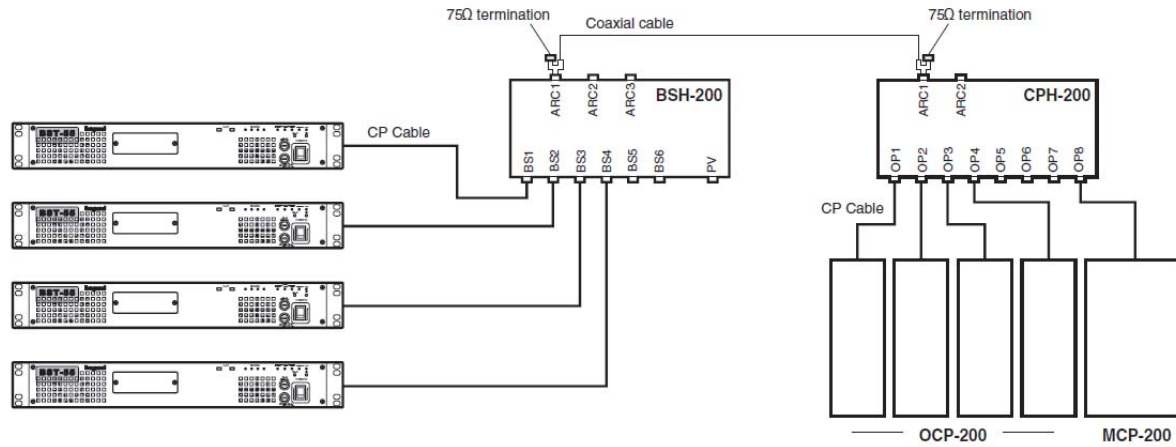■ Example of configuration up to 8 camera heads

## ■ Example of configuration up to 40 camera heads

The number of camera head to be selected varies according to the MCP to be used.

## ■ Network connection (Basic connection)

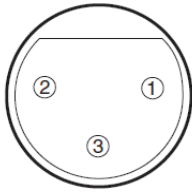This connection configuration is available for the BST-55.

# 4. 9 External connections

## ■ CAMERA connector

Used to connect DTA-55 to BST-55 by Triax cable.
A customer can specift the maker of CAMERA connector.

## ■ Microphone－1・Microphone－2 connector

Receptacle

DTA-55： HA16PRM-3SE or equivalent

Cable ： XLR-3-12C（3pin male plug）or equivalent

Insertion side

| Pin | Name | Function | I/O | External interface |
|---|---|---|---|---|
| ① | MIC（SHIELD） | Shielding for MIC input | － | |
| ② | MIC（HOT） | MIC（HOT）line<br>Balanced input　600 ohm<br>AB powering supplied　　　　　:DC12V<br>+48V Phantom power supplied :DC48V | IN | |
| ③ | MIC（COLD） | MIC（COLD）line<br>Balanced input 600 ohm<br>AB powering supplied　　　　　:DC0V<br>+48V Phantom power supplied :DC48V | IN | |

## ■ DC IN connector
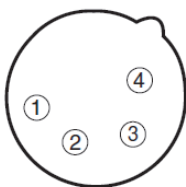
Receptacle

DTA-55： HA16RA-4P or equivalent

Cable ： XLR-4-11C（4pin female plug）or equivalent

Insertion side

| Pin | Name | Function | I/O | External interface |
|---|---|---|---|---|
| ① | +12V RET | +12V input RET | IN | |
| ② | NC | ———————— | － | |
| ③ | NC | ———————— | － | |
| ④ | +12V | +12V input（DC11V to 16V） | IN | |

## ■ DC OUT connector

Receptacle
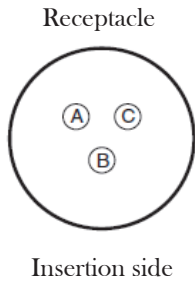
The maximum current is 0.5A.

DTA-*55* : PRC05-R3F

Cable : PRC05-J3M (3pin male plug)

Insertion side

| Pin | Name | Function | I/O | External interface |
|-----|------|----------|-----|--------------------|
| Ⓐ | +12V | +12V output | OUT | |
| Ⓑ | +12V RET | +12V output RET | RET | |
| Ⓒ | NC | ——————— | – | |

## ■ REMOTE connector

Receptacle
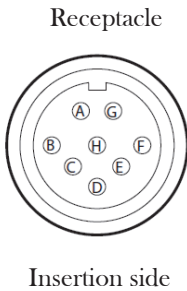
DTA-*55*: PRC05-R8F

Cable : PRC05-PB8M (8pin male plug)

Insertion side

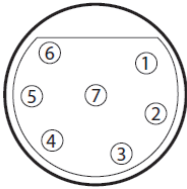| Pin | Name | function | I/O | External interface |
|-----|------|----------|-----|--------------------|
| Ⓐ | HED (+) | Data out for camera control (+) | OUT | |
| Ⓑ | HED (−) | Data out for camera control (−) | OUT | |
| Ⓒ | HEC (+) | Data input for camera control (+) | IN | |
| Ⓓ | HEC (−) | Data input for camera control (−) | IN | |
| Ⓔ | +12V (REM) | DC+12V output for a control panels | OUT | |
| Ⓕ | +12V RET (REM) | DC+12V output RET | RET | |
| Ⓖ | NC | ——————— | – | |
| Ⓗ | NC | ——————— | – | |

## ■ HDST-1・HDST-2 connector

The connector type is different according to the intercom headset.
The carbon or dynamic intercom microphone can be used.
The switching of carbon and dynamic microphone is able to control from a camera head.

[7pin type]
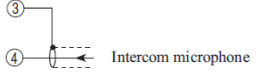
Receptacle



DTA-55:　　　NC7FD-LX　or equivalent

Cable　　:　　XLR-7-12C (7pin male plug)　or equivalent

Insertion side

| Pin | Name | Function | | I/O | External interface |
|---|---|---|---|---|---|
| ① | LISTEN L (C) | Shield for L channel output (H) | ① | RET | |
| ② | LISTEN L (H) | L channel output (H) | | OUT | Receiver L |
| ③ | TALK (C) | Shield for headset microphone input (H) | ③ | RET | |
| ④ | TALK (H) | Headset microphone input (H) | | IN | Intercom microphone |
| ⑤ | COMMON | COMMON GND | ⑤ | GND | |
| ⑥ | LISTEN R (H) | R channel output　(H) | | OUT | Receiver R |
| ⑦ | LISTEN R (C) | Shield for headset microphone input (H) | ⑦ | RET | |

[5pin type]

Receptacle



Insertion side

DTA-55:     NC5FD-L-1   or equivalent

Cable   :     XLR-5-12C (5pin male plug)   or equivalent

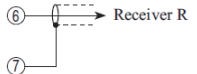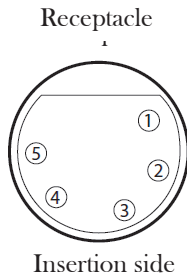| Pin | Name | Function | I/O | External interface |
|---|---|---|---|---|
| ① | TALK (C) | Shield for headset microphone input (H) | GND | ① |
| ② | TALK (H) | Headset microphone input (H) | IN | ② ← Intercom microphone |
| ③ | SHIELD | Shield for headset | GND | ③ |
| ④ | LISTEN L (H) | L channel output (H) | OUT | ④ → Receiver |
| ⑤ | PGM R (H) | R channel output (H) (PGM) | OUT | ⑤ → Receiver |

[4pin type]

Receptacle



Insertion side
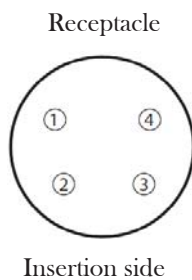
DTA-55:     NC4MD-L-1   or equivalent

Cable   :     XLR-4-11C (4pin female plug)   or equivalent

| Pin | Name | Function | I/O | External interface |
|---|---|---|---|---|
| ① | TALK (C) | Shield for headset microphone input (H) | GND | ① |
| ② | TALK (H) | Headset microphone input (H) | IN | ② ← Intercom microphone |
| ③ | SHIELD | Shield for headset | GND | ③ |
| ④ | LISTEN L (H) | L channel output (H) | OUT | ④ → Receiver |

# SETTINGS and ADJUSTMENT

**5**

## Setup before using

There is an item which should be set up before using when DTA-55 is combined to a camera for the first time.
Also, this should be set up when DTA-55 is combined to a different camera.
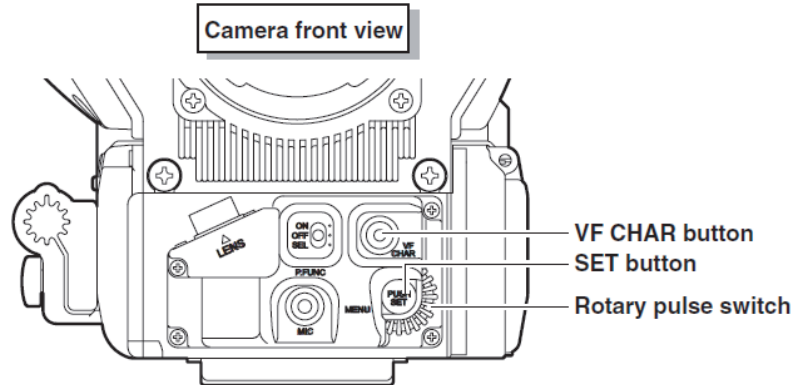
This setup uses the menu of the camera.
The menu operation is explained in next page. (Ex: HDK-55 camera head.)

## Basic operation of the Menu

The menu function can set up the items to display in the viewfinder and other various status of the camera.
And the setup contents are stored in the camera head.



Camera front view

VF CHAR button
SET button
Rotary pulse switch

**Rotary pulse switch** : Used to select a setting item.
**SET button**          : Pressed to confirm the selection and setting.
**VF CHAR button**      : Used with the SET button to switch to the menu mode and display the menu.

■ **Displaying the Simple menu**

**1**   Press the SET button while holding down the VF
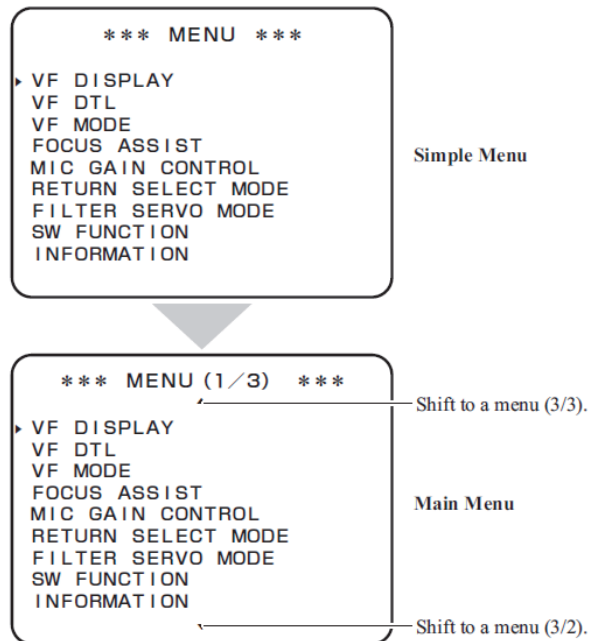        CHAR button on the front of the camera.

        The main menu appears in the viewfinder and monitor.

```
      *** MENU ***

▸VF DISPLAY
 VF DTL
 VF MODE
 FOCUS ASSIST
 MIC GAIN CONTROL
 RETURN SELECT MODE
 FILTER SERVO MODE
 SW FUNCTION
 INFORMATION
```
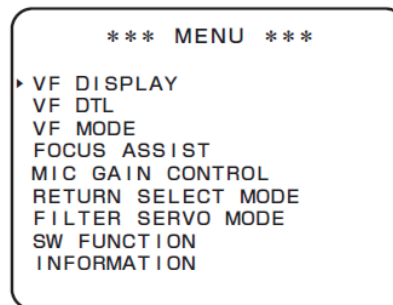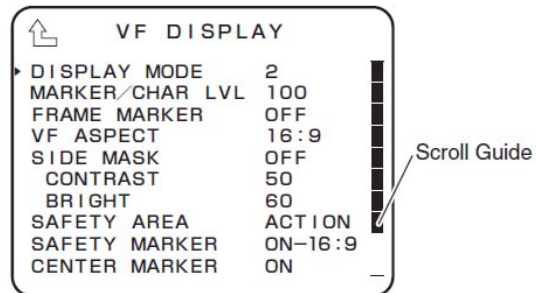
## ■ Displaying the Main menu

**1** Keep pressing the SET button while holding down the VF CHARA button on the front of the camera.

The simple menu appears in the viewfinder and monitor first, and then the screen switches to the main menu.
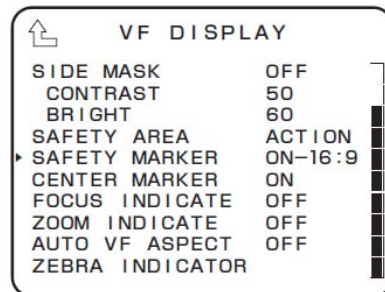
```
        *** MENU ***
▸ VF DISPLAY
  VF DTL
  VF MODE                      Simple Menu
  FOCUS ASSIST
  MIC GAIN CONTROL
  RETURN SELECT MODE
  FILTER SERVO MODE
  SW FUNCTION
  INFORMATION
```

```
      *** MENU (1/3) ***        ──── Shift to a menu (3/3).
▸ VF DISPLAY
  VF DTL
  VF MODE
  FOCUS ASSIST                 Main Menu
  MIC GAIN CONTROL
  RETURN SELECT MODE
  FILTER SERVO MODE
  SW FUNCTION
  INFORMATION                  ──── Shift to a menu (3/2).
```

## ■ Displaying the Submenu

**1** Make sure that the main menu is displayed.

```
⌂        VF DISPLAY
▸ DISPLAY MODE      2
  MARKER/CHAR LVL  100
  FRAME MARKER     OFF
  VF ASPECT        16:9
  SIDE MASK        OFF          Scroll Guide
   CONTRAST         50
   BRIGHT           60
  SAFETY AREA      ACTION
  SAFETY MARKER    ON-16:9
  CENTER MARKER    ON
```

**2** Turn the rotary pulse switch on the front of the camera to position the cursor on the setting item, and press the SET button.

The submenu appears, on which you can perform various settings.

```
⌂        VF DISPLAY
  SIDE MASK        OFF
   CONTRAST         50
   BRIGHT           60
  SAFETY AREA      ACTION
▸ SAFETY MARKER    ON-16:9
  CENTER MARKER    ON
  FOCUS INDICATE   OFF
  ZOOM INDICATE    OFF
  AUTO VF ASPECT   OFF
  ZEBRA INDICATOR
```

*CAUTION:*
If the SET button is not pressed after selecting a value in the mode selection column, the change may be canceled.

*Note:*
- To return to the main menu, select "⌂" and press the SET button.
- The scroll guide is displayed on the submenu containing multiple items.

## ■ Exiting the Menu

**1**   Press the VF CHAR button on the front of the
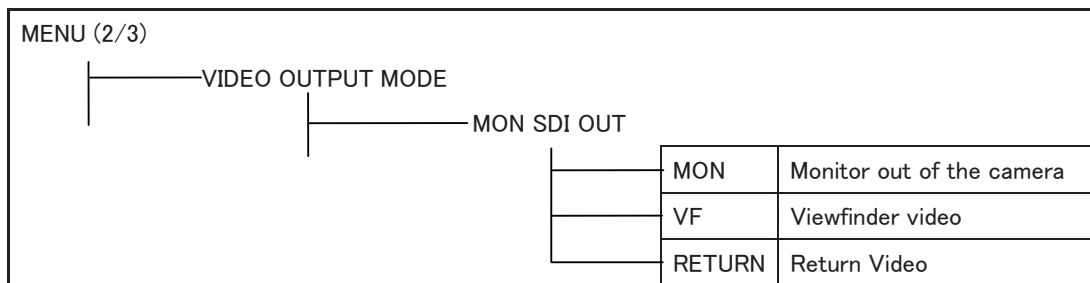camera.

The main menu/submenu disappears.

*Note:*
The menu in SE operation terminates when the MENU switch is turned OFF.

**The setup of the MON SDI output**

## ■ The setup of the MON SDI output

Select the signal for MON SDI output. (MON SDI BNC: on the rear of DTA-55.)

**1** Enter the Main menu (2/3).

**2** Select "VIDEO OUTPUT" and enter the Submenu.

**3** Select "MON SDI OUTPUT" and choose from items.

```
MENU (2/3)
             ┌──────VIDEO OUTPUT MODE
             │              ┌──────MON SDI OUT
             │              │            ┌────────┬─────────────────────────┐
             │              │            │ MON    │ Monitor out of the camera│
             │              │            ├────────┼─────────────────────────┤
             │              │            │ VF     │ Viewfinder video        │
             │              │            ├────────┼─────────────────────────┤
             │              │            │ RETURN │ Return Video            │
             │              │            └────────┴─────────────────────────┘
```

\*Initial value is "VF".    (HDK-55)

**4** Exit from the Menu.

# TROUBLE SHOOTING

**6**

## "TEMP!!" or "FAN!!" appears on the viewfinder screen

### ■ "TEMP!!" appears on the viewfinder screen

When the temperature inside the camera or adaptor increases abnormally, a warning indicating an abnormal temperature rise flashes on the viewfinder screen.
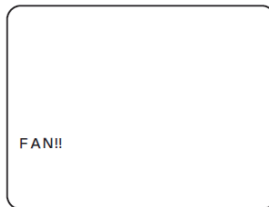
TEMP!!

When this warning is displayed, take the measures which lower the internal temperature of a camera promptly.

| Status | Expected cause | The example of a measure |
|---|---|---|
| TEMP!! flashing | The camera is exposed to direct sunlight for many hours. | Put a sunshade cover on the camera to avoid direct sunlight. |
| | The camera is used near some heating appliance. | Move the position of the camera or heating appliance. |

### ■ "FAN!!" appears on the viewfinder screen

If a fan stops due to some failure, a warning indicating an irregular fan stop flashes on the viewfinder screen.

FAN!!

| Status | Expected cause | The example of a measure |
|---|---|---|
| FAN!! flashing | Fan stops. | Check the camera's menu which fan has stopped. |

To prevent temperature increase inside the camera, cooling fans are provided at the top of the camera and adaptor.

Check the camera's menu which fan has stopped.

Main menu(2/3) → FAN CONTROL → HEAD TOP or ADAPTOR (HDK-55)

## Replacing Fuse

If DTA-55 does not turn on even if the peripheral equipments were connected correctly, the fuse may have blown.

If so, replace the fuse in the following procedures.

**Note:** The automotive fuse (ATO fuse) is used for DTA-55.
ATO fuse is classified by colour, and "15A" type is Blue.

**1** Remove all cables linked to the DTA-55 camera adapter, such as the CAMERA cable.
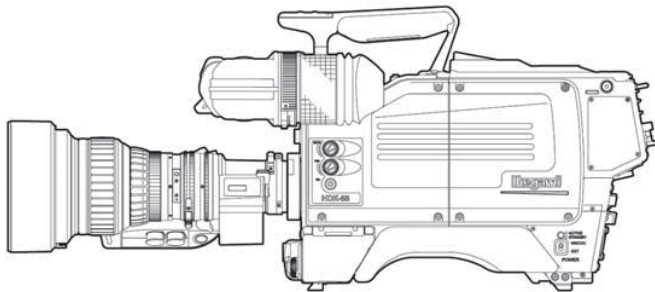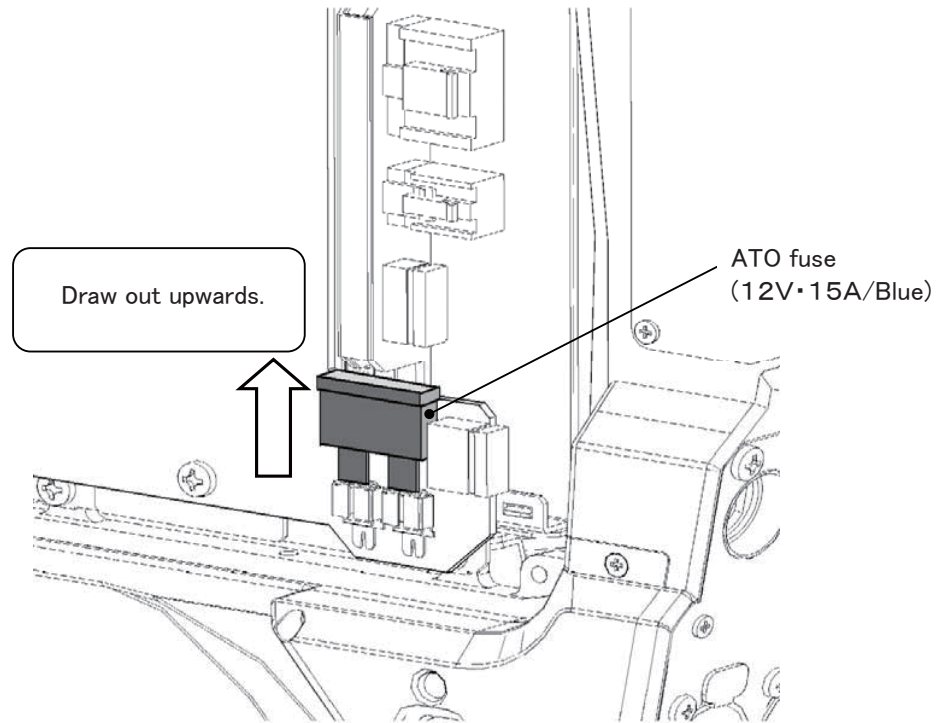
Be sure to remove CAMERA cable.
It is rare possibility but, When BS should have broken, there is fear of an electric shock.

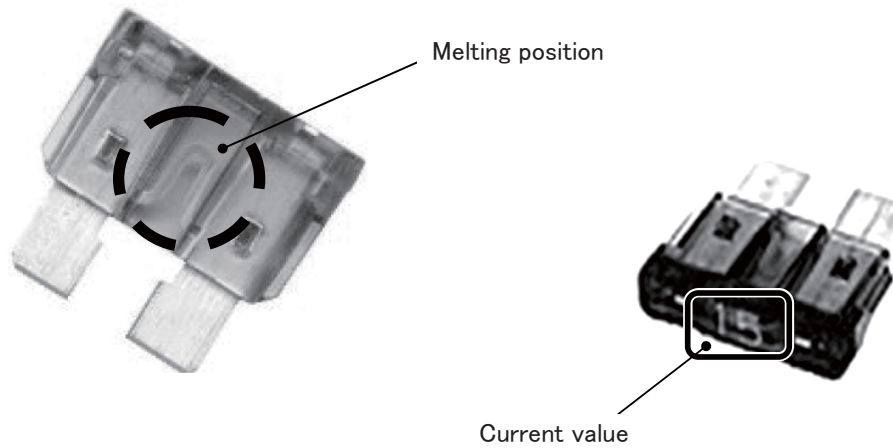**2** Loosen four setscrews on the right side panel of DTA-55 and remove the right side panel.

Setscrews of right side panel
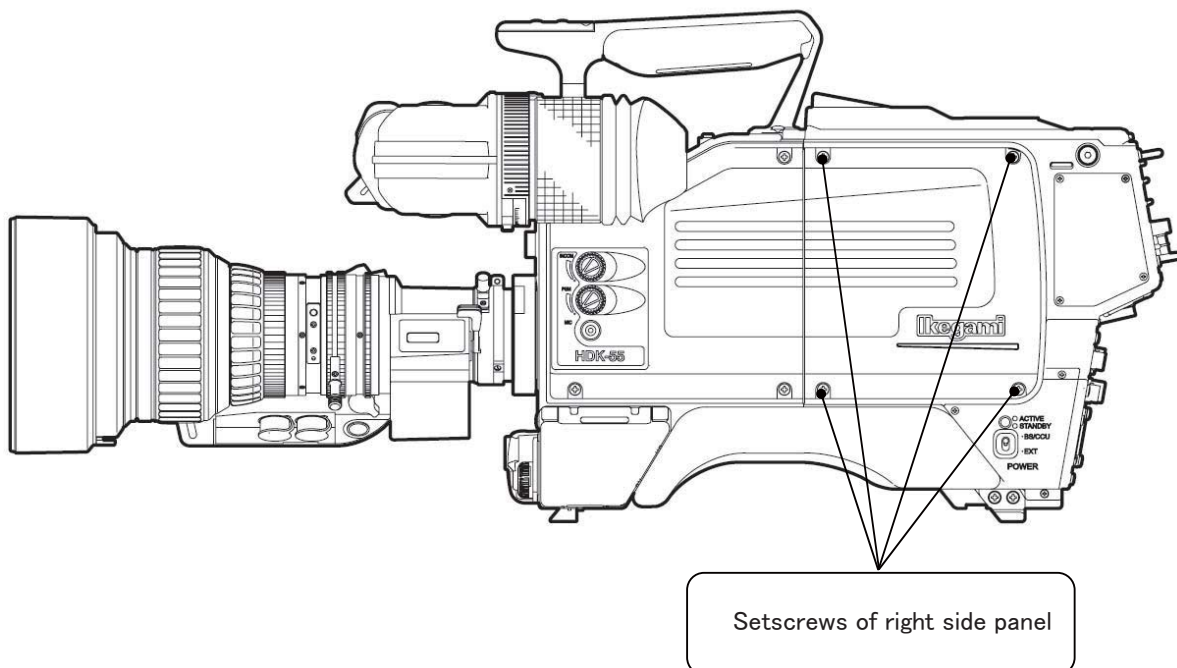
# 3 Draw out the ATO fuse upwards.

ATO fuse
（12V・15A/Blue）

Draw out upwards.

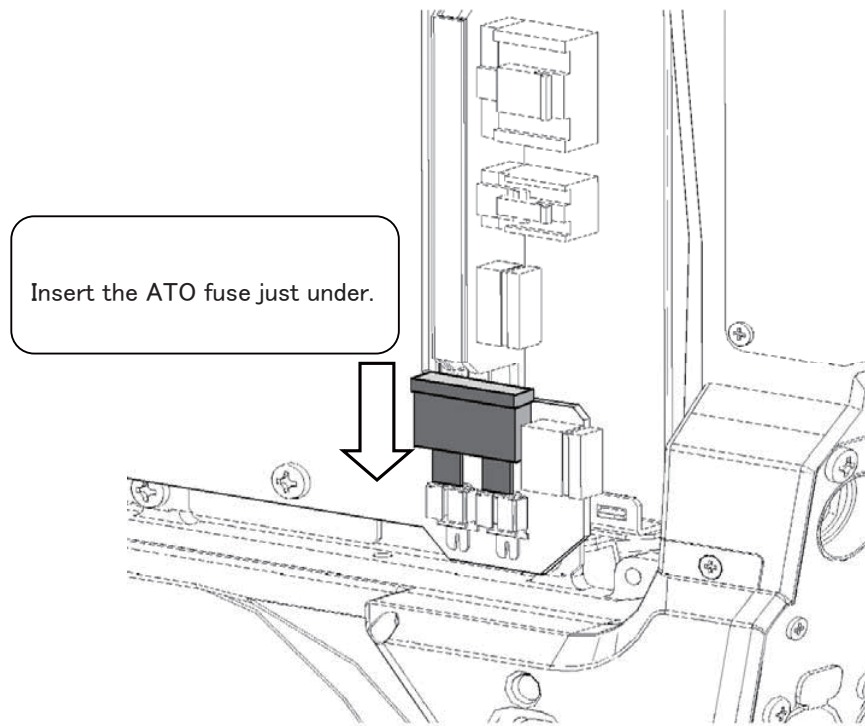## *Note:*

The fuse has blown if the portion enclosed with a circle has melted.
If so, exchange the fuse. (same or　an equivalent.)

Melting position

Current value

**4** Insert the ATO fuse (15A) to the fuse sockets.

Insert the ATO fuse just under.

**CAUTION:**
The fuse must use the specified fuse or an equivalent article.

**5** Tighten four setscrews on the right side panel and close DTA-55 right side panel.

# Change Information

This chapter contains the revision information of user-specific request design that requested from users.

# DTA-55
# CAMERA ADAPTOR
# OPERATION MANUAL

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