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Operation Manual

Remote Operation unit

RU-Z1

IMPORTANT: READ "CAUTION FOR SAFE OPERATION" CAREFULLY AND UNDERSTAND THEM BEFORE USING YOUR COLOR CAMERA. RETAIN THIS OPERATION MANUAL FOR FUTURE REFERENCE.

READ AND SAVE THIS BOOK

 **Hitachi Denshi, Ltd.**

1. GENERAL

The RU-Z1 is a remote operation unit for the Hitachi Z-ONE series and FP-C10 series portable color cameras. The RU-Z1 is used when using the cameras as an EFP or studio camera.

2. INSTRUCTIONS FOR OPERATION

- (1) The RU-Z1 can be installed in the rack or on the table. For rack-mounting, remove the rubber feet, and for desk-top use, remove the rack mount brackets.
- (2) When installing the RU-Z1, note the internal heat radiation. Especially when using it on the table or floor, do not place things on the RU-Z1. If doing so, internal heat radiation is prevented to raise the internal temperature, which may cause trouble.
- (3) Use the specified camera cable only.
- (4) Do not twist or fold the camera cable to avoid damage to the cable wires.
- (5) If the video signal which is not synchronized with the camera is fed to AUX, the output signal may be interfered by the input signal.
- (6) A short-circuit protection circuit is built in the power supply section of the RU-Z1. When the short-circuit protection circuit is activated, turn off power. Remove the cause of the short circuit, and then turn on power. Since it takes about 10 seconds to restore the short-circuit protection circuit, turn on power again ten seconds or more after turning off power.
- (7) The functions and operations of the controls on the front panel are changed according to the connected camera. For details, see the table on the next page. This manual is described on the assumption that the Z-ONE-C color Camera is connected.

	Z-ONE	Z-ONE-A	Z-ONE-B	Z-ONE-C	FP-C10	FP-C10A	FP-C1	FP-C2
FUNCTION	No	No	No	Yes	No(Note 1)	No(Note 1)	No	No
UP, DOWN	No	No	No	Yes	No(Note 1)	No(Note 1)	No	No
CHECK	Status display	ditto	ditto	ditto	ditto	ditto	No	No
DTL	No	No	No	Yes	Yes	Yes	No	No
SHUTTER	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000	ditto	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000, + Var (Note 2)	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000, + Var, + CCD IRIS	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000,	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000, + Var, (Note 2) + CCD IRIS	Auto setup operation	ditto
WHITE BAL	PRESET ↓ MEM1 ↓ MEM2 AUTO	ditto	ditto	PRESET ↓ MEM1 ↓ AUTO	ditto	ditto	PRESET ↓ MEM1 ↓ MEM2	ditto
GAIN (dB)	0, +9, +18	ditto	ditto	0 to +24 (in 3dB steps)	0, +9, +18	ditto	ditto	ditto

Note 1: For details, see the operation manual of the used camera.

Note 2: Change a shutter speed at the camera side.

For the Z-ONE-B and the FP-C10A, the Var mode can be remotely established, but the shutter speed cannot be changed.

3. COMPOSITION

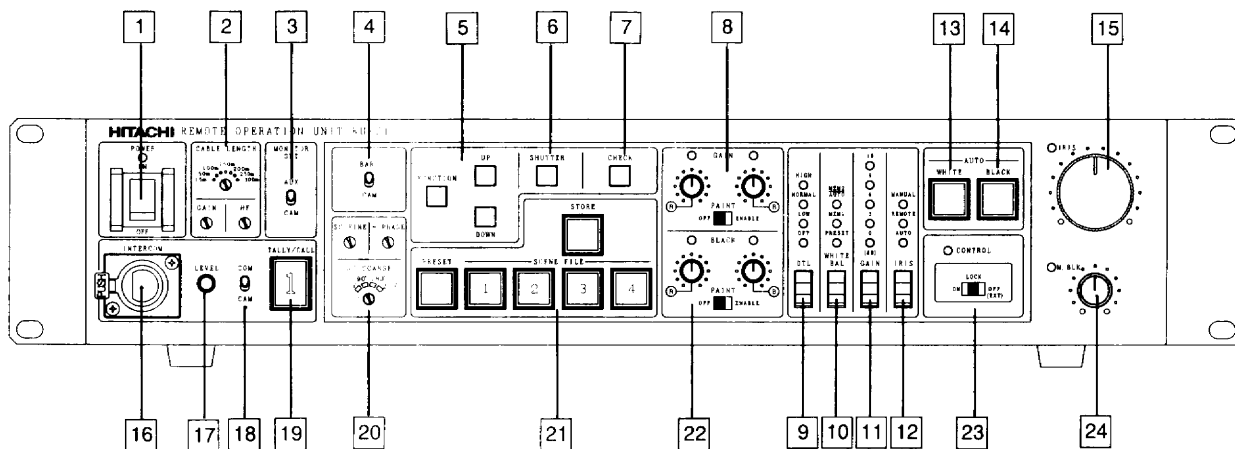
Standard composition

Remote Operation Unit, RU-Z1	1
ROU Adaptor, ROU-ADP2	1
Intercom Adaptor, IA-Z1	1
AC cordset	1
Tally number card (Nos. 1 to 9)	1 set
Spare fuses	
RU-Z1U	
For PC board and RU-Z1, 1.0A/125V(EFG0614)	3
RU-Z1E/K	
For PC board, 1.0A/125V(EFG0614)	3
For RU-Z1, 630mA/250V(EFG0747)	3
Connector RM21TP-15S(JMR0170)	1
Operation manual	1

Optional accessories and related equipment

Color cameras	Z-ONE series, FP-C10 series
Viewfinders for studio use (5-inch)	GM-50
Viewfinder adaptor	AT-21A
Camera cable, 15m	C-152KR
Camera cable, 50m	C-502KR
Camera cable, 100m	C-103KR
Remote control box	RC-C10/RC-C11
Headset	MT-12MF

4. NAME OF EACH SECTION



1 POWER switch

2 CABLE LENGTH switch(cable length correction)

Set to the used camera cable length.(See page10)

3 MONITOR OUT switch

CAM: Camera output signal

AUX: AUX input signal

4 CAM/BARS switch

Switches the camera output signal. The BARS position is convenient for color matching of color monitors.

CAM: Video signal from the camera

BARS: Color bar signal

5 FUNCTION setting buttons

Set each function displayed on the FUNC menu screen of the color camera by the UP/DOWN button.

For details, see the operation manual of the connected color camera. This button does not function for some cameras.

6 SHUTTER button

Selects the desired electronic shutter mode. For selectable values, see page 17.

7 CHECK button

The information on the operating status of the camera is available from MONITOR OUT.

For details, see the operation manual of the connected color camera.

8 GAIN controls

Adjusts the R/B GAIN to align the colors among the cameras. (See page 15)

- When WHITE BAL [10] is set to PRESET, the gain changes largely.

- When WHITE BAL [10] is set to other than PRESET, the gain changes slightly.

9 DTL switch

Each pressing this switch upward changes from OFF to LOW to NORMAL to HIGH to OFF.

Each pressing this switch downward changes from OFF to HIGH to NORMAL to LOW to OFF. This switch does not function for some cameras.

10 WHITE BALANCE switch

Each pressing this switch upward changes from PRESET to MEM1 to MEM2/AUTO to PRESET.

Each pressing this switch downward changes from PRESET to MEM2/AUTO to MEM1 to PRESET.

Note: When MEM2/AUTO is selected, MEM2 is available for some cameras, and AUTO is available for the other cameras.

11 GAIN switch

Each pressing this switch upward changes from 0 to 3 to 6 to 9 to 12 to 15 to 18 to 21 to 24dB. Each pressing this switch downward changes from 24 to 21 to 18 to 15 to 12 to 9 to 6 to 3 to 0dB. (See page 12)

Note: 1. 12dB, 15dB, 21dB and 24dB are indicated by the combination of two LEDs.

2. Some of the above setting positions are skipped for some cameras.

12 IRIS switch

Each pressing this switch upward changes from AUTO to REMOTE to MANUAL. Each pressing this switch downward changes from MANUAL to REMOTE to AUTO.

AUTO: Auto iris operation

REMOTE: Adjustable by the IRIS control 15

MANUAL: Manually adjustable by a cameraman

13 AUTO WHITE button

When this button is pressed when the WHITE BAL switch 10 is set to MEM1 or MEM2, the LED lights for approximately one second, and white balance is automatically adjusted. The adjusted data is memorized.

Note: For some cameras, MEM2 is not available (realtime AUTO operation).

14 AUTO BLACK button

When this button is pressed, the LED lights for approximately one second, and black balance is automatically adjusted. The adjusted data is memorized.

15 IRIS control

- When the IRIS switch 12 is set to REMOTE, the lens iris is variable from open to close.
- When the IRIS switch 12 is set to AUTO, the lens iris can be adjusted finelly (approx. ± 1 lens stop).

When the data sent to the camera does not conform to the setting position, the LED goes out. When the LED is lit by operating this control, this control becomes effective.

16 INTERCOM terminal (Canon 5-pin)

The optional headset MT-12MF is connectable.

17 LEVEL CONTROL

Adjusts the sound volume of the intercom system.

18 Intercom switch (CAM/COM)

CAM: Intercom with the camera

COM: Intercom including external systems

19 Tally lamp, call switch (TALLY/CALL)

The tally lamp lights when an external tally signal is connected or when a call signal is fed from the camera.

Press this switch to call the camera side.

Note: Insert an appropriate tally number card under the switch cap, referring to the INSTRUCTIONS ON TALLY NUMBER CARD.(See page 7.)

20 Genlock controls (See page 18).

21 SCENE FILE buttons (See page 13)

22 BLACK controls

Adjusts the R/B BLACK to align the colors among the cameras. (See page 14)

- When WHITE BAL 10 is set to PRESET, the gain changes largely.
- When WHITE BAL 10 is set to other than PRESET, the gain changes slightly.

23 Control lock switch (CONTROL)

ON: All controls operate. (LED:Lit red)

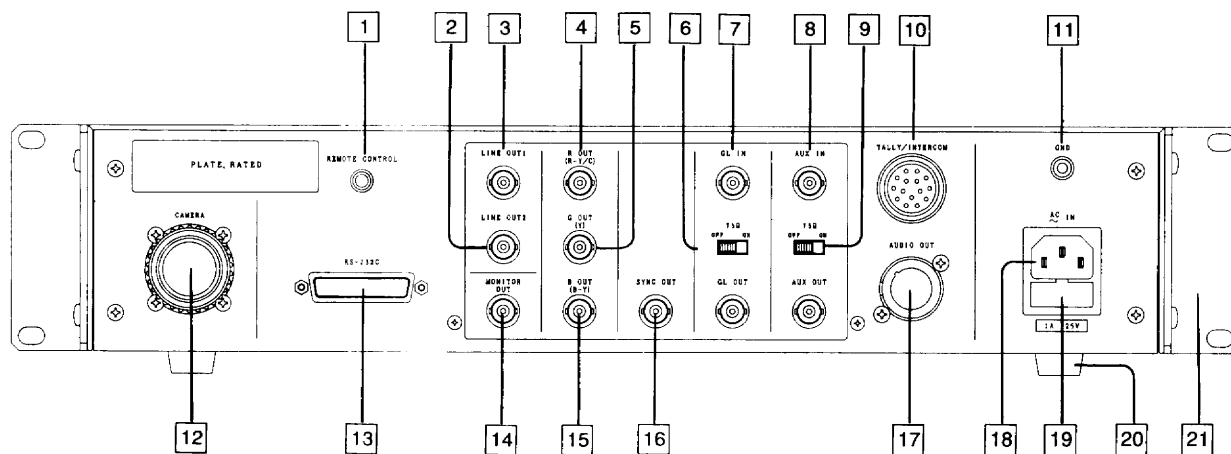
LOCK: All controls except for some controls are locked with the current status to prevent erroneous operations.(LED:Lit green)

OFF(EXT): The control data are not fed from the RU-Z1, and all the operations can be done at the camera side.(LED:Not lit)

Note: When the RC-C10 or a personal computer is connected to control the camera, set this switch to OFF(EXT).

24 M. BLACK control

Adjusts the master black level. When the level becomes equal to the memorized value, the LED lights, and the subsequent adjustment can be done.



1 REMOTE CONTROL terminal

Connect the optional RC-C10 Remote Control Box.

2 LINE OUT 2 terminal

The video signal (VBS) is available. [BNC]

3 LINE OUT 1 terminal

The video signal (VBS) is available. (BNC)

4 R OUT(R-Y/C) terminal

The red (R) signal is available.

Note: When the switch at the camera side is set to COMP, the R-Y signal is available. When the switch is set to Y/C, the C signal is available.

5 G OUT (Y) terminal

The green (G) signal is available. The sync signal is added only to the G signal. When the G signal not provided with the sync signal, set the internal switch (page 10) to OFF.

Note: When the switch at the camera side is set to COMP or Y/C, the Y signal is available.

6 GL IN 75Ω termination switch

7 GL IN/GL OUT terminals

Connect the VBS or black burst signal to the GL IN terminal for the genlock mode operation.

8 AUX IN/AUX OUT connectors

Connect the AUX video signal to the AUX IN terminal.

This signal can be fed to the viewfinder or the MONITOR OUT terminal **14** .

9 AUX IN 75 Ω termination switch

10 TALLY/INTERCOM

Connect the tally and intercom signals from an external system. (For connection, see page 20.)

11 GND

When potential difference between this terminal and the GND terminal of other equipment is present, connect both the GND terminals by as bold a braided wire as possible.

12 CAMERA terminal

Connect a color camera, using the optional camera cable.

13 RS-232C terminal

Connect a personal computer, using the RS-232C cable. Then, the camera can be controlled from the personal computer.

Note: When the REMOTE CONTROL terminal (4-pin) **1** is used, this 4-pin terminal has a priority.

14 MONITOR OUT terminal

The same video signal (including the character display) as the viewfinder is available.

15 B. OUT terminal

The blue (B) signal is available.

Note: When the switch at the camera side is set to COMP, the B-Y signal is available.

16 SYNC OUT terminal

The sync (SYNC) signal is available.

17 AUDIO OUT terminal

The audio signal of approx. 0dBm from the camera is available. (For connection, see page 20.)

18 AC IN terminal

Connect the supplied power cord between this terminal and a commercial AC source.

19 Fuseholder

In case the fuse is broken, replace with the supplied fuse.

Note: In case the replaced fuse is broken, contact your local Hitachi Denshi sales office.

20 Rubber feet

Remove these feet when installing this unit in a rack.

21 Rack mount adaptor

Remove this adaptor when using this unit as a desk-top unit.

INSTRUCTIONS ON TALLY NUMBER CARD

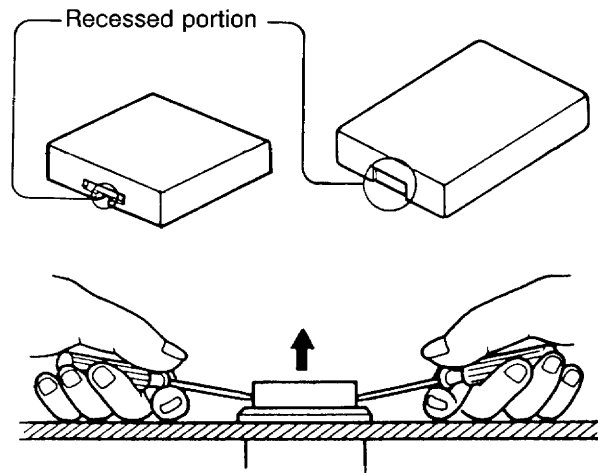
I. Removal of the TALLY/CALL switch cap

1. Apply the tips of screwdrivers to the recessed portions at both sides of the cap.
2. Apply uniform force to both sides and raise the cap.

Note: Do not attempt to remove the cap with the switch pressed.

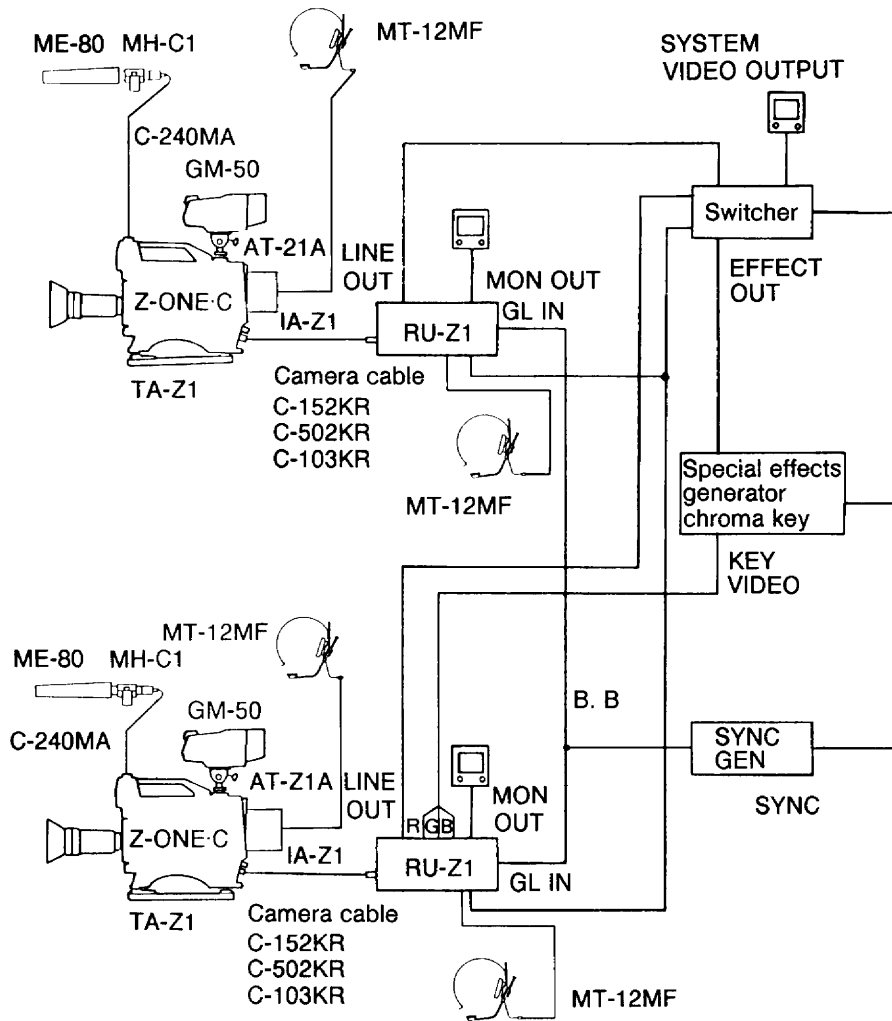
II. Placement of a tally number card

1. After removal of the TALLY/CALL switch cap, place an appropriate tally number card on the switch.
2. Install the removed switch cap.



5. SYSTEM CONFIGURATION

Typical system configuration



Contact your nearest Hitachi Denshi sales representative for other system configurations.

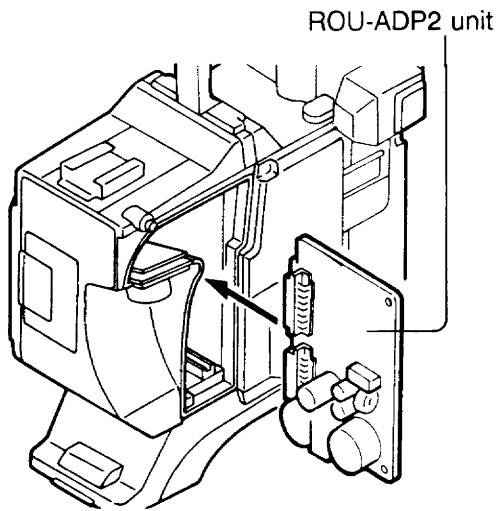
Connection

Prior to connecting the Remote Operation Unit to a camera, install the supplied ROU Adaptor and the Intercom Adaptor IA-Z1 on the camera.

1. Installation of the ROU Adaptor

Remove the right side cover of the camera, and insert the ROU Adaptor along the guide rails until the connectors of the Adaptor are connected securely.

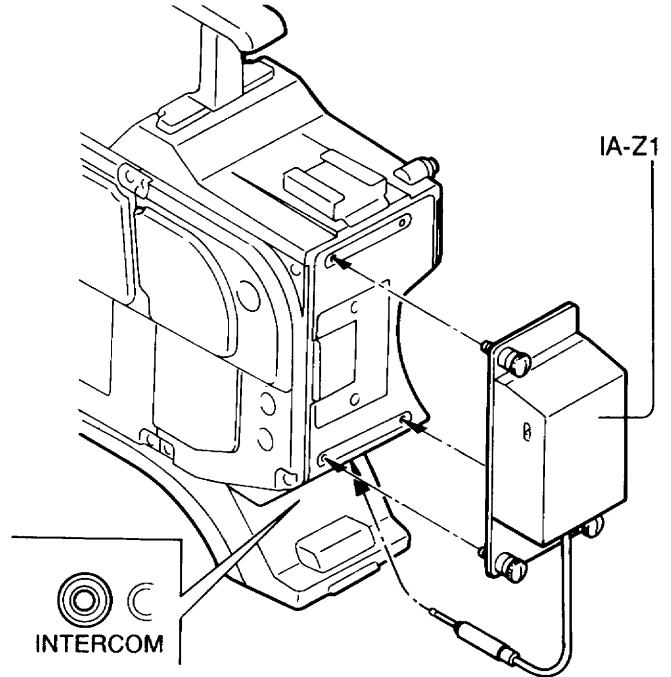
Then, install the removed side cover.



Note: Prior to installation of the ROU Adaptor, be sure to turn off the power of the camera.

2. Installation of the intercom Adaptor

Install the Intercom Adaptor on the rear of the camera, using the screws. Then, connect the plug to the INTERCOM terminal of the camera.



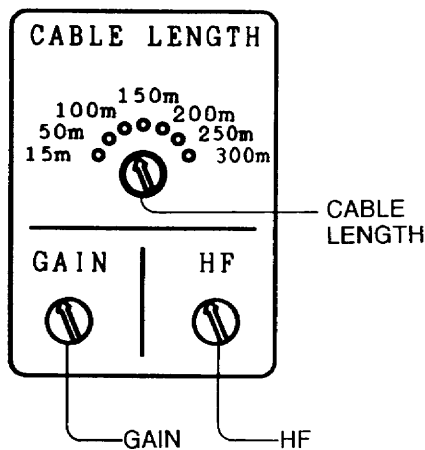
3. Connection to the camera

Use the optional camera cable to connect this unit to the camera.

The maximum cable length between the two units is 300m.

Optional camera cables

Type	Length
C-152KR	15m
C-502KR	50m
C-103KR	100m



(1) CABLE LENGTH switch

Set the CABLE LENGTH switch appropriately according to the length of the camera cable.

(2) GAIN control

Adjust the GAIN control, viewing a waveform monitor, so that the signal level at the low frequency portion becomes equal to the rated level.

(3) HF control

Adjust the HF control so that the signal level at the high frequency portion becomes appropriate.

Note: Prior to connection or removal of the camera cable, be sure to turn off power.

4. Connection to peripheral equipment

Connect the pins of the TALLY/INTERCOM connector on the rear panel as shown on page 20.

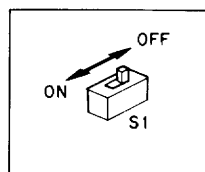
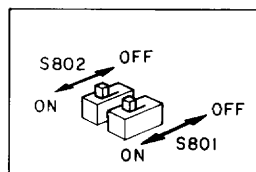
(1) Tally signal connection

Connect the pins of the TALLY/INTERCOM connector in accordance with the system configuration (voltage or closure).

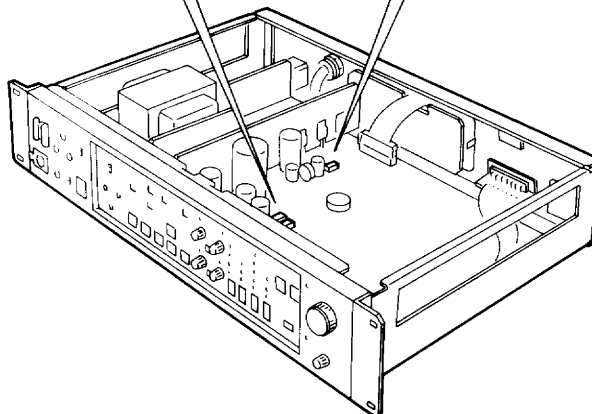
(2) Intercom connection

In case of the RTS intercom system, set S801 and S802 to the respective ON positions. (Normally, they are set to ON.)

Intercom system	S801 S802
RTS	ON
OTHERS	OFF



SYNC	S1
Yes	ON
No	OFF

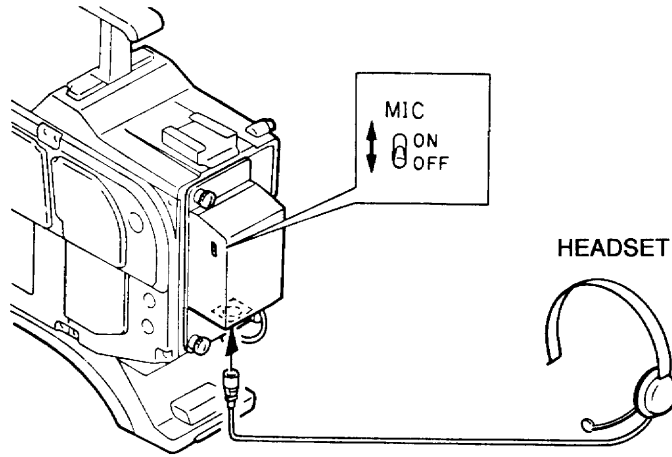


Note: When S801 and S802 are set to the respective OFF positions, the internal circuit is jumpered.

(3) Application of SYNC to G OUT

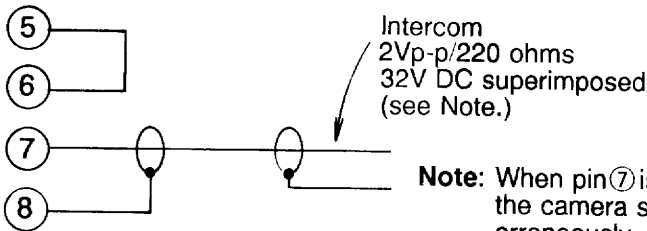
Prior to application of SYNC to G OUT, set S1 to ON. (Normally S1 is set to OFF)

The mic of the cameraman's headset can be turned on or off by the MIC ON-OFF switch on the Intercom Adaptor.



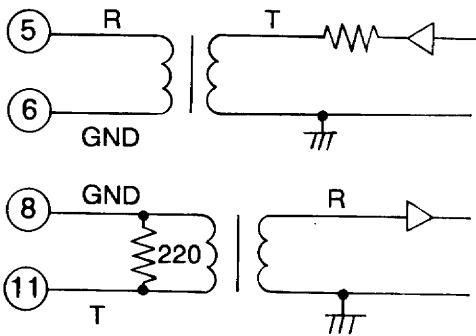
1. INTERCOM interface

1) 2 wire



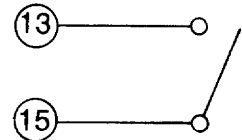
Note: When pin ⑦ is grounded, the tally at the camera side operates erroneously. Therefore, when the DC voltage is not superimposed, connect to pin ⑪ instead of pin ⑦.

2) 4 wire

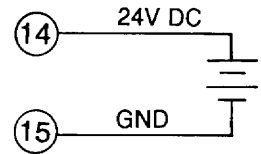


2. TALLY interface

1) Closure



2) Voltage



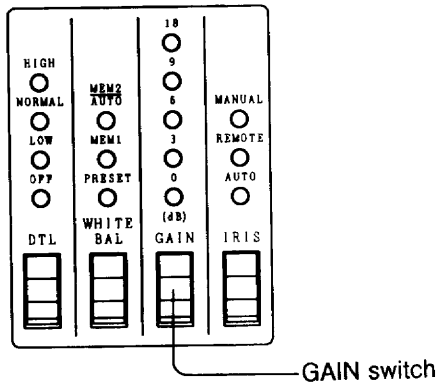
(Either polarity will do)
Note that pin ⑮ is connect edto GND in the RU-Z1.

Wiring of the TALLY/INTERCOM connector
(For connection, see page 20.)

(3) Connection of audio unit

To connect the audio output signal to another audio unit, see page 20.
Output signal: Approx. 0dBm/600ohms, balanced.

6. GAIN SWITCH



Though this Remote Operation Unit has the commands to switch the gain in 3dB steps from 0 to 24dB, the actual operation is determined by the function of a connected camera.

The GAIN switch functions as listed below according to a connected camera.

CAMERAS	MODE I				MODE II	
	Z-ONE-C		Other than Z-ONE-C		All models	
Command	Operation	LED lights	Operation	LED lights	Operation	LED lights
0	0	0	0	0	0	0
3	3	3	0	3	Skip	
6	6	6	0	6		
9	9	9	9	9	9	9
12	12	9 and 3	9	9 and 3	Skip	
15	15	9 and 6	9	9 and 6		
18	18	18	18	18	18	18
21	21	18 and 3	18	18 and 3	Skip	
24	24	18 and 6	18	18 and 6		

Selection of Mode I and Mode II

Mode I :Turn on power, while pressing the GAIN switch upward.

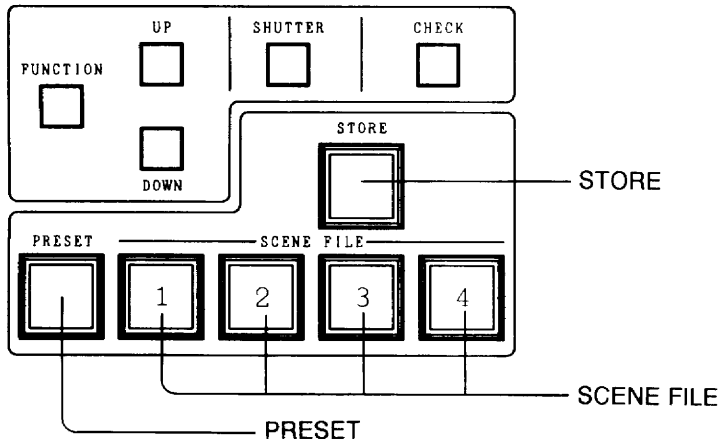
Mode II :Turn on power, while pressing the GAIN switch downward

Note: The selected mode is memorized.

Before shipment, Mode II is established.Skip

7. SCENE FILE

When shooting the scenes under different shooting conditions, it is needed to perform the settings appropriate to the scene. With the scene file function, it is possible to memory various shooting conditions. Therefore, when a scene is changed to another scene, the appropriate shooting conditions are read instantly from the file. This unit is provided with four files, and four kinds of shooting conditions can be memorized.



Items to be memorized to the files

1. R. GAIN(center)
2. B. GAIN(center)
3. R. BLACK(center)
4. B. BLACK(center)
5. M. BLACK(center)
6. IRIS(center)
7. WHITE BAL MODE(PRESET)
8. GAIN MODE(0dB)
9. IRIS MODE(AUTO)
10. DTL MODE(NORMAL)

() indicates the setting condition when the PRESET switch is pressed.

The setting condition of the PRESET switch cannot be changed.

Operating procedure

1. Aim the camera at the desired scene, and adjust each control on the Remote Operation Unit appropriately.
2. Press the STORE switch; the STORE switch LED blinks.
3. Press any of the SCENE FILE switches. Then, the STORE switch LED continues to light for approximately one second, and the selected SCENE FILE switch LED lights to indicate that the data are memorized,

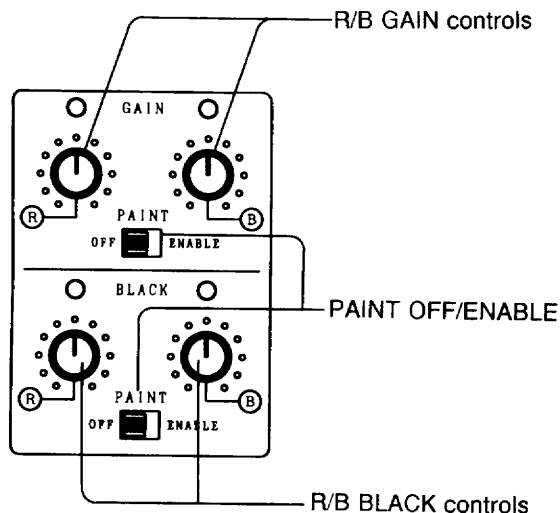
- Note:**
1. When the STORE switch is pressed again at step 2 above, the led goes off, resulting in the canceled state.
 2. To clear the memorized data, press the PRESET switch, first, and then press the STORE switch and the desired SCENE FILE switch in this order.
The data of the same conditions as the PRESET switch are memorized.

Caution

1. When a SEENE FILE Switch is selected, the switch LED lights. In this case, if the position of any control is changed, the LED blinks. Once the data is changed, the LED continues to blink even if the control is set to the original position. In this case, another pressing the SCENE FILE switch allows the LED to blink. In other words, the data memorized to the SCENE FILE memory is the same as the current setting data, the LED lights. If they are different, the LED blinks.
2. When power is turned on, the data memorized to the SCENE FILE immediately before power off are read.

8. R/B GAIN AND R/B BLACK CONTROLS

When plural cameras are connected to a video switcher or a special effects generator, color tones differ among the cameras. The difference in color tones can be adjusted.



When the control is turned until the data sent to the camera is obtained, the LED continues to light, and the adjustment by the control can be done.

Example of the R GAIN control operation

1. Memorizing of data to the SCENE FILE

(1) Memorizing of the control data of a control

Procedure ① Set the PAINT OFF/ENABLE switch to ENABLE.

② Turn the R GAIN control so that the LED continues to light. (The memorized data corresponds to the setting position of the control.)

③ Adjust the R GAIN control appropriately.

④ Press the STORE switch, and select the desired SCENE FILE switch.

(2) Memorizing of the center value (preset value)

Procedure ① Set the PAINT OFF/ENABLE switch to OFF.

② Press the STORE switch, and select the desired SCENE FILE switch.

2. Reading of data from the scene files

(1) Normal operation mode

Procedure ① Set the PAINT OFF/ENABLE switch to ENABLE.

② Press the desired SCENE FILE switch or the PRESET switch.

(2) When data has been read with the PAINT switch set to OFF

Procedure ① Take the same procedure as 2 (1) above.

3. Readjustment of data in the scene files

Procedure ① Take the same procedure as 2(1), and then, take the same procedure as 1 (1).

PAINT OFF/ENABLE switch

OFF: The preset values are obtained regardless of the setting positions of the R/B GAIN and R/B BLACK switch.

ENABLE: The R/G GAIN and R/B BLACK controls are effective and the data can be read to or from the scene files.

R/B GAIN controls

When the PAINT switch is set to ENABLE, each gain of the R and B signals can be changed. When the WHITE BAL switch is set to PRESET, the gain is changed largely. When the switch is set to other than PRESET, the gain changed finely.

R/B BLACK controls

When the PAINT switch is set to ENABLE, each black level of the R and B channels can be changed. When the WHITE BAL switch is set to PRESET, the black level is changed largely. When the switch is set to other than PRESET, the black level is changed finely.

Note: When each control is set to the position different from the data sent to the camera, its LED goes off to indicate that the adjustment by the control is not performed.

4. Comparing of the adjusted value of a control and its center (preset) value

Procedure ① Take steps ① and ② of the procedure 1(1).
② Switch the PAINT ENABLE/OFF switch and compare both values.

5. Comparing of the data memorized to the scene files and the center (preset) value.

(1) Comparing both data after adjusting the position of a control for the data memorized to the scene files

Procedure ① Take the same procedure as 2 (1), and then take the steps ① and ② of the procedure 1 (1). Use care not to blink the SCENE FILE LED.
② Switch the PAINT ENABLE/OFF switch and compare both data.

6. (2)When the setting position of a control remains unchanged

Procedure ① Take the same procedure as 2 (1). If the R GAIN LED lights, take the same procedure as 5 (1). If the LED goes off, proceed to step ②.
② Switch the PAINT ENABL R/OFF switch and compare both data.
When the switch is switched to ENABLE, press the desired SCENE FILE switch to read the data.

Note: Take the same procedures for each of the B GAIN, R BLACK and B BLACK control.

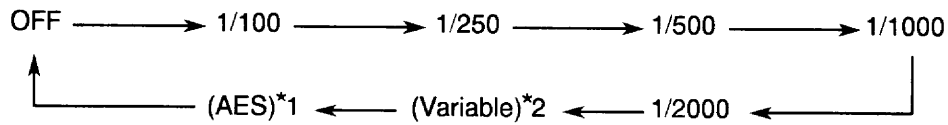
Setting conditions and scene files

	STORE	PRESET	SCENE 1 to 4
ENABLE	Ready to memory setting position of control.	Center value is read. Control is valid.	Data is read/written to scene files. Control is valid.
PAINT OFF	Ready to memory center value.	Center value is sent. Control is not valid.	Center value is sent/written. Control is not valid.

9. ELECTRONIC SHUTTER

Each pressing the SHUTTER button changes the shutter speed in the following sequence.

[Start]



- *1 Functions only when the Z-ONE-C or the FP-C10A color camera is connected. (For some cameras, "CCD IRIS" is displayed.) For the other color cameras, this function is skipped.
- *2 Functions only when the Z-ONE-B, the Z-ONE-C or the FP-C10A color camera is connected. For the other color cameras, this function is skipped.

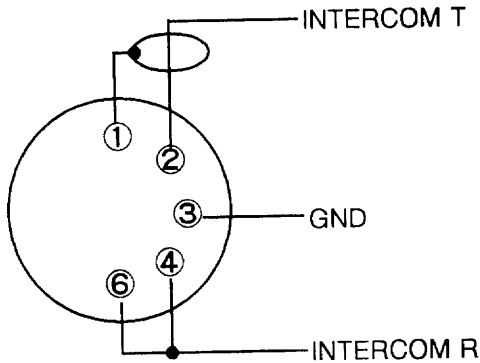
11. SPECIFICATIONS

(1) Color system	NTSC or PAL-B	(10) Control items
(2) Output signals		<ul style="list-style-type: none"> ● R GAIN ● B GAIN ● BAR/CAM switching ● HIGH GAIN switching ● MASTER BLACK LEVEL ● R BLACK LEVEL ● B BLACK LEVEL ● WHITE BALANCE(MEM1/PRESET $\frac{\text{MEM2}}{\text{AUTO}}$) switching ● SC PHASE ● H PHASE ● IRIS CONTROL ● IRIS(MANUAL/REMOTE/AUTO) switching ● MOM output (AUX/CAM) switching ● AUTO WHITE ● AUTO BLACK ● SHUTTER ● CHECK ● CALL ● TALLY ● Communication (CAM/COM) switching ● Cable length selection ● Fine control of cable length correction ● Scene files(4files + one PRESETfile) ● CONTROL(OFF/LOCK/ON) switching ● DTL switching
<ul style="list-style-type: none"> ● LINE output 1 ● LINE output 2 ● MON output ● RGB output 	VBS 1.0Vp-p/75 ohms VBS 1.0Vp-p/75ohms VBS 1.0Vp-p/75 ohms V 0.7Vp-p/75 ohms or VS 1.0Vp-p/75 ohms for G channel only	
<ul style="list-style-type: none"> ● AUDIO output ● SYNC output 	0dBm/600 ohms 2.0Vp-p/75 ohms	
(3) Input signals		
<ul style="list-style-type: none"> ● AUX VIDEO input ● GEN LOCK input ● SERIAL DATA input ● TALLY input ● INTERCOM input ● RS-232C input 	VBS 1.0Vp-p/75 ohms or loop-through VBS 1.0Vp-p/75 ohms or loop-through 1.5Vp-p/high impedance Closure or voltage (24V) Dynamic mic usable H: +5 to +15V, L: -5 to -15V/3 to 7k ohm	
(4) Power supply	RU-Z1 AC 100V-117V 50/60Hz RU-Z1 E/K AC 220V-240V 50Hz	
(5) Power consumption	52W approx.	
(6) Max. cable length	300m	
(7) Ambient temperature	+5 to +40°C(+41 to 104°F)	
(8) Dimensions	482(W) × 88(H) × 300(D)mm	
(9) Mass	7.5kg approx.	

Specifications and appearance are subject to change without notice for improvement.

12. WIRINGS OF CONNECTORS

INTERCOM connector



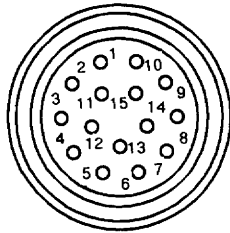
Plug:HA216J-5P

Applicable headset specification

TALK: -80dB, 200ohms

RECEIVE: 114dB/1mW, 8 to 40ohms

TALLY/INTERCOM Connector

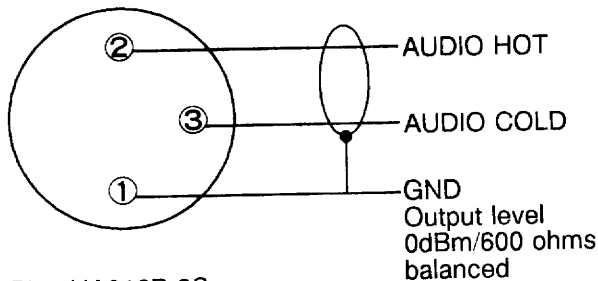


Plug:RM21TPA-15S

Pin	Signal name	Pin	Signal name
5	INTERCOM L2	12	INTERCOM GND
6	INTERCOM L2 GND	13	TALLY M
7	2W INTERCOM L1	14	TALLY V
8	INTERCOM	15	TALLY COMM(GND)
11	4W INTERCOM L1		

(Note) 1, 2, 3, 4, 9 and 10 are not connected

AUDIO OUT Connector



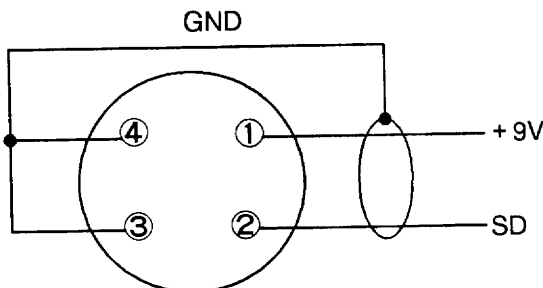
Plug:HA216P-3S

Intercom input/output level

INTERCOM L1 input/output: 2Vp-p/220ohms

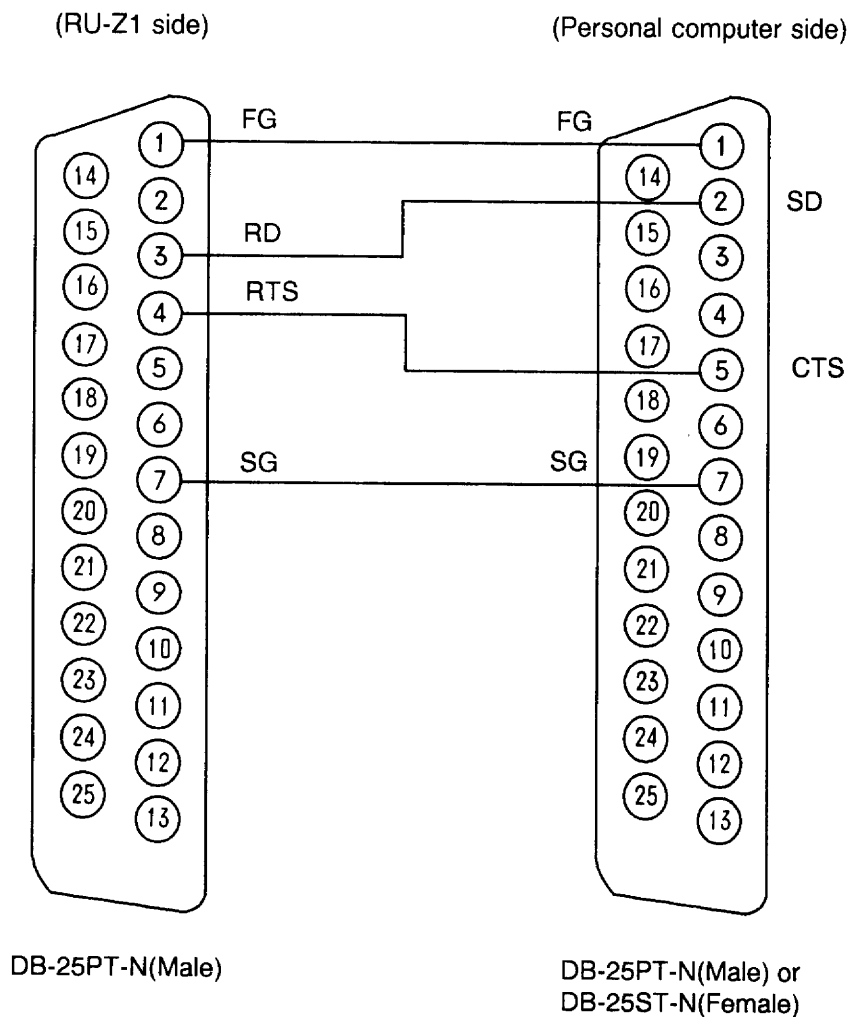
INTERCOM L2 input: 2Vp-p/high

REMOTE Connector



Plug:HR10A-7P-4P

RS-232C Connector



Instructions on the use of RS-232C connector

The FP-C10, FP-C10A, Z-ONE-B and Z-ONE-C can be controlled from a personal computer through the RS-232C interface.

For the control items, contact Hitachi Denshi sales office.



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