# HITACHI

DIGITAL

DIGITAL CAMERA
Z-3000W
Z-3000

Premier Performance Starring the Hitachi S-3000W /S-3000 Digital Camera

As the curtain rises on a new digital wide screen era for television, capture the scene with the all-new S-3000W digital camera. At the push of a button, the S-3000W switches from today's 4:3 aspect ratio to the 16:9 format required by the new digital television system. With its new 600,000 pixel CCD's, the S-3000W provides outstanding performance in both aspect ratios.

The advanced new single-chip DSP provides full digital video processing and digital encoding. This DSP provides enhanced gradation response and color reproduction accuracy for sharper and cleaner images, and the built-in digital noise reduction assures superb low-light operation.

Designed for the demanding needs of field production, the S-3000W is built to last with a die cast frame that is lightweight and yet provides great strength. This new design also offers a lower center of gravity for optimum shoulder balance and the lower profile improves the right side visibility for added operator safety.

Use the S-3000W today with PAL's 4:3 aspect ratio and with the push of button be ready for tomorrow's wide aspect ratio digital television.
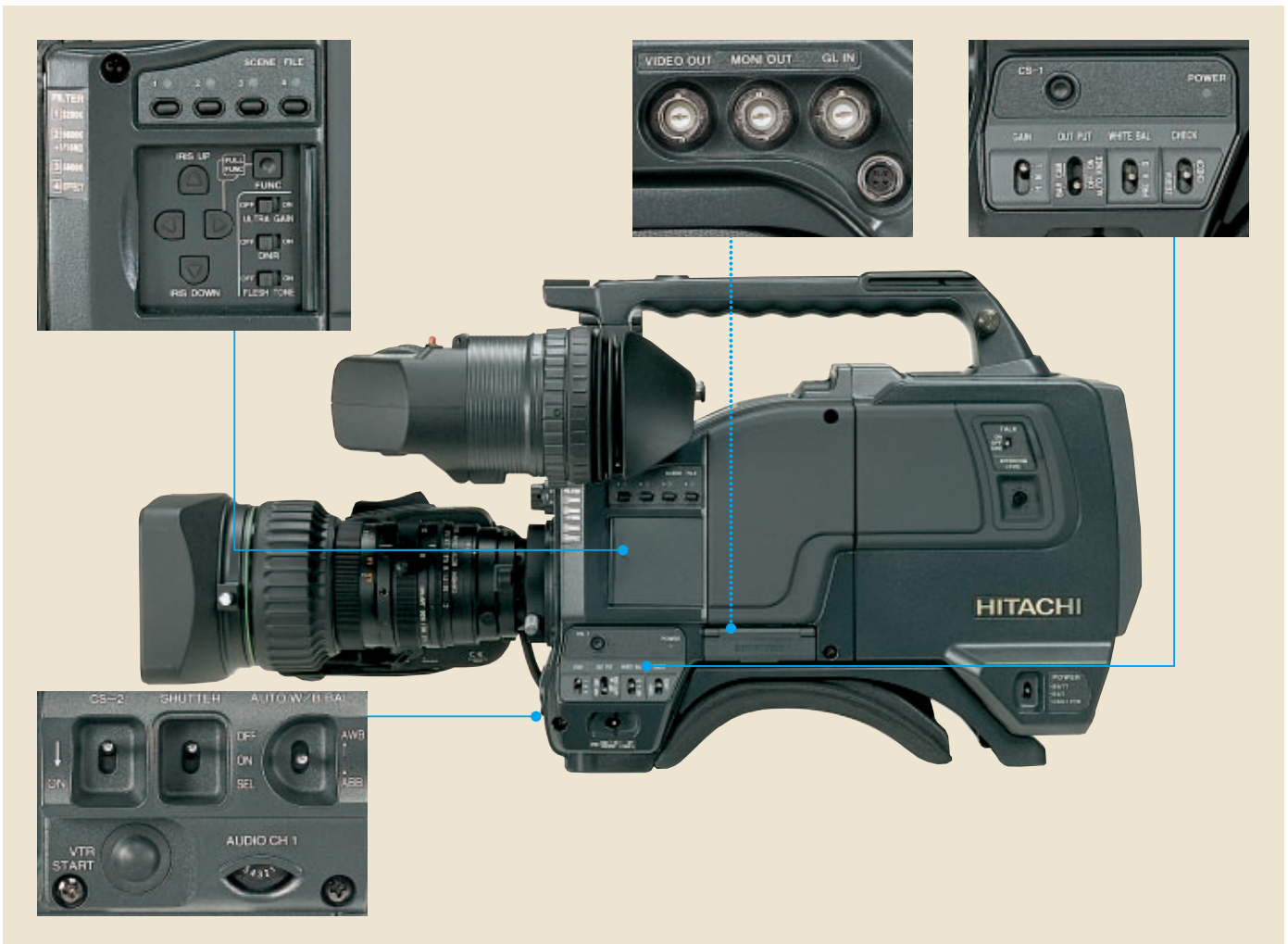
Outstanding Features.

Low Smear.

The outstanding low smear is due to the new 2/3-inch, 16:9 wide aspect ratio, 600,000 pixel CCD with micro-lens technology.

Switchable 16:9/4:3 and 4:3 only.

The S-3000W provides the video professional the freedom to do productions in a 16:9 or 4:3 aspect ratio at the push of a button. The 2/3-inch, 600,000 pixel CCD's and digital switching assure the highest picture quality and 750 TV lines of horizontal resolution is preserved in either aspect ratio.

The S-3000 operates in a dedicated 4:3 mode and offers maximum performance value for the investment. The 2/3-inch, 620,000 pixel CCD's (4:3 aspect ratio) achieve 900 TV lines of horizontal resolution. In all other aspects, the S-3000 offers the same features and specifications as the S-3000W.

Next-Generation DSP.

Hitachi's unique DSP technology encompasses the video digital processing and the encoder into a single LSI device. This single chip DSP design reduces the size, power consumption and greatly enhances stability.

The 10 bit A/D converter and 13 to 18 bit DSP processing provide a high S/N ratio and wide dynamic range.

Signal to Noise Ratio.

With the new digital noise reduction and low noise DSP technology, a S/N ratio of 65dB is provided. This new technology assures clear low noise images while operating in the high gain modes.

Sensitivity - F11+1/2 (S-3000W) [2000 lx].

A total of +36dB of gain is available for imaging low light scenes down to 0.35 lx F1.4 (S-3000W). The +36dB gain is a combination of +24dB high gain and low noise +12dB ultra-gain.

Setup card.

A small plug-in setup card (Compact Flash type) stores the user setup information for later recall. The setup card offers operational flexibility by storing and recalling setups optimized for individual scenes.

Versatile CCD Shutter.

Four modes of shutter operation are provided: Five Preset electronic shutter speeds, Lock Scan to image computer monitors without flicker, Auto Electronic Shutter (AES) maintains the video level with a fixed lens f-stop, and CC Frame offers improved vertical resolution.

Digital Processing Improves Image Highlight Quality.

Dyna-Chroma and Auto Knee.

The auto knee provides a wide dynamic range by compressing the video above 100%. Dyna-chroma restores color saturation to scene highlights above 100%.

Automatic Flesh Tone Detail.

Flesh tone detail smooths and softens facial lines and blemishes without sacrificing overall scene detail. Automatic flesh tone detail provides an easy and fast means to optimize flesh tone detail.

Variable Detail Boost Frequency.

The detail center frequency is user selectable to match the detail signal to the scene.

6-Vector and Linear Matrix.

The 6-vector and linear matrix provide the user a wide latitude in subjective image color control. The linear matrix provides overall color control and the 6-vector color corrector provides independent control of the hue and saturation for each of the three primary and three secondary colors.

Special Gamma.

Adjusts the initial gamma gain to optimize the reproduction of the dark scene components.

Gray Scale Automatic Setup.

This "through the lens" automatic is used in combination with a standard gray scale chart to automatically setup gain, gamma, black and flare. Markers are provided in the viewfinder to aid in the positioning of the gray scale chart and the iris is automatically adjusted to the correct video level.

Automatic shading.

Automatic shading corrects white vertical shading at the push of a button. This automatic provides separate setups to optimize the X1 and X2 lens extender positions.

Extensive User-Friendly Features.

• Quick Focus.

Quick Focus automatically opens the iris then sets the video level with the electronic shutter. With the resulting shallow depth of focus, the exact focus point can be set easily.

• Two User-Programmable Switches (CS-1, CS-2).

The user can assign full auto, quick focus or contrast to either of the two programmable switches for ease of operation.

• Full Auto.

The built-in automatic electronic shutter (AES) and automatic iris maintain the video level even with radically changing light levels. Real-time automatic white balance corrects for color temperature variations do to changing types of lighting conditions.

- • Four scene files are provided to store and recall functions such as gain, detail, and gamma.
- • A 4-point star filter is included in filter wheel.
- • Menu access is provided for iris level (fine adjust) and iris peak/average selection.
- • Computer controlled real-time auto-white balance.
- • Camera ID, date and time are displayed on the color bar display.
- • Audio test tone (1 kHz) is output when color bars are selected.

Viewfinder Displays.

- • The viewfinder displays the function tree menus.
- • Self diagnostic and check function.

• Status display.

Indicators for zoom and focus (with compatible lenses), iris F-stop, color temperature for auto white balance and other functions are displayed.

• Two mode zebra.

Menu selection of over-level or between range zebra is provided.

• Battery remaining.

Fuel-gauge for Anton Bauer Digital interactive batteries. Displays percentage of battery power remaining.

• Viewfinder V-Detail.

Vertical detail is enhanced in both the 1.5-inch VF (GM-9) and 5-inch VF (GM-51) viewfinders for easy lens focus. Horizontal detail is also provided.

- • Safety zones (4:3) can be display when 16:9 aspect ratio is set (S-3000W).

High Performance 1.5 inch Viewfinder (GM-9).

- Offers automatic switching between 16:9/4:3 display when the camera aspect ratio is changed.
- The 600 TV line resolution assures easy focus.
- Large apurture lens improves viewfinder viewing.
- Front-back, left-right and tilt positioning is provded for optimum user comfort. The bayonet mount provides a direct connection to the camera eliminating the need of a cable
- Rotates to a perpendicular position for convent carrying.

Advanced Ergonomics.

- New low center of gravity design.
- Main operation switches are grouped forward for easy access.
- Featherweight design (camera head 2.6 kg)is ideal for portable use.
- Adjustable shoulder pad position and non-slip finish provide on-the-shoulder balance, comfort and confidence.

Camera adapter with D1 output for S-3000 series CA-ZD1

Digital serial output combining with S-3000 series Camera.

- 10-bit 4 : 2 : 2 Component Serial Digital Interface (D1)   SMPTE 259M-C
- EDH (Error Detection and Handling) signal SMPTE RP165

Two D1 output (BNC connector, 26Pin connector)

The 26Pin VTR connector can be switched to provide a D1 or VBS output

(note : can not be connected to RU-Z1 / RU-Z2/RU-Z3)

Studio operation Enhancement.

The optional EA-Z3 Extension Adapter adds (in combination with the RU-Z2) intercom PD/ENG switching, prompter video output, mic 2 input, call, and Aux 1 and 2 switching to a studio system.

RU-Z3 Features

SMPTE26 bayonet connector

The 26 pin bayonet connector is easily attached and detached.

Augmented camera power supply

Approximately 70W of power is available for connecting other equipment. (Although varies with the system configuration, 40 to 50W can be taken from the CA-Z32 camera adaptor.)

Intercom system support

Intercom systems such as RTS, Clearcom and 4 wire are supported, as well as 2 channel systems.

Waveform monitor (WFM) output

Video output for a waveform monitor and control output are provided. The RC-Z2A/Z21A or a personal computer can be used for fine color and level adjustment.

Enhanced functions

Two channel microphone outputs and an auxiliary inputs are provided. A prompter input has been added, together with other significant functional enhancements.

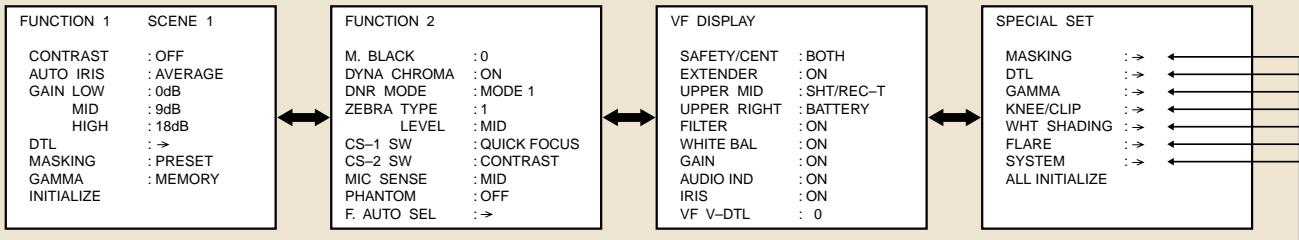#### Bi-directional communications

Camera control is advanced by a bi-directional serial control signal communication system.
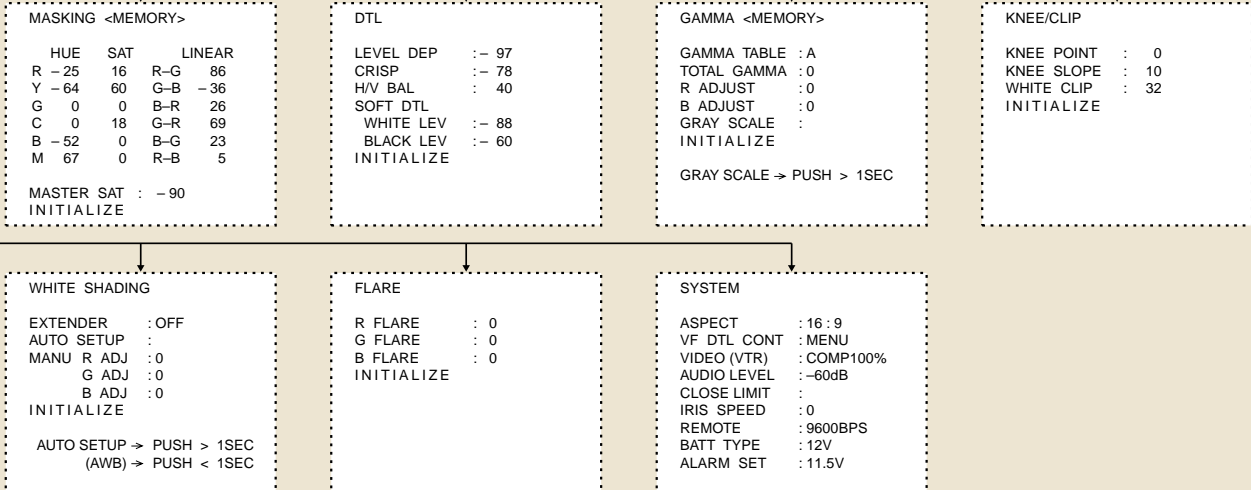
Serial digital interface (D1)

High quality digital component signals can be sent to other digital video equipment with a single coaxial cable. The added EDH (error detection and handling) function is be used for transmission error detection by the receiving equipment.

FUNCTION MENU (S-3000W)

Main Menu

FUNCTION 1   SCENE 1

CONTRAST	: OFF
AUTO IRIS	: AVERAGE
GAIN LOW	: 0dB
MID	: 9dB
HIGH	: 18dB
DTL	: →
MASKING	: PRESET
GAMMA	: MEMORY
INITIALIZE	

FUNCTION 2

M. BLACK	: 0
DYNA CHROMA	: ON
DNR MODE	: MODE 1
ZEBRA TYPE	: 1
LEVEL	: MID
CS–1 SW	: QUICK FOCUS
CS–2 SW	: CONTRAST
MIC SENSE	: MID
PHANTOM	: OFF
F. AUTO SEL	: →

VF DISPLAY

SAFETY/CENT	: BOTH
EXTENDER	: ON
UPPER MID	: SHT/REC–T
UPPER RIGHT	: BATTERY
FILTER	: ON
WHITE BAL	: ON
GAIN	: ON
AUDIO IND	: ON
IRIS	: ON
VF V–DTL	: 0

SPECIAL SET

MASKING	: →
DTL	: →
GAMMA	: →
KNEE/CLIP	: →
WHT SHADING	: →
FLARE	: →
SYSTEM	: →
ALL INITIALIZE	

Sub Menu

MASKING <MEMORY>

	HUE	SAT		LINEAR
R	– 25	16	R–G	86
Y	– 64	60	G–B	– 36
G	0	0	B–R	26
C	0	18	G–R	69
B	– 52	0	B–G	23
M	67	0	R–B	5

MASTER SAT : – 90
INITIALIZE

DTL

LEVEL DEP	: – 97
CRISP	: – 78
H/V BAL	: 40
SOFT DTL	
WHITE LEV	: – 88
BLACK LEV	: – 60
INITIALIZE	

GAMMA <MEMORY>

GAMMA TABLE	: A
TOTAL GAMMA	: 0
R ADJUST	: 0
B ADJUST	: 0
GRAY SCALE	:
INITIALIZE	

GRAY SCALE → PUSH > 1SEC

KNEE/CLIP

KNEE POINT	: 0
KNEE SLOPE	: 10
WHITE CLIP	: 32
INITIALIZE	

WHITE SHADING

EXTENDER	: OFF
AUTO SETUP	:
MANU R ADJ	: 0
G ADJ	: 0
B ADJ	: 0
INITIALIZE	

AUTO SETUP → PUSH > 1SEC
(AWB) → PUSH < 1SEC

FLARE

R FLARE	: 0
G FLARE	: 0
B FLARE	: 0
INITIALIZE	

SYSTEM

ASPECT	: 16 : 9
VF DTL CONT	: MENU
VIDEO (VTR)	: COMP100%
AUDIO LEVEL	: –60dB
CLOSE LIMIT	:
IRIS SPEED	: 0
REMOTE	: 9600BPS
BATT TYPE	: 12V
ALARM SET	: 11.5V

TU-Z3/CX-Z3

TU-Z3

Back

CX-Z3

Features

High quality video transmission
The wide bandwidth of the Y(10MHz),PB/PR(5MHz) and component FM transmission provide high resolution video with a high S/N ratio. A digital comb filter improves cross color artifacts in the vieo out put.

Digital audio transmission
To provide the highest quality microphone and intercom audio,bi-directional digital transmission is used between the camera head and base station for all audio signal and control data.

Versas intercom functions
The intercom is RTS/Clear-Com compatible and is selectable for , 2-wire and 4-wire and other intercom systems. At the camera head ,the operator can select the PD or ENG intercom channel.

Base station video outputs
The base station provides 3 encoder outputs,1 set of RGB or Y,PB,PR outputs, 1 pix monitor output and 1 waveform monitor output.

Base station video inputs
2 return video inputs and 1 prompter video input are provided.The return video signal is selected at the camera head.

Digital video interface (optional)
2 D1 serial digital outputs and 2 D1 serial digital inputs for return video are available as options.

AC/DC operation
The base station provides for both AC and DC operation. DC operation allows the triax system to use less costly coaxial cable.

Half rack base station
The compact base station is a half rack width and 4 rack units hight.
The flexible operation control panel (RC-Z3) can be mounted on the front panel of the base station or mounted in a desktop depending on the application.
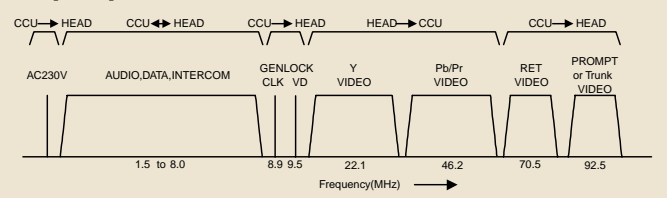
TU-Z3/CX-Z3 triax system Specification

Triax base station (TU-Z3)	Input signal	Connector type
GEN LOCK	B.B 75 Ω(loop through)	BNC
RET 1,2	VS or VBS 75 Ω(loop through)	BNC
PROMPT	VS or VBS 75 Ω(loop through)	BNC
DIGITAL RET 1,2	D1(Active through) Specify in order	BNC
INTERCOM	4 Wire or 2Wire	D-sub 15pin
PGM		D-sub 15pin
R/G TALLY		D-sub 15pin
REMOTE 1	(switchable)	4pin, D-sub 25pin
REMOTE 2		4pin

Triax base station (TU-Z3)	Output signal	Connector type
ENCR	VBS	BNC(x3)
Pr or R, Y or G, Pb or B	VS(switchable)	BNC
DIGITAL OUT	D1 (option)	BNC(x2)
PIX(R,G,B,ENCR)	VS or VBS	BNC
WF OUT(R,G,B,ENCR)	VS or VBS	BNC
MIC OUT 1,2		XLR-3pin
INTERCOM	4 Wire or 2Wire	D-sub 15pin
R/G TALLY	Contact	XLR-3pin
W/N CONTROL	Contact	XLR-3pin
TRUNK	VBS Specify in order	BNC

INTERCOM HEAD SET Dynamic MIC XLR-5pin(Female)

Triaxial Cable Cable type	Diameter (mm)	Maker	Maximum cable length(m) W/ PROMPT	W/O PROMPT
4.8/1.0 EFTXF	8.6	FUJIKURA	930	1100
9.6/2.2 EFTXF	14.5	FUJIKURA	1500	1900
9267	9.1	BELDEN	720	910
9232	13.2	BELDEN	1200	1500
1.0S/4.5S	8.5	NK NETWORKS	740	920
1.4S/6.6S	11.0	NK NETWORKS	1100	1400

Frequency allocation

CCU→HEAD	CCU↔HEAD	CCU→HEAD	HEAD→CCU	CCU→HEAD	
AC230V	AUDIO,DATA,INTERCOM	GENLOCK CLK VD	Y VIDEO	Pb/Pr VIDEO	RET VIDEO	PROMPT or Trunk VIDEO

1.5 to 8.0   8.9 9.5   22.1   46.2   70.5   92.5

Frequency(MHz) →

Video band width(Base band)	
Y signal	10 MHz
Pb,Pr signa	5 MHz
RET, PROMPT signal	5 MHz

Power supply voltage	AC230 V 60 Hz
Power consumption	130 W approx. (AC operation, including S-3000W/GM-51 and AUX POWER OUT 50 W) TU-Z3 :25 W approx. (DC operation) CX-Z3 :33 W approx. (DC operation, includeing S-3000W/GM-51)
Ambient Temperature Operating	TU-Z3 0 to +40 °C CX-Z3 -10 to +45 °C Storage: -20 to +60 °C
Dimensions	TU-Z3 212(W) x 163(H) x 381(D) mm CX-Z3 135(W) x 196(H) x 215(D) mm
Mass	TU-Z3 9.0 kg (19.9 lb) approx CX-Z3 3.0 kg (6.6 lb) approx.

FLEXIBLE CHOICE OF REMOTE CONTROL UNITS

Camera Control Panel **RC-Z1**

Camera Control Panel **RC-Z11**

Camera Control Panel **RC-Z3**
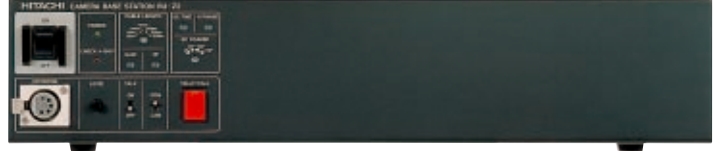
RC-Z21A (Joystick Type)

Note : RU-Z1 has to be operated with RC-Z1/Z-11 and CA-Z31, RU-Z3 has to be operated with RC-Z3/Z21A and CA-Z32.

Remote Operation Unit **RU-Z1**
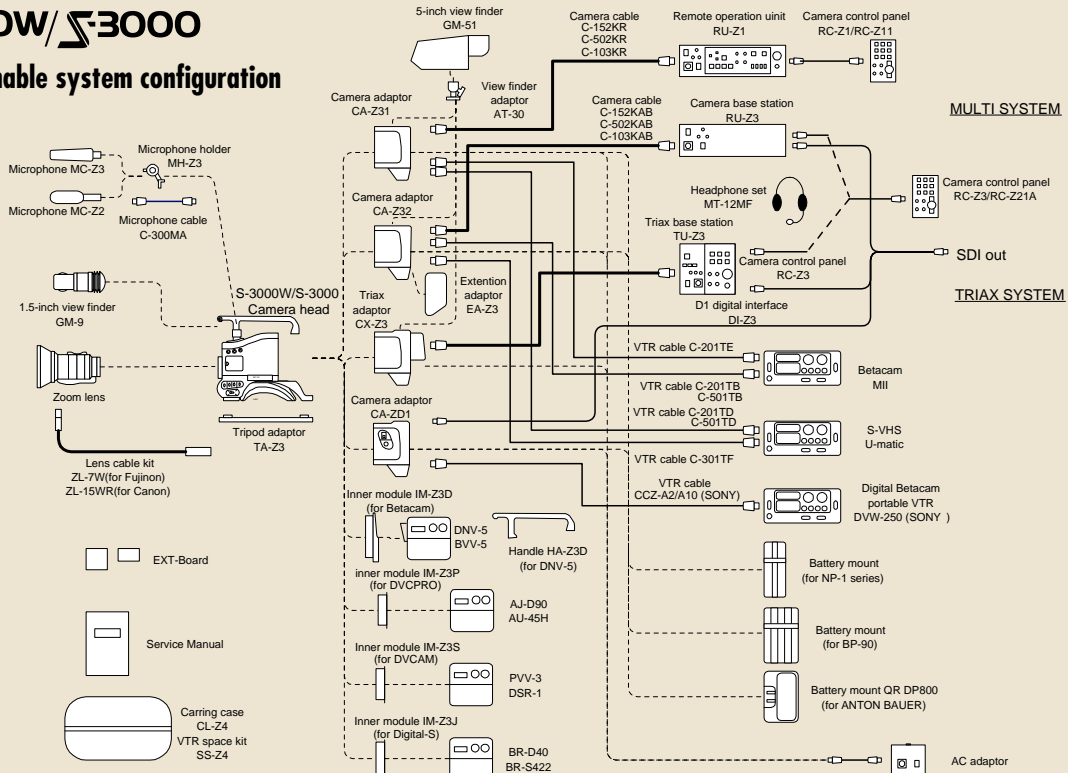
Back

Camera Base Station **RU-Z3**

Back

Suggested System Configurations.

- New 16:9/4:3 switchable studio system: RU-Z3 Camera Base Station, CA-Z32 Camera Adapter, RC-Z3/RC-Z21A Camera Control Panel, GM-51 5-inch viewfinder.
- Small scale 16:9/4:3 switchable studio system: RU-Z1 Remote Operation Unit, CA-Z31 Camera Adapter, RC-Z1/RC-Z11 Camera Control Panel, and GM-51 5-inch viewfinder.

Σ-3000W/Σ-3000

Wide switchable system configuration

5-inch view finder GM-51

Camera cable C-152KR C-502KR C-103KR

Remote operation uinit RU-Z1

Camera control panel RC-Z1/RC-Z11

View finder adaptor AT-30

Camera adaptor CA-Z31

Camera cable C-152KAB C-502KAB C-103KAB

Camera base station RU-Z3

MULTI SYSTEM

Microphone MC-Z3

Microphone holder MH-Z3

Camera adaptor CA-Z32

Camera control panel RC-Z3/RC-Z21A

Microphone MC-Z2

Microphone cable C-300MA

Headphone set MT-12MF

1.5-inch view finder GM-9

S-3000W/S-3000 Camera head

Triax adaptor CX-Z3

Extention adaptor EA-Z3

Triax base station TU-Z3

Camera control panel RC-Z3

SDI out

Zoom lens

Tripod adaptor TA-Z3

D1 digital interface DI-Z3

TRIAX SYSTEM

Lens cable kit ZL-7W(for Fujinon) ZL-15WR(for Canon)

Camera adaptor CA-ZD1

VTR cable C-201TE

Betacam MII

VTR cable C-201TB C-501TB

VTR cable C-201TD C-501TD

S-VHS U-matic

EXT-Board

Inner module IM-Z3D (for Betacam)

DNV-5 BVV-5

VTR cable C-301TF

Handle HA-Z3D (for DNV-5)

VTR cable CCZ-A2/A10 (SONY)

Digital Betacam portable VTR DVW-250 (SONY)

Service Manual

inner module IM-Z3P (for DVCPRO)

AJ-D90 AU-45H

Battery mount (for NP-1 series)

Inner module IM-Z3S (for DVCAM)

PVV-3 DSR-1

Battery mount (for BP-90)

Carring case CL-Z4 VTR space kit SS-Z4

Inner module IM-Z3J (for Digital-S)

BR-D40 BR-S422

Battery mount QR DP800 (for ANTON BAUER)

AC adaptor

ACCESSARIES

CA-Z31
Camera adaptor for RU-Z1

CA-Z32
Camera adaptor for RU-Z2

EA-Z3
Extension adaptor for CA-Z32

IM-Z3D
Inner module for Betacam

HA-Z3D with IM-Z3D
Handle for DNV-5

IM-Z3P/IM-Z3S/IM-Z3J
Inner module

QR DP800
Battery mount for ANTON BAUER

MC-Z2
Microphone

MC-Z3
Microphone

MH-Z3
Microphone holder

C-300MA
Microphone cable

GM-9
1.5-inch view finder

GM-51
5-inch view finder

AT-30
View finder adaptor for GM-51

MT-12MF
Headset

TA-Z3
Tripod adaptor

C-502KAB/C-152KAB/C-103KAB
Camera cable

DI-Z3
D1 Digital interface

A20 X 8.6BRM
Zoom lens

YJ19 X 9BKRS
Zoom lens

Docks to a Wide Variety of VTR's.

Optional adapters and inner modules offer flexible docking solutions for popular video tape recorders.

Compatible models.

Sony : Betacam SX (DNV-5), Betacam SP (BVV-5), DVCAM (DSR-1), Betacam PRO (PVV-3)
Panasonic : DVCPRO (AJ-D90), MII Promind (AU-45H)
JVC : Digital-S (BR-D40), S-VHS (BR-S422)

Docks to a Wide Variety of VTR's

Control Item List					
Control items Units	RU-Z1	RC-Z1/ Z11	RU-Z2/ RU-Z3	RC-Z3/ Z21A	TU-Z3
SC Phase, H Phase adjustment	O	O	O		O
Cable length adjustment	O		O		Auto
Tally / Call	O		O		O
Intercom Talk ON / OFF			O		O
Intercom Level control	O		O		O
Intercom COMMON / CAMERA selection	O		O		O
MONITOR OUT AUX / CAM selection	O				
R GAIN, B GAIN control	O	O		O	
R BLACK, B BLACK control	O	O		O	
IRIS control	O	O		O	
MASTER BLACK control	O	O		O	
Scene files selection (4 files & 1 PRESET file)	O	O		O	
BAR / CAM selection	O	O		O	
A. WHT / A. BLK	O	O		O	
FUNCTION	O	O		O	
DTL selection	O	O		O	
WHITE BALANCE mode selection	O	O		O	
GAIN selection	O	O		O	
IRIS mode selection	O	O		O	
CONTROL (OFF / LOCK /ON) selection	O	O		O	
SHUTTER ON / OFF	O	O		O	
CONTRAST ON / OFF				O	
ULTRA GAIN ON / OFF				O	
CHECK	O	O			
Lens extender indicator				O	

SPECIFICATIONS : S-3000W/S-3000 Camera Head

Color System	PAL
Optical system	2/3" F1.4 prism
Pickup system	RGB 3-chip system
Imaging device	CCD equivalent to 2/3" tube (with micro lenses)
Picture elements (pixels)	S-3000W Total 1008(H) - 591(V) Effective 936(H) - 575(V) S-3000 Total 1038(H) - 594(V) Effective 980(H) - 582(V)
Sync system	Internal or genlock
Horizontal resolution	S-3000W 750 TV lines (4 : 3), 750 TV lines (16 : 9) S-3000 900 TV lines (4 : 3)
Signal-to-noise ratio	61dB(Typ). 63dB (DNR ON) (Gamma : 1, DTL :OFF, Gain : 0dB, Y OUT)
Standard sensitivity	F11 +1/2 (S-3000W), F11 (S-3000) at 2000 lx
Minimum sensitivity	0.35 lx (S-3000W), 0.5 lx (S-3000) F1.4 (Gain : +24dB, ULTRA-Gain : ON)
Gamma correction	0.35 to 1.0 (ON/OFF switchable)
Geometric distortion	All zones : less than measurement limit (excluding lens)
Registration	All zones : less than 0.05% (excluding lens)
Optical filters	3200K, 5600K +1/16ND, 5600K, 5600k +1/64ND
Vertical contour correction	2H
Lens mount	Bayonet (Backfocus : 48mm in air)
Gain selector	Low : 0dB/−3dB mid : +6/ +9 / +12dB High : +12/ +18 / +24dB Remote mode : −3 to +24dB (in 3dB steps)
DTL controls	DTL LEVEL, DTL FREQ, FLESH TONE, LEVEL DEP, CRISP, H-V BAL, SOFT DTL, etc.
Scene file	4 scene files Items: gain, DTL, masking, gamma, electronic shutter, auto iris mode, contrast, etc.
Setup card file	4 (scenes files and other menu items)
ULTRA-Gain function	Gain is increased by approx. +12dB by switching the read-out mode of CCD (Horizontal resolution is lowered)
Electronic shutter	Preset mode 1/60, 1/250, 1/500, 1/1000, 1/2000 CC FRAME Lock SCAN mode : approx 1/51.5 to approx. 1/2000 (in 1H steps); Automatic Electronic Shutter (AES) mode : (up to 4 lens-stops)
Input signals	1.Genlock input (BNC or multi-connector) : VBS 1.0Vp-p (±3dB or black burst/75Ω (sync 0.3±0.1Vp-p, burst : 0.3±0.1Vp-p) 2.Viewfinder AUX input (multi-connector) : VBS 1.0Vp-p ±3dB / 75Ω
Output signals	1.Video output(BNC) VBS 1.0Vp-p / 75Ω 2.VTR output 1(multi-connector) VBS 1.0Vp-p / 75Ω 3.VTR output 2(multi-connector) a: Composite signal: VBS 1.0Vp-p / 75Ω b: Y/C output : Y : 1.0Vp-p / 75Ω, C : 0.286Vp-p (burst), c: RGB output : RGB : 0.714Vp-p / 75Ω d: Component output: VS : 1.0Vp-p / 75Ω R-Y, B-Y : 0.7Vp-p / 75Ω (BETACAM, 75% color bars), 0.525Vp-p / 75Ω (MII, 75% color bars) 4.Monitor output (BNC) VBS 1.0Vp-p / 75Ω, with charactors 5.Audio output (multi-connector) - 20dBm or - 60dBm

|	
Ambient temperature	Operating: -10 to +45°C Storage: -10 to +60°C
Rated power supply	12 V DC
Power consumption	16W approx. (including GM-9, excluding camera adapter)
Dimensions	125(W)×268(H)×160(D)mm (excluding camera adapter)
Mass	3.2kg (7.1 lb) approx. (including GM-9 and excluding lens and camera adapter)

SPECIFICATIONS : GM-9 1.5-inch Viewfinder

Input signal	VS 1.0Vp-p, sync negative
CRT	1.5" B/W
Resolution	600 TV lines approx. (horizontal center)
Aspect ratio	16:9 / 4:3
LED display	TALLY, BATT, SAVE, (!) Warning indicator : out of standard application
Controls	Brightness, Peaking, Contrast, Front tally ON/OFF
Power supply	9V DC
Power consumption	1.4W approx.
Mass	0.6kg (1.3 lb) approx.

SPECIFICATIONS : RU-Z1 and RU-Z3

		RU-Z1	RU-Z3
OUTPUT signals	LINE 1 / 2	VBS 1.0Vp-p/75Ω	
	MON	VBS 1.0Vp-p/75Ω	
	RGB R-Y, Y, B-Y	V : 0.7Vp-p VS1.0Vp-p/75Ω	
	AUDIO output	0dB, 600Ω, one system	0dB, 600Ω, Mic 1 & Mic 2
INPUT signals	PROMPT	−	VBS 1.0Vp-p/75Ω or loop-through
	AUX VIDEO	VBS 1.0Vp-p/75Ω or loop-through	Aux 1 & Aux 2, Rating is same as RU-Z1
	GENLOCK	BB 0.6Vp-p/75Ω or loop-through	
	TALLY	Closure or Voltage(24V)	
	INTERCOM	XLR-5pin Corresponding to dynamic mic	
	RS-232C	D-SUB 25pin	−
Power requirements		230V AC, 60Hz	230V AC, 60Hz
Power consumption		52W approx.	125W approx.
Maximum cable length		300m (980 ft approx.)	
Ambient temperature		5 to 40°C (41 to 104°F)	
Dimension		482(W) x 88(H) x 300(D)mm (19.0 x 3.5 x 11.8 in)	
Mass		7.6kg(16.8 lb) approx.	9.5kg(19.9 lb) approx.

Dimensions

unit : mm
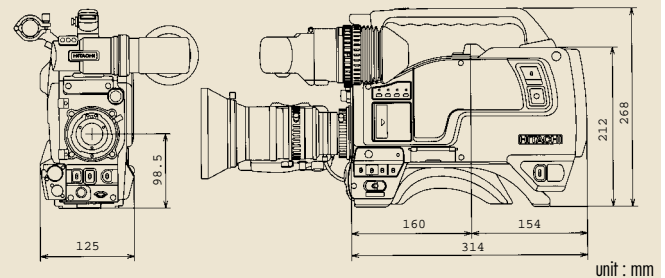
CAUTION : To ensure safe operation, please read the instruction manual before using this product.

These Specifications are subject to change without notice.

CERTIFICATE No.
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ISO 9001/BS 5750Pt1
EN 29001/JIS Z9901

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