

Sanyo DSR-2016 Instruction Manual

Digital video recorder

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INSTRUCTION MANUAL Digital Video Recorder

About this manual

Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference.

DSR-2016





Related Manuals for Sanyo DSR-2016

DVR Sanyo DSR-2016 Specifications

16ch mpeg-4 dvr (2 pages)

DVR Sanyo DSR-2108 Instruction Manual

Sanyo dvr user manual (92 pages)

DVR Sanyo DSR-2004 Instruction Manual

Digital video recorder (64 pages)

DVR Sanyo DSR-2004 Specifications

4ch mpeg-4 digital video recorder with built-in multiplexer (2 pages)

DVR Sanyo DSR-M800 Instruction Manual

Sanyo instruction manual digital video recorder dsr-m800 (50 pages)

DVR Sanyo DSR-M814 Service Manual Addendum

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DVR Sanyo DSR - 300 Instruction Manual

Digital video recorder (136 pages)

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DVR Sanyo DSR-3716 Instruction Manual

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Digital video recorder (18 pages)

DVR Sanyo DSR-5016 Instruction Manual

Digital video recorder with multiplexer function (227 pages)

DVR Sanyo DSR-5016P Quick Manual

Digital video recorder (28 pages)

DVR Sanyo DSR-3506 Instruction Manual

With multiplexer function (110 pages)

Summary of Contents for Sanyo DSR-2016

<u>Page 1</u> INSTRUCTION MANUAL Digital Video Recorder with Multiplexer Function About this manual Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference. DSR-2016...

Page 2: Table Of Contents

Setting the RS-485 termination switch (SANYO SSP side)....... 11 Monitoring the camera videos.

Page 3: Safety Precautions

INTO BEAM. Declaration of Conformity Model Number: DSR-2016 Trade Name: SANYO

Responsible party: SANYO FISHER COMPANY Address: 21605 Plummer Street, Chatsworth, California 91311 Telephone No.: (818) 998-7322 • This device complies with Part 15 of the FCC Rules.

Page 4: These Precautions Must Be Followed For Safety Reasons

Safety precautions These precautions must be followed for safety reasons. b Do not use if the unit emits smoke, strange sounds are heard or odor is emitted. Continued use may cause electrocution and/ or fire. Immediately remove the power plug from the outlet.

<u>Page 5</u> Safety precautions Warning b Do not use during thunder/thunder storms. Do not use during thunder/thunder storms. Never touch the connection cable during thunder/thunder storms. This may cause electrocution. b Do not place in an unstable position. • Doing so may cause accidents and/or breakdowns through falling or toppling.

<u>Page 6</u> Safety precautions b Cleaning the internal components Consult the dealership where this unit was purchased or factory shop for cleaning internal components. Leaving the unit unused for long periods of time may attract dust to the internal components, which in turn may cause fire and/or breakdowns.

Page 7: Follow The Points Outlined Below For Proper Use

This may cause exterior damage or wear the paint off. b Copyright information • This manual and software are copyrighted to SANYO Electric Co., Ltd. • Microsoft, Windows and Internet Explorer are trademarks or registered trademarks of Microsoft USA in the USA and in other countries.

Page 8: Main Features

Main Features • Real time monitoring at 800 IPS (PAL) / 960 IPS (NTSC) • Maximum recording speed at 200 IPS (PAL) / 240 IPS (NTSC) • 4ch audio recording • Remote surveillance via network • VGA video output • Comes with IR remote control unit and DVR utility software •...

Page 9: Mounting The Hard Disk

Mounting the hard disk A hard disk may not be installed at the time of purchase. If no hard disk is installed, consult the dealership where the unit was purchased for purchase and installation. Make sure the unit is turned off before installing the hard disk. Unfasten the cover of the unit.

Page 10: Names And Functions Of Parts

Names and functions of parts Front panel 1 Power button and indicator (2 USB terminal (USB) (Exclusively for 2.0) (P26) To save video, connect a USB memory. 3 CD drive To save video, insert a CD-R/RW. To open and close the insert tray, open the panel and press the button.

Page 11: Names Of Each Part And Connections

Names of each part and connections Rear panel Basic connections • Do not turn this unit on before all the connections are complete. Read the instruction manual of each unit carefully. • Make sure each unit is connected properly as faulty connection may result in the unit emitting smoke and/or being damaged. •...

Page 12: Network Connection (Lan)

Names of each part and connections Network connection (LAN) LAN connection b Using the switching hub Use a 10BASE-T/100BASE-TX CAT 5 LAN cable. When controlling the network, connect to hubs such as the switching hub using an Ethernet cable. Camera (Sold separately) Ethernet cable (Straight cable)

Page 13: Connecting To The Rs-485 Control Terminal

(P40) • Refer to the System controller's instruction manual for more information about the operation method. To connect a Sanyo PTZ camera or system controller To connect a third-party camera If a camera is connected...

Page 14: Switching The Power On / Off

Press the power button. The power indicator changes to green (running) and initialization starts. During initialization the message "INITIALIZING..." and the firmware version are displayed on a "SANYO" logo screen. Once the initialization is complete, live videos are displayed on multi-16

Page 15: Pre-Operation Preparation

Pre-operation preparation Screen display Upon turning the power on live video is displayed on the multi-16 screen. • The screen display can be hidden except for the recording screen display. (P31) b Example of multi-16 screen CH10 CH11 CH13 CH14 CH15 1 Operation display: Displayed during live video sequencing.

Page 16: A Setting The Television System And The Monitor Output

Pre-operation preparation Setting the television system and the monitor output If the television system of the camera to be connected and the type of monitor differ, live videos cannot be monitored on the normal screen. Check the specifications of the equipment to be connected and set the system changeover switch on the rear panel.

Page 17 Pre-operation preparation Press the control button (~) twice and select the "SYSTEM", press the ENTER button. The SYSTEM settings screen is displayed. DVR ID DESCRIPTION LOAD DEFAULT ADMIN PASSWORD USER PASSWORD NETWORK PASSWORD DATE FORMAT CLOCK SET RS485 SET PTZ CONTROL LANGUAGE REMOTE CONTROL ID Select "DATE FORMAT"...

Page 18: C Setting The Language (Language)

ITALIANO, ipIIXTV ìRàX, [] [] [] , POLSKI, NO VIDEO CESKY, óçhHBjIXV LRTX, Româna, Srpski, SVENSKA, [] [] NO VIDEO CH12 Setting the RS-485 termination switch (SANYO NO VIDEO CH16 SSP side) If multiple devices are connected terminator settings are necessary at both ends

Page 19: Monitoring The Camera Videos

Monitoring the camera videos Single-screen display Displays the video of the camera specified using the channel selection button (1 - 16) on single-screen. Example: Displaying camera 2 on single-screen Press "2" on the camera selection button. The video of camera 2 is displayed on single-screen. Quad-screen display Displays the 4 cameras video connected at once.

Page 20: C Multi-Screen Display

Monitoring the camera videos Multi-screen display Displays the videos of 16 or 9 cameras simultaneously. Press the MULTI button. The videos of camera 1 - 16 are displayed on a multi-16 screen. Press the MULTI button again. The screen switches to a multi-9 screen, the videos of camera 1 - 9 are displayed.

Page 21: Operating The Ptz Camera

The set speed is applied to all channels except for SANYO protocol. Set the communication speed for the SANYO protocol using RS485 SET. (P40) Point the cursor to "CHANNEL", specify the channel and set the "PROTOCOL" and "ADDRESS".

Page 22 Operating the PTZ camera b Iris/Tour/Sequence operations 1 Select "IRIS/TOUR/SEQUENCE" using the control button ($\{\|$) and press the ENTER button. 2 Adjust the aperture using the control button ($\{\|$). 3 To perform tour operations press the control button ($\{\|$), to stop tour operations press the ENTER button.

Page 23: Recording

Recording This unit allows the following recording modes. Select the recording mode, recording resolution, frame rate and video quality from "RECORD" under the MAIN MENU. (P35) The symbol on the right side of each recording mode (Ex: R) is displayed while recording is in progress. b Types of recording modes A Real time recording (R) ...

Page 24: Bcontinuous Recording

Recording CONTINUOUS recording Recording starts automatically when this unit is turned on. "C" is displayed on the screen. The connected cameras are simultaneously recorded. The recording mode can be changed using RECORDING under RECORD settings. Settings, such as image quality, can also be set. (P35) 2006/07/14 09:04:54 To stop recording, select "RECORDING"...

Page 25: Dalarm Recording

Recording ALARM recording An external sensor can be connected to each channel. Connecting an external switch to an external alarm input terminal. Camera (Sold separately) MENU AUTO MODE POWER Monitor (Sold separately) Set the following items using the control button $\{\{\}\}\sim$).

Page 26: Eschedule Recording

Recording SCHEDULE recording Adjusting the following settings using the control button ($\{|\}\sim$). • RESOLUTION • FRAME RATE • CHANNEL • QUALITY Select "RECORDING" using the control button ($\{|\}$) and select "SCHEDULE" using the control button ($\{-\}\sim$). The following settings are necessary when performing sensor detection.

Page 27 Recording b Copying a set recording schedule to other channels Copying the channel 1 schedule to channel Example 1 3 (COPY FROM) Set the channel 1 schedule and press the EXIT/ STOP button. The RECORD screen is displayed again. TIMER SET - CH1 COPY FROM COPY TO - - -...

Page 28: Playing Back Recorded Videos

Playing back recorded videos The following recorded videos searching methods are available. 2007/05/03 09:04:54 SEARCH EVENT SEARCH TIMELINE SEARCH T/D SEARCH GO FIRST GO LAST BOOKMARK b BOOKMARK (P25) Searches through the bookmarked still images or moving videos. BOOKMARK 2007-04 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29...

Page 29: Aevent Search

Playing back recorded videos EVENT SEARCH Press the SEARCH button. The menu screen is displayed. EVENT SEARCH TIMELINE SEARCH T/D SEARCH Select "EVENT SEARCH" using the control button ($\{|\}$) and press the ENTER button. The SEARCH screen is displayed. Select the date you want to search using the control button ($\{|\}$ ~) and press the ENTER button.

Page 30: Btimeline Search

Playing back recorded videos TIMELINE SEARCH Press the SEARCH button. The search menu screen is displayed. Select "TIMELINE SEARCH" using the control button ({|) and press the ENTER button. The SEARCH screen is displayed. • If recordings are available, the date is displayed in red.

Page 31: C T/D Search

Playing back recorded videos T/D SEARCH Press the SEARCH button. The search menu screen is displayed. Select "T/D SEARCH" using the control button ($\{\ |\ \}$) and press the ENTER button. The SEARCH screen is displayed. Select the date and time to be played back using the control button ($\{\ -\ \}$) and input a value using the control button ($\{\ -\ \}$).

Page 32: Gbookmark

Playing back recorded videos BOOKMARK Perform the mark operation of the desired live video. The marked event and recording list can be displayed and played back. (P26, 27) Press the SEARCH button. The menu is displayed. 2007/05/03 09:04:54 SEARCH EVENT SEARCH TIMELINE SEARCH T/D SEARCH GO FIRST...

Page 33: Copying Recorded Video

Copying recorded video Necessary video can be selected and copied to USB memory or to a CD-R/RW. Inserting recording media When performing copying operations, insert the recording media (USB memory). 1 To copy onto a USB memory Connect a USB memory to the USB terminal on the front panel.

Page 34: C Copying A Playback Video

Copying recorded video Copying a playback video The image to be copied can be selected on still and moving images. While playing back the recorded video press the MARK/COPY button at the scene to be copied. The video is paused and the BOOKMARK screen is displayed.

Page 35: Setting The Security Lock

Setting the security lock Setting a security lock locks all the operation buttons of this unit. b Setting a security lock Press the EXIT/STOP button for approximately 5 seconds. The password

entering screen is displayed. 2007/05/03 09:04:54 2006/07/14 17:25:37 EXIT/STOP PASSWORD - - - Enter the "ADMIN PASSWORD"...

Page 36: Configuration And Function Of The Menu Settings

Configuration and function of the Menu settings b LIVE settings (P31) To perform adjustments related to live videos monitoring such as sequencing settings and each camera video adjustments. LIVE SEQUENCE SEQUENCE-DWELL TIME 2 SECONDS EVENT BEEP OSD CONTRAST CHANNEL DISPLAY BRIGHTNESS CONTRAST SATURATION...

Page 37 Configuration and function of the Menu settings b Basic operations of the MAIN MENU Press the MENU button. The PASSWORD input screen is displayed. PASSWORD Input the "ADMIN PASSWORD" using the channel selection button and press the ENTER button. The MAIN MENU screen is displayed. •...

Page 38: Live Settings

LIVE settings Press the MENU button and enter the password. The MAIN MENU is displayed, select "LIVE" using the control button ($\{|\}\sim$). MAIN MENU LIVE RECORD NETWORK HDD SET LIVE SEQUENCE SEQUENCE-DWELL TIME 2 SECONDS EVENT BEEP OSD CONTRAST CHANNEL DISPLAY BRIGHTNESS CONTRAST...

Page 39: D Setting A Channel

LIVE settings Setting a CHANNEL To set the video settings on each channel. Select an item for each setting using the control button ($\{|$) and select a setting value using the control button ($\{-$). \bullet Setting a CHANNEL and the channel designation Select "CHANNEL"...

Page 40: F Setting The Mon2 (Monitor2)-Out

LIVE settings 2 Select the setting position (4 positions) using the control button (}~). 3 Select the input terminal number (1 - 16) using the control button ({|). 4 Press the ENTER button. ● Setting the VIDEO LOSS ON An alarm signal is output when the specified video input terminal receives a VIDEO LOSS occurs.

<u>Page 41</u> LIVEs ettings Setting the SEQUENCE Sets whether the output video automatically switches to the MON2 terminal. Select "SEQUENCE" using the control button ($\{|$). Set ON/OFF using the control button ($\{-$). ON: Automatically switches OFF: Does not automatically switch Press the ENTER button.

Page 42: Record Settings

RECORD settings Press the MENU button and enter the password. The MAIN MENU is displayed, select "RECORD" using the control button ($\{|\}\sim$). MAIN MENU LIVE RECORD NETWORK HDD SET RECORD RESOLUTION FULL CHANNEL FRAME RATE 1 ips QUALITY NORMAL RECORDING CONTINUOUS MOTION ZONE FULL ZONE...

Page 43: C Setting The Timer Set

RECORD settings • ALARM (P18) Recording is performed as soon as a sensor device connected to the external alarm input terminal (ALARM IN) of this unit reacts. • SCHEDULE (P19) Recording is performed daily during the set time slot set on the TIMER SET screen in the recording settings.

Page 44: System Settings

SYSTEM settings Press the MENU button and enter the password. The MAIN MENU is displayed, select "SYSTEM" using the control button ($\{|\}\sim$). MAIN MENU LIVE RECORD NETWORK HDD SET SYSTEM DVR ID DESCRIPTION LOAD DEFAULT ADMIN PASSWORD USER PASSWORD NETWORK PASSWORD DATE FORMAT MM/DD/YYYY CLOCK SET...

Page 45: D Setting An Admin Password

SYSTEM settings Setting an ADMIN PASSWORD To set a password to perform menu settings, real time recording, PTZ control, search and playback. The initial value is "1111". Memo: If no USER PASSWORD is set, no password is required when performing search and playback operations.

Page 46: E Setting The User Password

SYSTEM settings b Restoring the password input Press the MENU button, select SYSTEM and press the ENTER button. Select "ADMIN PASSWORD" using the control button ({|) and press the ENTER button. The "Current" password input screen is displayed. ADMIN PASSWORD Current: **

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Page 47: G Setting The Date Format

Refer to "Setting the clock (CLOCK SET)". (P9) Setting the RS485 SET To be set when devices, such as a system controller or a SANYO protocol camera, are connected to the RS-485 control terminal. Select "RS485 SET" using the control button ({|) and press the ENTER button.

Page 48: L Setting A Remote Control Id

SYSTEM settings Setting a REMOTE CONTROL ID Allows to set an ID number on the supplied remote control and use it as an exclusive remote control when multiple units are connected. The initial value is set to "00" and the remote control display is displayed on the monitor, remote operations are always available.

Page 49: Network Settings

NETWORK settings Press the MENU button and input the password. The MAIN MENU is displayed, select "NETWORK" using the control button ($\{|\}\sim$). MAIN MENU LIVE RECORD NETWORK HDD SET NETWORK PORT 5445 CLIENT ACCESS BANDWIDTH SAVING NETWORK TYPE 0.0.0.0 SUBNET MASK 0.0.0.0 GATEWAY 0.0.0.0...

Page 50: D Setting The Network Type

NETWORK settings Setting the NETWORK TYPE Select "NETWORK TYPE" to be connected, and set each setting. Consult the network manager for all necessary information. Select "NETWORK TYPE" using the control button ({||). Select a type using the control button ({||). Selection: DHCP, ADSL, LAN ADSL, DHCP...

Page 51: E Setting The Ddns

Setting the DDNS Register the domain name and set the DDNS server when using Sanyo's DDNS service. Select "DDNS" using the control button ($\{|$) and select "SANYO" using the control button ($\{-$). The DDNS SERVER SET menu is displayed. NETWORK PORT...

Page 52: F Setting The Send E-Mail

NETWORK settings Setting the SEND E-MAIL An E-mail can be sent to a specified IP address. Select "SEND E-MAIL" using the control button ($\{|$), select "ON" using the control button ($\{-\}$) and press the ENTER button. The SEND E-MAIL screen is displayed. SEND E-MAIL IP NOTIFICATION EVENT ALARM...

Page 53: Hdd Set Settings

HDD SET settings Press the MENU button and input the password. The MAIN MENU is displayed, select "HDD SET" using the control button ({|}~). MAIN MENU LIVE RECORD NETWORK HDD SET HDD SET OVERWRITE FORAMT AUTO DELETE AUTO DELETE DAYS 30 DAYS Setting the OVERWRITE Allows continuing recording and overwriting old videos once...

Page 54: C Setting The Auto Delete Function

HDD SET settings Setting the auto delete function Allows the user to set the storage period for the recording data. Once the storage period is expired the data is automatically deleted. Select "AUTO DELETE" using the control button ({||}) and select a setting using the control button (}~).

Page 55: Service Settings

SERVICE settings Press the MENU button and input the password. The MAIN MENU is displayed, select "SERVICE" using the control button ($\{|\}\sim$). MAIN MENU LIVE RECORD NETWORK HDD SET SERVICE SAVE SETUP TO A USB LOAD SETUP FROM A USB DISK INFO USB memory Setting the SAVE SETUP TO A USB...

Page 56: Operations Using The Network

Operations using the Network This unit can be operated from a PC screen by using the supplied network operation software "Sanyo DVR Utility 2000S". Prior to performing network operations

make the following preparations. Connection and settings • Network connection: Connect this unit and the PC using a LAN or Internet connection.

Page 57: To Uninstall The Software

Once the installation is complete, the "DVR Utility 2000S" shortcut icon is displayed on the desktop. Double-click this icon to start the software. To uninstall the software Specify "SANYO DVR Utility 2000S" in the control panel [Add or Remove Programs] and uninstall.

Page 58: Connecting To This Unit

Connecting to this unit To start this software, double-click the desktop shortcut icon (this unit following the procedure below, the camera live video is displayed. b Connecting for the first time Click the connect button on the operation panel. The connection dialog [Connect] is displayed.

Page 59: Main Screen Structure And Function Of Each Part

Main screen structure and function of each part When connected to this unit, the live video of the camera is displayed on the main screen. Video display area Displays live video or playback video. <Screen display method> Can be switched using the operation button on the screen. (P54) •...

Page 60: Function Of The Operation Panel

Main screen structure and function of each part Function of the operation panel <16 channels>: The display of the icon changes according to the selection made. 1 Scrolling connected sites (Select Site) To change the connection destination select the site name of the connection destination using the pull down menu.

Page 61: Main Screen Basic Operations

Main screen basic operations Switching the display mode of the screen Allows you to select the display mode for live and playback video. The following explanation is for when the "CH mode" is set to 16 channels. The available screens are limited when in 4 or 9 channel mode.

Page 62: B Recording Live Video

Main screen basic operations b Sequence (camera switch) display Click the sequence button on the operation panel while in single or quad-screen display. The video is displayed in sequence in the order of the channel numbers in the present selected display layout. •...

Page 63: C Freezing The Live Video

Main screen basic operations Freezing the live video Stops the live video and allows the user to view the live video as a still image. Click the still button on the operation panel. The live video changes to still video, the still button display switches to the unfreeze button.

Page 64: F Operating The Ptz Camera

Main screen basic operations Operating the PTZ camera When the PTZ camera is connected to this unit, it can be remotely operated from the PC. Sets the menu using this unit. Set the PTZ CONTROL settings on the SYSTEM screen of the menu settings of this unit. (P14) Displays the live video and specifies the camera to be operated.

Page 65: Search Mode Operations

Search mode operations When clicking [SEARCH] on the operation panel, the screen display switches to search mode. When in search mode, the display of one part on the operation panel as well as one part of the log window changes. Search and backup operations of video recorded on this unit or on the PC become available.

Page 66: A Searching And Playing Recorded Video

Search mode operations Searching and playing recorded video Video recorded on this unit or on a PC can be searched and played using the date and time. Select the search destination (DVR/PC). Select whether to search the video recorded on the DVR (this unit) or the video recorded on the PC.

Page 67: B Backing Up Dvr Recorded Video

Search mode operations Backing up DVR recorded video DVR (this unit) recorded video can be backed up on the hard disk of a PC in AVI format. Search the recorded video by following the procedure below, specify the video range to be backed up and execute a back Refer to steps 1-3 of "Searching and playing recorded video (P59)".

Page 68: Setup Menu Settings

Setup menu settings To display the "Setup" screen, click the menu button (conditions of the DVR (this unit) during connection and the network operations on this screen. Clicking menu in the [Setup Menu] window on the left of the screen displays the specified menu screen. General settings (General) Sets functions such as security functions, video data destination folder and starting automatic connection...

Page 69: B Camera Designation Settings (Site)

Setup menu settings Camera designation settings (Site) The connection information registered in the "Connect" dialog at the time of connection is displayed as a list in the "Site" list. Allows the user to add, change, delete the registered information or set a channel name. b Registering the additional DVR (Addition) Click "Addition".

Page 70: C Event Settings (Event)

Setup menu settings Event settings (Event) Sets the event management method. 1 Log Sets the destination folder and the allowable size of the event log. 2 Event Set the saving and display conditions for each event using the checkbox. • Log: Whether it saves it as an event log or not •...

Page 71: E Record Settings (Record)

Setup menu settings Record settings (Record) Sets the recording conditions while in network operations. Recorded video is saved on the hard disk of the PC. 1 Record Condition <Recording mode> Select a recording mode using the radio button. • Always: Recording is performed when the recording button on the operation panel is set to ON.

Page 72: Part Names Of The Remote Control

Part names of the remote control Batteries for the remote control are not supplied. Use two AAA batteries. REC/STOP ALARM MENU EXIT SERCH MARK LOCK COPY QUAD MULTI 1 REC/STOP button Stops and starts recording of live videos displayed on the monitor.

Page 73: Specifications

Specifications Signal method Compression method Number of pixels Live display Speed Resolution Split-screen Recording Recording speed Resolution Recording method Hard disk Video input terminal Video output terminal Audio input terminal Audio output terminal Alarm input/output terminal Network terminal Interface Front USB terminal CD-RW drive Remote control Power supply voltage...

Page 74 SANYO Electric Co., Ltd. 1AC6P1P3245-- L8HBS/WA (0607KP)