



INSTRUCTION MANUAL

Sanyo OnePak™ Environmental Housing Series

Integrated Camera/Lens/Environmental Housing Line



About this manual

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

IMPORTANT SAFEGUARDS



1. Read Instructions - All the safety and operating instructions should be read before the unit is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the unit and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only with a stand, tripod, bracket, or mount recommended by the manufacturer or sold with the product. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.


 An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. Ventilation - Openings in the enclosure, if any, are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. This unit should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
9. Power Sources - This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For units intended to operate from battery power or other sources, refer to the operating instructions.
10. Grounding or Polarization - This unit may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. Alternately, this unit may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
11. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience


- receptacles, and the point where they exit from the appliance.
12. Power Lines - An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.
13. Overloading - Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
14. Object and Liquid Entry - Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.
15. Servicing - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. Damage Requiring Service - Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power supply cord or plug is damaged.
 - b. If liquid has been spilled or objects have fallen into the unit.
 - c. If the unit has been exposed to rain or water.
 - d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
 - e. If the unit has been dropped or the cabinet has been damaged.
 - f. When the unit exhibits a distinct change in performance--this indicates a need for service.
17. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
18. Safety Check - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.
19. Coax Grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded. U.S.A. models only--Section 810 of the National Electrical Code, ANSI/NFPA No.70-1981, provides information with respect to proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
20. Lightning - For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

SAFETY PRECAUTIONS:


This label may appear on the bottom of the unit due to space limitations.


	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN!	
CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		


 The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

 The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SECURITE: En raison de limitation de place, cette étiquette peut être placée sur le dessous de l'appareil.


	ATTENTION RISQUE D'ÉLECTROCUTION. NE PAS OUVRIR	
DANGER: POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, NE PAS OUVRIR LE BOÎTIER. IL N'Y A PAS DE PIÈCES REMPLAÇABLES À L'INTÉRIEUR. POUR TOUTE RÉVISION, S'ADRESSER À UN TECHNICIEN SPÉCIALISÉ.		


 L'éclair fléché dans un triangle équilatéral, avertit l'utilisateur de la présence d'une "tension dangereuse" non isolée à l'intérieur de l'appareil et d'une valeur suffisante pour constituer un risque d'électrocution.

 Le point d'exclamation contenu dans un triangle équilatéral, avertit l'utilisateur de la présence, dans la documentation qui accompagne l'appareil, de consignes d'utilisation et de maintenance importantes.

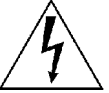

SICHERHEITSVORKEHRUNGEN: Aus Platzgründen kann diese Warnung auf der Unterseite des Gerätes angebracht sein.


	VORSICHT STROMSCHLAGEGFAHR! BITTE NICHT ÖFFNEN!	
VORSICHT: UM EINEN ELEKTRISCHEN SCHLAG ZU VERMEIDEN, ABDECKUNG NICHT ENTFERNEN. WARTUNGEN ALLER ART QUALIFIZIERTEM PERSONAL ÜBERLASSEN.		


 Das Blitzsymbol im gleichseitigen Dreieck soll den Benutzer auf nicht isolierte "Hochspannung" im Gehäuse aufmerksam machen, die eventuell stark genug ist, um einen elektrischen Schlag zu verursachen.

 Das Ausrufezeichen im gleichseitigen Dreieck soll den Benutzer auf wichtige Bedienungs- und Wartungsanleitungen in der dem Gerät beigefügten Literatur aufmerksam machen.

PRECAUCIONES DE SEGURIDAD: Debido a limitaciones de espacio, esta etiqueta puede aparecer en la parte inferior de la unidad.

	PRECAUCION RIESGO DE CHOQUE ELECTRICO. ¡NO ABRIR!	
PRECAUCION: PARA REDUCIR EL RIESGO DE CHOQUE ELÉCTRICO, FAVOR NO ABRIR LA CUBIERTA. ESTE EQUIPO NO CONSTA DE PIEZAS O PARTES QUE REQUIEREN SERVICIO O MANTENIMIENTO. PARA REPARACIONES FAVOR REFERIRSE A UN TÉCNICO CALIFICADO.		

 El símbolo representado por un relámpago con punta de flecha dentro de un triángulo equilátero, se muestra con el objetivo de alertar al usuario que existen "voltajes peligrosos" sin aislamiento, dentro de la cubierta de la unidad. Dichos voltajes pueden ser de tal magnitud que constituyen un riesgo de choque eléctrico a personas.

 El símbolo de exclamación dentro de un triángulo equilátero, se muestra con el objetivo de alertar al usuario de que instrucciones de operación y mantenimiento importantes acompañan al equipo.

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I UNPACKING

Unpack carefully. This is an electromechanical device and should be handled carefully.

BE SURE TO REMOVE THE FOAM PACKING FILLER INSIDE THE HOUSING BEFORE APPLYING POWER TO THE UNIT.

Check to ensure that the following items are included:

- Feed-through mount.
- Housing/camera/lens assembly.
- Instruction booklet packet.
- Hardware kit.

If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, contact Sanyo.

The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

2 SERVICE

If the unit ever needs repair service or parts, the customer should contact Sanyo Technical Support 1-(888)-66SANYO.

Sanyo OnePak™ Environmental Housing Series

3 DESCRIPTION

Integrated Camera/Lens/Environmental Housing Line

HIGHLIGHTS:

- Integrated Camera, Varifocal Lens, and Cylindrical Environmental Housing Package
- Packages Include Feed-through Wall Mount and 5 ft of Cabling
- Black & White, Color, or Day/Night Models
- 2.8-12 mm, and 5.0-50 mm Lenses
- Indoor and Outdoor Models
- Outdoor Units Include Heater, Blower and Sunshield
- Standard and High Resolution Models Available
- Pre-wired for Plug & Play for Easy Installation
- NEMA 4 and IP65 Weatherproofing Standards

ELECTRICAL SPECIFICATIONS:

Imager: 1/3" Format, Interline Transfer CCD

Video Output: 1.0 V p-p, 75 ohms.

White Balance: VSE-P235X, VSE-P236X, VSE-P245X, VSE-P246X Series: Auto-sensing

Synchronization: Line Lock

HORIZONTAL RESOLUTION, MINIMUM SCENE ILLUMINATION, BLC, AND S/N:

Model	Horizontal Resolution	Min Scene Illumination	Back Light Compensation	S/N
VSE-P235x Series	330 TVL	0.5 Lux @ F1.2	Multi Zone	>48 dB
VSE-P236x Series	520 TVL	0.5 Lux @ F1.2	Weighted Multi Zone	>50 dB
VSE-P246x Series	520 TVL	0.6 Lux @ F 1.2 Color Mode 0.03 Lux @ F 1.2 B&W Mode	Weighted Multi Zone	>48 dB

LENS TYPE, RANGE, AND APERTURE:

Model	Type	Range	Aperture
VSE-P2xx1 Series	DC Auto Iris	2.8 to 12.0 mm	F1.4 ~ 360
VSE-P2xx2 Series	DC Auto Iris	5.0 to 50 mm	F1.4 ~ 185

VOLTAGE AND POWER RATINGS:

Model	Voltage	Power (Indoor Models)	Power (Outdoor Models)
Color	24 VAC, 60 Hz	4.0 W	29 W
Day/Night	24 VAC, 60 Hz	N/A	29 W

CONNECTORS:

Video Out: 5 ft. (1.5 m) Coaxial Cable with Female BNC Connector

Power: 18 AWG, 3 Conductor, 5 ft. (1.5 m) Wiring Harness with Flying Leads

MECHANICAL SPECIFICATIONS:

Window: 0.12 in (3 mm) thick UV-stabilized polycarbonate

Housing Mounting: Four (4) available 1/4-20 tapped holes. Only one set of two is required for mounting.

Construction: Aluminum cover, aluminum base, aluminum mounting foot, polycarbonate faceplate, glass reinforced polycarbonate end caps, neoprene gasket, ethylene propylene seal, and all stainless steel hardware.

Weight (approx):

VSE-P23xx Series Indoor: 5.7 lbs. (2.57 kg)

VSE-P23xx Series Outdoor: 6.5 lbs. (2.97 kg)

VSE-P24xx Series Outdoor: 6.5 lbs. (2.97 kg)

Feed-through Mounts:

Max Load: 20 lbs. (9 kg)

Size: Indoor packages 7in.(18cm) Outdoor packages 12in. (30cm)

Approx. Weight 0.9 lbs (0.4 kg)

Housing Finish: Gray

ENVIRONMENTAL & SAFETY SPECIFICATIONS:

Temperature: At external temperature of -40 °F to 122 °F (-40 °C to 50 °C) maintains internal temperatures between -4 °F to 131°F (-20 °C and 55 °C) with heater/blower.

Salt Atmosphere: MIL-STD-810E, Method 509, Procedure I.

Enclosure Protection: IP65, Designed to meet NEMA 4.

EMC Requirements: FCC Class B

Safety: UL, cUL

4 PARTS LIST - (LOCATE YOUR PARTICULAR MODEL)**INDOOR COLOR MODELS**

Model	Description	Camera	Lens	Housing	Mount
VSE-P2351A	330TVL Color Camera (VCC-3954), 2.8-12mm AI Vari-focal Lens, 3 1/2" x 11" Cylindrical Housing, Feed-thru Wall Mount, Pre-cabled, 24VAC, Indoor	VCC-3954	SVCL-CS2812VA	VSE-2200	MTS-2000S
VSE-P2361A	520TVL Color Camera (VCC-6584), 2.8-12mm AI Vari-focal Lens, 3 1/2" x 11" Cylindrical Housing, Feed-thru Wall Mount, Pre-cabled, 24VAC, Indoor	VCC-6584	SVCL-CS2812VA	VSE-2200	MTS-2000S

OUTDOOR COLOR MODELS

Model	Description	Camera	Lens	Housing	Mount
VSE-P2351HBSA	330TVL Color Camera (VCC-3954), 2.8-12mm AI Vari-focal Lens, 3 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-3954	SVCL-CS2812VA	VSE-2300HBS	MTS-2000
VSE-P2352HBSA	330TVL Color Camera (VCC-3954), 5.0-50mm AI Vari-focal Lens, 3 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-3954	SVCL-CS550VA	VSE-2300HBS	MTS-2000
VSE-P2361HBSA	520TVL Color Camera (VCC-6584), 2.8-12mm AI Vari-focal Lens, 3 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-6584	SVCL-CS2812VA	VSE-2300HBS	MTS-2000
VSE-P2362HBSA	520TVL Color Camera (VCC-6584), 5.0-50mm AI Vari-focal Lens, 3 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-6584	SVCL-CS550VA	VSE-2300HBS	MTS-2000

OUTDOOR DAY/NIGHT MODELS

Model	Description	Camera	Lens	Housing	Mount
VSE-P2461HBSA	520TVL Day/Night Camera (VCC-4594), 2.8-12mm AI Vari-focal Lens, 4 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-4594	SVCL-CS2812VA	VSE-2400HBS	MTS-2000
VSE-P2462HBSA	520TVL Day/Night Camera (VCC-4594), 5.0-50mm AI Vari-focal Lens, 4 1/2" x 16" Cylindrical Housing, Feed-thru Wall Mount, Heater, Blower, Sunshield, Pre-cabled, 24VAC, outdoor	VCC-4594	SVCL-CS550VA	VSE-2400HBS	MTS-2000

CALL FACTORY FOR OTHER CONFIGURATIONS.

5 INSTALLATION

Attention: This installation should be made by qualified service personnel and conform to the National Electrical Code and applicable local codes.

5.1 Operating Voltage

Recommended operating voltage is 24 V AC, 60 Hz.

5.2 Preparing the Unit

Remove the mount and housing assembly from the carton.

5.3 Mount

Prepare and secure the mount to the wall or mounting surface as described in the Mounts Instruction Manual included in the installation document packet.

5.4 Housing

Feed the cabling from the housing foot through the mount. Additional cables such as those used for RS-232 connections can be fed through the back fittings. Attach the housing to the mount using the screws and washers provided in the hardware kit. For additional information, refer to the

Wall Mount Instruction Manual and Housing Instruction Manual.

5.5 Line Power and Video Signal Connection

The external video coax cable is equipped with a BNC connector to accept video signal. Route and connect video cable to the BNC connector. The external power cable will be provided to allow for necessary stripping/preparation by the installer. For additional information, refer to the Installation manuals included in the Installation document packet.

5.6 Camera/Lens Adjustment

The camera and lens come factory configured and ready for operation. If custom setup is required, refer to the camera Installation Instructions included in the Instruction Booklet Packet.

5.7 Sunshield

Sunshields are provided with the outdoor packages. Refer to the Sunshield Installation Manual for information.

**SANYO INDUSTRIAL VIDEO
HOUSINGS OR INTEGRATED CAMERA/LENS/HOUSING PACKAGES**

OBLIGATIONS

In order to obtain warranty service, the product must be delivered to and picked up from an Authorized Sanyo Service Center at the user's expense, unless specifically stated otherwise in this warranty. The names and addresses of Authorized Sanyo Service Centers may be obtained by calling the toll-free number listed below.

For product operation, authorized service center referral, service assistance or problem resolution, call

CUSTOMER INFORMATION 1- 800- 421- 5013

Weekdays 8: 30 AM – 5: 00 PM Pacific Time

For accessories and/ or parts, call

PARTS ORDER INFORMATION 1- 800- 726- 9662

Weekdays 8: 30 AM – 5: 00 PM Pacific Time

THIS WARRANTY IS VALID ONLY ON SANYO PRODUCTS PURCHASED OR RENTED IN THE UNITED STATES OF AMERICA, EXCLUDING ALL U. S. TERRITORIES AND PROTECTORATES. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL RETAIL PURCHASER OR END USER. THE ORIGINAL DATED BILL OF SALE, SALES SLIP OR RENTAL AGREEMENT MUST BE SUBMITTED TO THE AUTHORIZED SANYO SERVICE CENTER AT THE TIME WARRANTY SERVICE IS REQUESTED.

Subject to the OBLIGATIONS above and EXCLUSIONS below, SANYO Fisher Company warrants this SANYO product against defects in materials and workmanship for the periods specified below. SFC will repair or replace (at its option) the product or any of its parts which fail to conform to this warranty. The warranty period commences on the date the product was first purchased or rented at retail.

LABOR	PARTS
3 YEARS	3 YEARS

EXCLUSIONS

This warranty does not cover (A) the adjustment of customer- operated controls as explained in the appropriate model's instruction manual, or (B) the repair of any product whose serial number has been altered, defaced or removed.

This warranty shall not apply to the cabinet or cosmetic parts, batteries or routine maintenance.

This warranty does not apply to uncrating, setup, installation, removal of the product for repair or reinstallation of the product after repair.

This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of SFC including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage, fire, flood or other Acts of God, or normal wear and tear.

The foregoing is in lieu of all other express warranties and SFC does not assume or authorize any party to assume for it any other obligation or liability.

SFC DISCLAIMS ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WITH REGARD TO THIS PRODUCT (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS). IN NO EVENT SHALL SFC BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE OWNERSHIP OR USE OF THIS PRODUCT OR FOR ANY DELAY IN THE PERFORMANCE OF ITS OBLIGATIONS UNDER THIS WARRANTY DUE TO CAUSES BEYOND ITS CONTROL. SFC'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR OWNERSHIP OF THIS PRODUCT INCLUDING WARRANTOR'S NEGLIGENCE, OR ALLEGED DAMAGED OR DEFECTIVE GOODS, WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT.

ATTENTION

For your protection in the event of theft or loss of this product, please fill in the information below for you own personal records.

Model No _____ **Serial No.** _____

(Located on back or bottom side of unit.)

Date of Purchase _____ **Purchase Price** _____

Where Purchased _____



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Tel: (818) 998-7322
Fax: (818) 717-2716

Technical Support: (888) 66SANYO