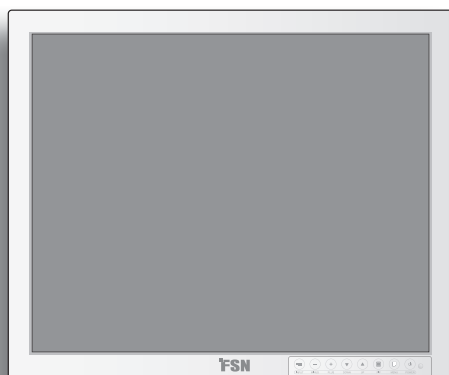




Medical Technologies



Medical Display

FS-Y1901D

User's Guide

Before connecting, operating or adjusting this product, please read this instruction booklet carefully and completely.

Table of Contents

Introduction.	3
Symbol Definitions	4
Safety Instructions.	6
Caution.	8
FCC Information	10
Parts.	14
Connectors, Mechanical Drawing	15
Controls	16
On Screen Display (OSD)	18
Standard Signal Tables	28
Signal Connector Pin Assignments	29
General Specification	32
Cleaning Instructions.	33
Fiber Receiver Installation	35
Contacts	36

The specifications and information in this document are subject to change without notice.

Overview



FS-Y1901D

This product from FSN Medical Technologies is a high-end surgical display monitor designed for advanced digital OR applications. This medical display is uniquely equipped to handle tasks in the demanding operating room environment. This unit features LED backlight technology.



















We have implemented methods to fine-tune the properties of FSN displays. Distinct color space settings have been calibrated to well-known surgical color preferences, providing the user with the ideal surgical visualization system. Features include:







- Rapid signal detection, robust mode tables
- Artifact-free HD images
- Fanless - sterile field compatible
- Calibrated to clinical color
- Image pan, zoom, freeze, picture-in-picture

FSN Medical Technologies has solutions for managing your operating room video signals. Our products are engineered and built for compatibility with other highly specialized surgical and diagnostic equipment used in surgical suites, operating rooms, emergency rooms, and procedural facilities.

Symbol Definitions

The following symbols appear on the product, its labeling, or the product packing. Each symbol carries a special definition, as defined below:

	Dangerous : High Voltage		Power adapter
	Direct Current		Indicates equipotential earth ground
	Indicates protective earth ground		Indicates top-bottom direction
	DC Power control switch		Fragile
	Do not get wet		Maximum Stacking
	Consult the operating instructions.		Indicates the manufacturer
	Indicates the manufacturing date		Authorized representative in the European community
	Serial Number		Humidity limitation
	Temperature limitation		Atmospheric pressure limitation

	Indicates proof of conformity to applicable European Economic Community Council directives and to harmonized standards published in the official journal of the European Communities.
	Medical Equipment is in accordance with UL 60601-1 and CAN/CSA C22.2 No. 601.1 in regards to electric shock, fire hazards, and mechanical hazard.
	Tested to comply with FCC Class B standard.
	Indicates the display is approved according to the CCC regulations.
	China RoHS labels.
	This symbol indicates that the waste of electronic equipment must not be disposed as unsorted municipal waste and must be collected separately. Please contact the manufacturer or other authorized disposal company to decommission your equipment.

Language: English

Note: A printed copy of the manual in English is provided with the product. Users within EU member states, please contact local distributor for other languages or refer to the CD manual enclosed with the product. This applies to EU member states where the product has been purchased through authorized channels.

Safety Instructions

On Safety

1. Before connecting the AC power cord to the DC adapter outlet make sure the voltage designation of the DC adapter corresponds to the local electrical supply.
2. Never insert anything metallic into the cabinet openings of the medical LCD monitor. Doing so may create the danger of electric shock.
3. To reduce the risk of electric shock, do not remove cover. No user-serviceable parts inside. Only a qualified technician should open the case of the medical LCD monitor.
4. Never use your medical LCD monitor if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.
5. Be sure to hold the plug, not the cord, when disconnecting the medical LCD monitor power cord from an electric socket.
6. Unplug your medical LCD monitor power cord when it is going to be left unused for an extended period of time.
7. Unplug your medical LCD monitor power cord from the AC outlet before any service.
8. If your medical LCD monitor does not operate normally, in particular, if there are any unusual sounds or smells coming from it, unplug it immediately and contact an authorized dealer or service center.
9. Please contact the manufacturer if the set should be installed in an inaccessible area.

Warning: Do not touch input or output connectors and the patient simultaneously.

Warning: This medical LCD monitor is intended for connection to input/output signals and other connectors that comply with relevant IEC standard (e.g., IEC60950 for IT equipment and IEC60601 series for medical electrical equipment). In addition, all such combination-system shall comply with the standard IEC 60601-1-1 or clause 16 of the 3 Ed. of IEC 60601-1, respectively, safety requirements for medical electrical systems. Any person who has formed a combination-system is responsible for the system to comply with the requirements of IEC 60601-1-1 or clause 16 of the 3 Ed. of IEC 60601-1, respectively. If in doubt, contact qualified technician or your local representative.

Warning: To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth. Power supply (AC/DC Adapter) is specified as a part of the LCD Color Display. Do not position equipment so that it is difficult to disconnect the power cord plug from the appliance inlet.

Warning: Do not modify this equipment without authorization of the manufacturer.

On installation

1. Openings in the medical LCD monitor cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. If you put the medical LCD monitor in a bookcase or some other enclosed space, be sure to provide adequate ventilation.
2. Put your medical LCD monitor in a location with low humidity and a minimum of dust.
3. Do not expose the medical LCD monitor to rain or use it near water (in kitchens, near swimming pools, etc.). If the medical LCD monitor accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the medical LCD monitor with a damp cloth if necessary, but be sure to unplug the medical LCD monitor first.
4. Place your medical LCD monitor near an easily accessible AC outlet.
5. High temperature can cause problems. Don't use your medical LCD monitor in direct sunlight and keep it away from heaters, stoves, fireplaces, and sources of heat.
6. Don't place your medical LCD Monitor on an unstable stand, Medical LCD monitor may malfunction or fall.
7. This medical LCD monitor should not topple over when tilted at a 5° angle, in any position, during NORMAL USE, excluding transport.
8. In the position specified for transport, medical LCD monitor shall not overbalance when tilted at a 10 degree angle.
9. When carrying this product, please use both handles (if included) on the left and right side of the product, and carry using two people. If you want the product to be installed in another place, please call your service center.
10. Do not use other cables or accessories that are not provided.
11. Do not lay this monitor on the other equipment.

Environmental Conditions for Operation and Storage

Temperature range within 0°C to 40°C (operation), -20°C to 60°C (storage)

Relative humidity range 10% to 85%

Atmospheric pressure range within 500 to 1060hPa.

Intended Use

This Medical LCD Monitor is an accessory intended for use with Medical Equipment to display alphabetical, numerical and graphical data.

Cautions

Caution



This symbol alerts the user that important literature concerning the operation of this unit has been included. Therefore, it should be read carefully in order to avoid potential problems.



This symbol warns users that un-insulated voltage within the unit may have sufficient magnitude to cause electrical shock. Therefore, it is dangerous to make contact with any part inside the unit. To reduce the risk of electrical shock, DO NOT remove cover (or back). There are no user-serviceable parts inside. Refer servicing to qualified service personnel.

To prevent fire or shock hazards, do not expose this unit to rain or moisture. Do not use this unit's polarized plug with an extension cord receptacle or other outlets unless the prongs can be fully inserted. This display is designed to meet the medical safety requirements for a patient vicinity device. This device may not be used in connection with life support equipment.



Underwriters Laboratories (UL) Classification:

UL safety Compliance:

This medical LCD monitor is U.L. Classified WITH RESPECT TO ELECTRIC SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH UL 60601-1/CAN/CSA C22.2 NO. 601.1



EEC Safety Compliance:

This medical LCD monitor unit meets the requirements of EN-60601-1 so as to conform to the Medical Device Directive 93/42/EEC (general safety information). Use 120V rating 5-15P type plug only in the U.S.

This medical LCD monitor complies to the above standards only when used with the supplied medical grade power supply.

FS-Y1901D - JMW190KB1200F04

Caution: Make sure the power cord is the correct type that is required in your area. This medical LCD monitor has a universal power supply that allows operation in either 100-120V AC or 200-240V AC voltage areas (no user adjustment is required).

Use the proper power cord with correct attachment plug type. If the power source is 120 V AC, use a power cord which is a Hospital Grade Power Cord with NEMA 5-15 style plug, labeled for 125 volts AC with UL and C-UL approvals. If the power source is a 240 V AC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations.

The hospital-grade plug for medical products intended for use in Denmark has DEMKO approval and is rated 13 amps at 250Vac. Plug is recommended for use in medical applications and specifications are being added to the standard SB 107-2-D1. Plug mates with maker's Danish hospital-grade socket. Hospital sockets have slightly different shaped openings allowing only the hospital plug, not the standard Danish plug, to be inserted, to protect the ac circuit in specific medical settings.

A ground post, located on the back of the display, may be used for the purpose of grounding the display's chassis. Any such ground must be installed in accordance with applicable electrical codes. The ground post is shown on the mechanical drawing found in this user's guide.



Recycling

Follow local governing ordinances and recycling plans regarding the recycling or disposal of this equipment.

Cleaning Instructions



Follow your hospital protocol for the handling of blood and body fluids. Clean the display with a diluted mixture of mild detergent and water. Use a soft towel or swab. Use of certain detergents may cause degradation to the labels and plastic components of the product. Consult cleanser manufacturer to see if agent is compatible. Do not allow liquid to enter the display.

Servicing

Do not attempt to service the medical LCD monitor yourself, as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel. Unplug the medical LCD monitor from its power source and refer servicing to qualified personnel under the following conditions:

- If the power cord or plug is damaged or frayed.
- If liquid has been spilled into the medical LCD monitor.
- If objects have fallen into the medical LCD monitor.
- If the medical LCD monitor has been exposed to rain or moisture.
- If the medical LCD monitor has been subjected to excessive shock by being dropped.
- If the cabinet has been damaged.
- If the medical LCD monitor seems to be overheated.
- If the medical LCD monitor emits smoke or abnormal odor.
- If the medical LCD monitor fails to operate in accordance with the operating instructions.

Accessories

Use only accessories specified by the manufacturer, or sold with the medical LCD monitor.

Classification

- Protection against electric shock : Class I including AC/DC Adapter
- Applied Parts : No Applied Parts
- Degree of safety in the presence of flammable anesthetics mixture with air or with oxygen or with nitrous oxide. Not suitable for use in the presence of a flammable anesthetics mixture with oxygen or with nitrous oxide.
- Mode of operation : Continuous.

FCC Information

This medical LCD monitor unit has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference. This monitor can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may interfere with other radio communications equipment. There is no guarantee that interference will not occur in a particular installation. If this equipment is found to cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by carrying out one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the distance between the medical LCD monitor and the subject of interference.
3. Plug the monitor into an outlet on a different electrical circuit than that to which the subject of interference is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

NOTICES TO USER

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC WARNING

This medical LCD monitor generates or uses radio frequency energy. Changes or modifications to this medical LCD monitor may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose authority to operate this equipment if an unauthorized change or modification is made.

PRODUCT LIFETIME

The average lifespan of this LCD monitor has been determined to be approximately 5 years, considering the LCD flat panel which has been specified with a lifetime of 50,000 hours.

1. Guidance and manufacturer's declaration - electromagnetic emission

The medical LCD monitor is intended for use in the electromagnetic environment specified below. The customer or the user of the medical LCD monitor should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment -guidance
RF Emissions CISPR 11	Group 1	The medical LCD monitor uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. The medical LCD monitor is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
RF Emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	D	
Voltage fluctuations IEC 61000-3-3	Complies	

2. Guidance and manufacturer's declaration - electromagnetic immunity

This medical LCD monitor is intended for use in the electromagnetic environment specified below. The customer or the user of the medical LCD monitor should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge(ESD) IEC 61000-4-2	6 kV contact 8 kV air	6 kV contact 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	2 kV for power supply lines 1 kV for input/output lines	2 kV for power supply lines 1 kV for input/output lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	1 kV differential mode 2 kV common mode	1 kV differential mode 2 kV common mode	Main power quality should be that of a typical commercial or hospital environment.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80MHz	3 Vrms 150 kHz to 80MHz	<p>Portable and mobile RF communications equipment should be used no closer to any part of the LCD monitor, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance : d</p> $d = \left[\frac{3,5}{V_1} \right] \sqrt{P}$ <p>Where P is the maximum output power rating of the transmitter in watts (W)</p>

3. Guidance and manufacturer's declaration - electromagnetic immunity

This medical LCD monitor is intended for use in the electromagnetic environment specified below. The customer or the user of monitor should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment-guidance
Power frequency (50/60Hz) Magnetic field IEC 61000-4-8	3.0 A/m	3.0 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Voltage dips, short Interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycle 70% U_T (30% dip in U_T) for 25 cycle <5% U_T (<95% dip in U_T) for 5 sec.	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycle 70% U_T (30% dip in U_T) for 25 cycle <5% U_T (<95% dip in U_T) for 5 sec.	Main power quality should be that of a typical commercial or hospital environment. If the user of monitor requires continued operation during power mains interruptions, it is recommended that monitor be powered from an uninterruptible power supply or a battery. Note: U_T is the A.C. mains voltage prior to application of the test level.
Radiated RF IEC 61000-4-3	3 V/m 80.0 MHz to 2.5 GHz	3 V/m 80.0 MHz to 2.5 GHz	Recommended separation distance $d = \left[\frac{3,5}{E_1} \right] \sqrt{P}$ 80MHz to 800MHz $d = \left[\frac{7}{E_1} \right] \sqrt{P}$ 80MHz to 2.5GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range.

4. Recommended separation distances between portable and mobile RF communications equipment and this medical LCD monitor.

The medical LCD monitor is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the medical LCD monitor as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power [W] of transmitter	Separation distance according to frequency of transmitter[m]		
	150kHz to 80MHz	80MHz to 800MHz	800MHz to 2.5GHz
	$d = \left[\frac{3,5}{V_1} \right] \sqrt{P}$	$d = \left[\frac{3,5}{E_1} \right] \sqrt{P}$	$d = \left[\frac{7}{E_1} \right] \sqrt{P}$
	V1=3Vrms	E1=3V/m	E1=3V/m
0.01	0.116	0.116	0.2333
0.1	0.368	0.3687	0.7378
1	1.166	1.1660	0.2333
10	3.687	3.6872	0.7375
100	11.660	11.6600	23.333
<p>For transmitters rated at a maximum output power not listed above, the recommended separation distance (d) in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p>Note 1) At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p> <p>Note 2) These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

Parts

Monitor

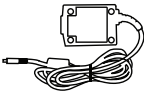


FS-Y1901D

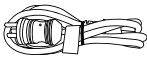
Accessories



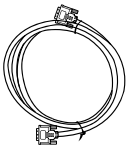
User Manual



AC-DC Adaptor
(JMW190KB1200F04)
(6.23ft/1.9m)



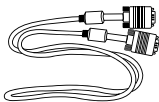
AC Power Cord
(6ft/1.8/m US,UK,EU, China)
(Hospital Grade)



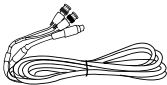
DVI-D Cable
(6ft/1.8m)



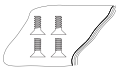
BNC Cable
(6ft/1.8m)



D-SUB Cable
(6ft/1.8m)
(available for purchase)



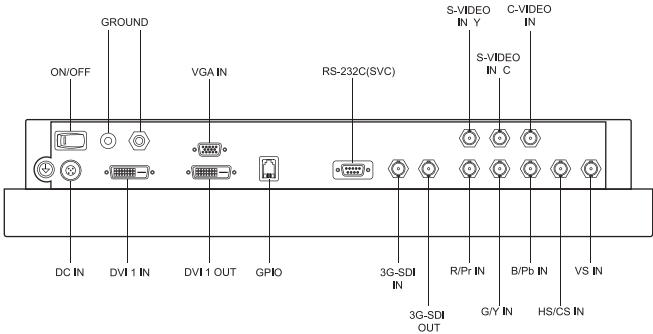
S-Video (Y/C) Cable
(6ft/1.8m)
(available for purchase)



Screw BH M4 x 10

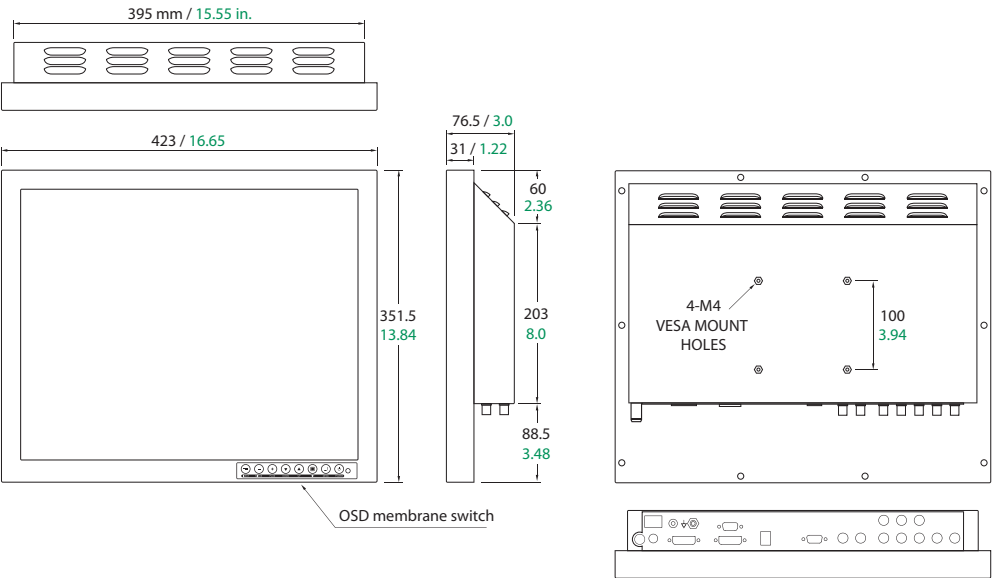
Connectors

19" FS-Y1901D Monitor Connector



Mechanical Product Drawing

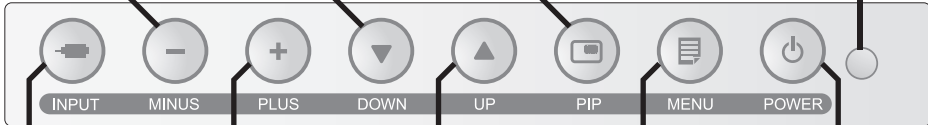
19" FS-Y1901D Dimension



Controls

On Screen Display (OSD) Buttons

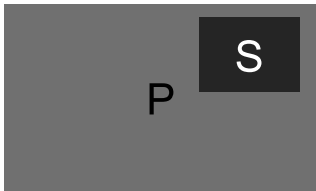
An 8 button keypad, located in bottom right corner on the front of the display, allows the user to make adjustments to various display parameters using the On Screen Display (OSD) system.

<p>QUICK ADJUST. Press to decrease the display contrast. No need to enter the OSD main menu.</p> <p>When the OSD menu is activated, press to decrease the adjustment of the selected function.</p>	<p>QUICK ADJUST. Press to decrease the display brightness. No need to enter the OSD main menu.</p> <p>When the OSD menu is activated, press to move the menu selection downward.</p>	<p>Press to enable PIP (Picture in Picture) function.</p> <p>Select from: PIP PBP1 PBP2</p>	<p>No Light - Normal, display has power and an active signal.</p> <p>Blinking Light - Standby Mode, no active signal is present.</p> <p>Constant Light - Off Mode, power to the LCD screen has been turned off using the OSD power button, however the display unit is still connected to a power source.</p> <p>Note 1 : Normal and Off Mode behavior of the Power Indicator Light can be changed according to the requirements of the customer. Constant light can be changed to indicate Normal if desired.</p> <p>Note 2 : The main AC power switch on the display's back panel should be in the ON position. The front OSD power button is used to turn on the LCD screen on and off.</p>	
				
<p>Press to show the input selection menu and to change the display signal source.</p> <p>Input choices: DVI 1, SDI, VGA, RGBS, YPbPr, S-VIDEO, C-VIDEO</p>	<p>QUICK ADJUST. Press to increase the display contrast. No need to enter the OSD main menu.</p> <p>When the OSD menu is activated, press to increase the adjustment of the selected function.</p>	<p>QUICK ADJUST. Press to increase the display brightness. No need to enter the OSD main menu.</p> <p>When the OSD menu is activated, press to move the menu selection upward.</p>	<p>Press to activate the OSD menu.</p> <p>When the OSD menu is active, press to exit from the main menu or submenu.</p>	<p>Press to turn power on/off to the display's front LCD screen.</p>

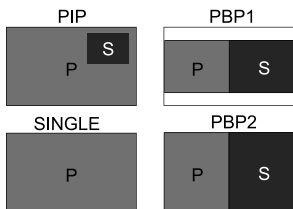
GPIO

There are four pins on the RJ9 GPIO connector. Each pin has a pre programmed function assigned to it. The function is initiated when the pin is grounded.

Pin 1.
Primary and Secondary Swap. Grounding this pin will swap the primary and secondary image.



Pin 2.
PIP, PBP1, PBP2, Single. Continuously grounding this pin causes the position and size choices to cycle.



Pin 3.
Record Indicator. The record indicator is displayed in the top left corner when the pin is ground to pin 4. The indicator will vanish when the contact is opened.



Pin 4.
Connector Ground. This is the common ground location.



Power Management

This monitor does not adhere to the VESA DPMS standard when no signal is present on the video input.

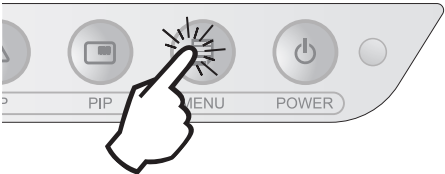
Status	LED sign	Power Consumption
FS-Y1901D		
Normal mode	Off	<60W
Standby mode	Blinking	<13W
OSD power off	Constant	<13W
DC power off	Off	<13W

On Screen Display (OSD) Menus

FSN display monitors come equipped with a rich set of features for system set-up, image adjustments, and screen layout control. These features are managed through the On Screen Display, or OSD. Some options presented in the OSD are contextual and vary depending on the active input signal. See the Controls section for a complete description of each OSD button.

1. Enter the OSD

To activate the OSD menu, press the MENU button on the front of the display monitor. To close the OSD menu, press the menu button to exit from the main menu or a sub menu.



2. Pick a Main Menu Category

After entering the OSD, use the UP ▲ and Down ▼ buttons on the front of the display monitor to navigate to a main menu category.



or



The ADJUST menu controls brightness, contrast, and more.



The COLOR SETTING menu controls preset or customized color settings.



The IMAGE menu controls horizontal / vertical positioning and sharpness.



The SETUP menu controls language, OSD behavior, and more.



The PIP menu controls picture in picture layouts.

3. Pick a Submenu Category

After using the UP ▲ and Down ▼ buttons to navigate to the desired main menu category, press the + button to enter the submenus associated with the selected main menu.

Submenus for the following signal types:

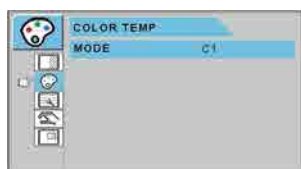
VGA Analog, RGB

After selecting a main menu category, press the **+** button to enter the associated submenu as shown below. Next, use the UP **▲** and Down **▼** buttons to navigate to the desired submenu, then adjust as needed with the **+** and **-** buttons. Select the MENU button to exit from the submenu or main menu.



Submenus under the ADJUST menu

1. BRIGHTNESS Increases or decreases the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. CLOCK Increases or decreases the sampling frequency. (Range : 0~100)
4. PHASE Increases or decreases the phase level. (Range : 0~100)
5. BACKLIGHT Adjusts backlight dimming level. (Range : 0~100)
6. AUTO ADJUST fits to the most appropriate screen on the D-SUB Analog / RGBs signal.



Submenus under the COLOR TEMP menu

1. MODE Changes the color mode. (C1, C2, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



Submenus under the IMAGE menu

1. IMAGE SIZE Changes the image size. (FULL, FILL ASPECT, 1:1, NORMAL)
2. H POSITION Adjusts the horizontal position of the displayed source image. (Range : 0~100)
3. V POSITION Adjusts the vertical position of the displayed source image. (Range : 0~100)
4. GAMMA Adjusts GAMMA value. (VIDEO, BYPASS, 1.8, 2.0, 2.2, 2.4, 2.6, PACS)
5. FILTER Sets the sharpness of image. (Softest, Soft, Normal, Sharp, Sharpest)
6. OVER SCAN Adjusts the displayed size. (0~8)
7. IMAGE SETTING Changes the image setting. (Preset 1, 2 / User 1, 2, 3)
8. ZOOM / PAN Enlarges the image, moves images left and right.
9. FREEZE Keeps the image still.



Submenus under the SETUP menu

1. LANGUAGE Changes the OSD language. (8 languages)
2. OSD COLOR Adjusts the OSD background from white opaque to translucent.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. DURATION Adjusts the length of time the OSD Menu is present on the screen. (5, 10, 20, 30, 60, 90, 120, 180, 240 seconds)
5. RESET SETTINGS Changes all the OSD values to factory default.
6. AUTO INPUT SELECT Disables or enables auto source select. (ON: Searches through all possible input sources until an active video source is found. OFF: Video input is manually selected.)
7. INACTIVE INPUT Change the input source between RGBs and YPbPr.
8. PICTURE DELAY Adjust the picture delay. (0: Disable deinterlacer engine, 1: Enable deinterlacer engine)



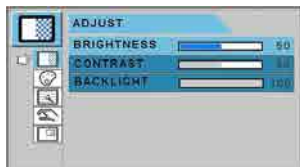
Submenus under the PIP menu

1. LAYOUT Changes the layout. (OFF, PIP, PBP1, PBP2)
2. SOURCE Changes the secondary source.
3. SIZE Changes the PIP size. (Small, Large)
4. POSITION Changes the PIP position.
5. SWAP Swaps the position of the Primary and Secondary images.

Submenus for the following signal types:

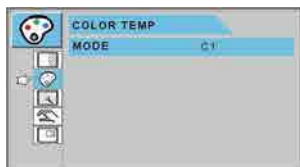
DVI

After selecting a main menu category, press the **+** button to enter the associated submenus as shown below. Next, use the UP **▲** and Down **▼** buttons to navigate to the desired submenu, then adjust as needed with the **+** and **-** buttons. Select the MENU button to exit from the submenu or main menu.



Submenus under the ADJUST menu

1. BRIGHTNESS Increases or decrease the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. BACKLIGHT Adjusts backlight dimming level. (Range : 0~100)



Submenus under the COLOR TEMP menu

1. MODE Changes the color mode. (C1, C2, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



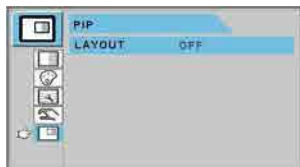
Submenus under the IMAGE menu

1. IMAGE SIZE Changes the image size. (FULL, FILL, ASPECT, 1:1, NORMAL)
2. GAMMA Adjusts GAMMA value. (VIDEO, BYPASS, 1.8, 2.0, 2.2, 2.4, 2.6, PACS)
3. FILTER Sets the sharpness of image. (Softest, Soft, Normal, Sharp, Sharpest)
4. OVER SCAN Adjusts the displayed size. (0~8)
5. IMAGE SETTING Changes the image setting. (Preset 1,2 / User 1,2,3)
6. ZOOM / PAN Enlarges the image, moves images left and right.
7. FREEZE Keeps the image still.



Submenus under the SETUP menu

1. LANGUAGE Changes the OSD language. (8 languages)
2. OSD COLOR Adjusts the OSD background from white opaque to translucent.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. DURATION Adjusts the length of time the OSD Menu is present on the screen. (5, 10, 20, 30, 60, 90, 120, 180, 240 seconds)
5. RESET SETTINGS Changes all the OSD values to factory default.
6. AUTO SOURCE SELECT Disables or enables auto source select. (ON: Searches through all possible input sources until an active video source is found. OFF: Video input is manually selected.)
7. INACTIVE INPUT Change the input source between RGBs and YPbPr.
8. PICTURE DELAY Adjust the picture delay. (0: Disable deinterlacer engine, 1: Enable deinterlacer engine)



Submenus under the PIP menu

1. LAYOUT Changes the layout. (OFF, PIP, PBP1, PBP2)
2. SOURCE Changes the secondary source.
3. SIZE Changes the PIP size. (Small, Large)
4. POSITION Changes the PIP position.
5. SWAP Swaps the position of the Primary and Secondary images.

Submenus for the following signal types:

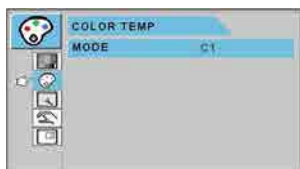
YPbPr

After selecting a main menu category, press the **+** button to enter the associated submenu as shown below. Next, use the UP **▲** and Down **▼** buttons to navigate to the desired submenu, then adjust as needed with the **+** and **-** buttons. Select the MENU button to exit from the submenu or main menu.



Submenus under the ADJUST menu

1. BRIGHTNESS Increases or decreases the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. SHARPNESS Adjusts the sharpness of video image (Range : 0~100)
4. SATURATION Changes the tone of color. (Range : 0~100)
5. COLOR Changes the richness of color. (Range : green 0~50, red 0~50)
6. BACKLIGHT Adjust backlight dimming level (Range : 0~100)
7. CLOCK Increases or decreases the sampling frequency. (Range : 0~100)
8. PHASE Increases or decreases the Phase level. (Range : 0~100)



Submenus under the COLOR TEMP menu

1. MODE Changes the color mode. (C1, C2, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



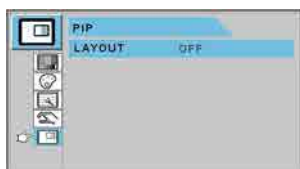
Submenus under the IMAGE menu

1. IMAGE SIZE Changes the image size. (FULL, FILL ASPECT, 1:1, NORMAL)
2. H POSITION Adjusts the horizontal position of the displayed source image. (Range : 0~100)
3. V POSITION Adjusts the vertical position of the displayed source image. (Range : 0~100)
4. GAMMA Adjusts GAMMA value. (VIDEO, BYPASS, 1.8, 2.0, 2.2, 2.4, 2.6, PACS)
5. FILTER Sets the sharpness of image. (Softest, Soft, Normal, Sharp, Sharpest)
6. OVER SCAN Adjusts the displayed size. (0~8)
7. IMAGE SETTING Changes the image setting. (Preset 1,2 / User 1,2,3)
8. ZOOM / PAN Enlarges the image, moves images left and right.
9. FREEZE Keeps the image still.



Submenus under the SETUP menu

1. LANGUAGE Changes the OSD language. (8 languages)
2. OSD COLOR Adjusts the OSD background from white opaque to translucent.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. DURATION Adjusts the length of time the OSD Menu is present on the screen. (5, 10, 20, 30, 60, 90, 120, 180, 240 seconds)
5. RESET SETTINGS Changes all the OSD values to factory default.
6. AUTO SOURCE SELECT Disables or enables auto source select. (ON: Searches through all possible input sources until an active video source is found. OFF: Video input is manually selected.)
7. INACTIVE INPUT Change the input source between RGBs and YPbPr.
8. PICTURE DELAY Adjust the picture delay. (0: Disable deinterlacer engine, 1: Enable deinterlacer engine)



Submenus under the PIP menu

1. LAYOUT Changes the layout. (OFF, PIP, BPB1. BPB2)
2. SOURCE Changes the secondary source.
3. SIZE Changes the PIP size. (Small, Large)
4. POSITION Changes the PIP position.
5. SWAP Swaps the position of the Primary and Secondary images.

Submenus for the following signal types:

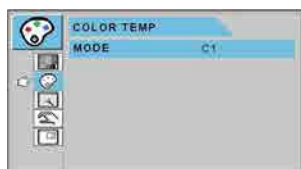
S-VIDEO, C-VIDEO

After selecting a main menu category, press the **+** button to enter the associated submenu as shown below. Next, use the UP **▲** and Down **▼** buttons to navigate to the desired submenu, then adjust as needed with the **+** and **-** buttons. Select the MENU button to exit from the submenu or main menu.



Submenu under the ADJUST menu

1. BRIGHTNESS Increases or decreases the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. SHARPNESS Adjusts the sharpness of video image (Range : 0~100)
4. SATURATION Changes the tone of color. (Range : 0~100)
5. COLOR Changes the richness of color. (Range : green 0~50, red 0~50)
6. BACKLIGHT Adjust backlight dimming level (Range : 0~100)



Submenu under the COLOR TEMP menu

1. MODE Changes the color mode. (C1, C2, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



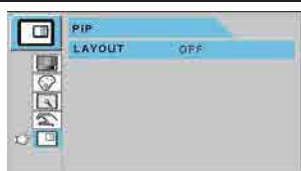
Submenu under the IMAGE menu

1. IMAGE SIZE Changes the image size. (FULL, FILL ASPECT, 1:1, NORMAL)
2. H POSITION Adjusts the horizontal position of the displayed source image. (Range : 0~100)
3. V POSITION Adjusts the vertical position of the displayed source image. (Range : 0~100)
4. GAMMA Adjusts GAMMA value. (VIDEO, BYPASS, 1.8, 2.0, 2.2, 2.4, 2.6, PACS)
5. FILTER Sets the sharpness of image. (Softest, Soft, Normal, Sharp, Sharpest)
6. OVER SCAN Adjusts the displayed size. (0~8)
7. IMAGE SETTING Changes the image setting. (Preset 1, 2 / User 1, 2, 3)
8. ZOOM / PAN Enlarges the image, moves images left and right.
9. FREEZE Keeps the image still.



Submenu under the SETUP menu

1. LANGUAGE Changes the OSD language. (8 languages)
2. OSD COLOR Adjusts the OSD background from white opaque to translucent.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. DURATION Adjusts the length of time the OSD Menu is present on the screen. (5, 10, 20, 30, 60, 90, 120, 180, 240 seconds)
5. RESET SETTINGS Changes all the OSD values to factory default.
6. AUTO SOURCE SELECT Disables or enables auto source select. (ON: Searches through all possible input sources until an active video source is found. OFF: Video input is manually selected.)
7. INACTIVE INPUT Change the input source between RGBs and YPbPr.
8. PICTURE DELAY Adjust the picture delay. (0: Disable deinterlacer engine, 1: Enable deinterlacer engine)



Submenu under the PIP menu

1. LAYOUT Changes the layout. (OFF, PIP, PBP1, PBP2)
2. SOURCE Changes the secondary source.
3. SIZE Changes the PIP size. (Small, Large)
4. POSITION Changes the PIP position.
5. SWAP Swaps the position of the Primary and Secondary images.

Submenus for the following signal types:

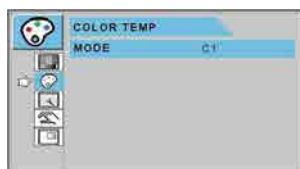
SDI

After selecting a main menu category, press the **+** button to enter the associated submenus as shown below. Next, use the UP **▲** and Down **▼** buttons to navigate to the desired submenu, then adjust as needed with the **+** and **-** buttons. Select the MENU button to exit from the submenu or main menu.



Submenus under the ADJUST menu

1. BRIGHTNESS Increases or decreases the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. SATURATION Changes the tone of color. (Range : 0~100)
4. COLOR Changes the richness of color. (Range : green 0~50, red 0~50)
5. BACKLIGHT Adjust backlight dimming level (Range : 0~100)



Submenus under the COLOR TEMP menu

1. MODE Changes the color mode. (C1, C2, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



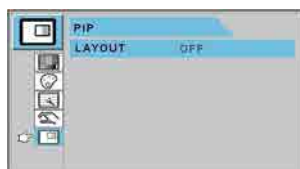
Submenus under the IMAGE menu

1. IMAGE SIZE Changes the image size. (FULL, FILL ASPECT, 1:1, NORMAL)
2. GAMMA Adjusts GAMMA value. (VIDEO, BYPASS, 1.8, 2.0, 2.2, 2.4, 2.6, PACS)
3. FILTER Sets the sharpness of image. (Softest, Soft, Normal, Sharp, Sharpest)
4. OVER SCAN Adjusts the displayed size. (0~8)
5. IMAGE SETTING Changes the image setting. (Preset 1,2 / User 1,2,3)
6. ZOOM / PAN Enlarges the image, moves images left and right.
7. FREEZE Keeps the image still.



Submenus under the SETUP menu

1. LANGUAGE Changes the OSD language. (8 languages)
2. OSD COLOR Adjusts the OSD background from white opaque to translucent.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. DURATION Adjusts the length of time the OSD Menu is present on the screen. (5, 10, 20, 30, 60, 90, 120, 180, 240 seconds)
5. RESET SETTINGS Changes all the OSD values to factory default.
6. AUTO SOURCE SELECT Disables or enables auto source select. (ON: Searches through all possible input sources until an active video source is found. OFF: Video input is manually selected.)
7. INACTIVE INPUT Change the input source between RGBs and YPbPr.
8. PICTURE DELAY Adjust the picture delay. (0: Disable deinterlacer engine, 1: Enable deinterlacer engine)



Submenus under the PIP menu

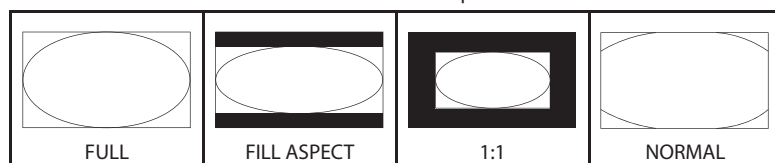
1. LAYOUT Changes the layout. (OFF, PIP, PBP1, PBP2)
2. SOURCE Changes the secondary source.
3. SIZE Changes the PIP size. (Small, Large)
4. POSITION Changes the PIP position.
5. SWAP Swaps the position of the Primary and Secondary images.

On Screen Display (OSD) System Overview

Submenu Descriptions

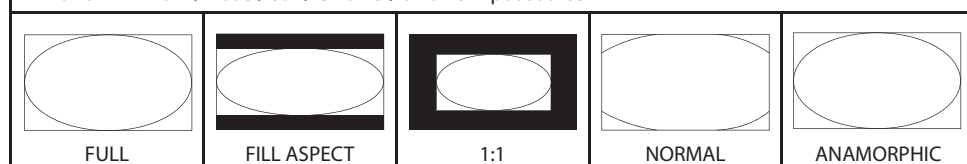
Submenu	Function/Description
BRIGHTNESS	<i>Quick Adjust Method:</i> Press the UP ▲ or DOWN ▼ buttons. Or, select BRIGHTNESS submenu and adjust with the PLUS + and MINUS -. Setting the brightness too high or too low will decrease the amount of visible gray scales.
CONTRAST	<i>Quick Adjust Method:</i> Press the PLUS + or MINUS - buttons. Or, select CONTRAST submenu and adjust with the PLUS + and MINUS -. Setting the contrast too high or too low will cause loss of some gray scales.
CLOCK	Do not adjust. This setting will adjust automatically after auto adjustment. When frequency value is wrong, the horizontal image may display incorrectly or picture noise may be present.
PHASE	Do not adjust. This setting will adjust automatically after auto adjustment. When frequency value is wrong, picture noise may be present.
BACKLIGHT	Adjust backlight dimming level. Setting the backlight too low will causes dark image and too high will decrease the backlight lifetime.
AUTO ADJUST	Fits to the most appropriate screen on the D-SUB Analog signal.
SHARPNESS	Adjusts the sharpness of a video image.
SATURATION	Changes the color tone.
COLOR	Changes the richness of color (Range : Green 0~50, Red 0~50)
COLOR TEMP C1	Default 6500K color setting
COLOR TEMP C2	Default 9300K color setting
COLOR TEMP USER	Default 7200K color setting, value can be changed by user

IMAGE SIZE - DSUB / DVI OPTICAL / DVI DIGITAL input source



CAUTION : FILL ASPECT, NORMAL Size are dependant on input size ratio.

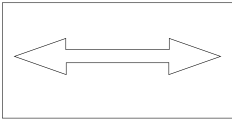
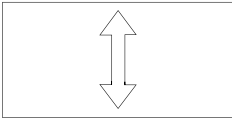
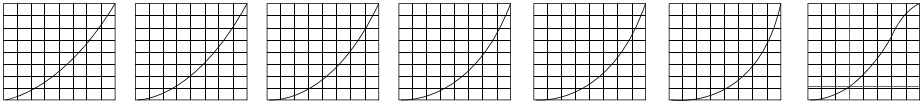
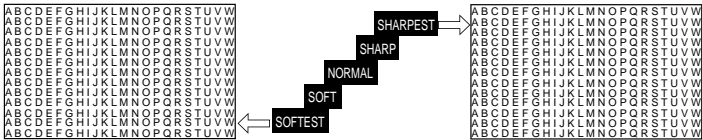
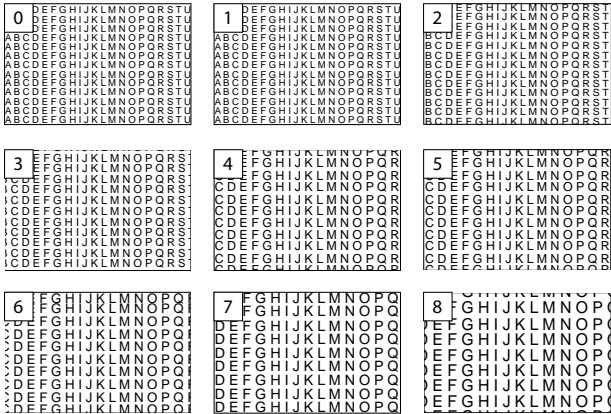
IMAGE SIZE - YPbPr / RGBS / SDI / CVIDEO / SVIDEO input source



CAUTION : FILL ASPECT, NORMAL, ANAMORPHIC Size are depend on input size ratio.

On Screen Display (OSD) System Overview (continued)

Submenu Descriptions

Submenu	Function/Description	
H POSITION		Adjusts the horizontal position of the image. This setting will return to the default state when executing AUTO ADJUST or RESET SETTINGS.
V POSITION		Adjusts the vertical position of the image. This setting will return to the default state when executing AUTO ADJUST or RESET SETTINGS.
GAMMA	Adjusts the gamma curve of a video image. Note: BYPASS depends on panel gamma value, please refer to the panel specification.	
	<div><div>1.8</div><div>2.0</div><div>2.2</div><div>2.4</div><div>2.6</div><div>PACS</div><div>VIDEO</div></div> 	
FILTER	Adjusts the sharpness of a video image. 	
OVER SCAN	Enables an 8-step, 10% maximum, over scan of original input image. 	

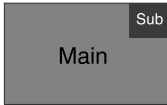
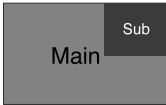
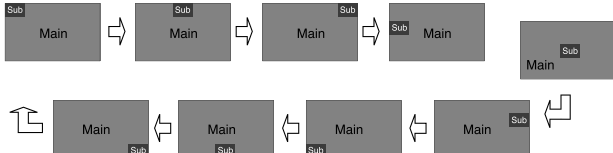
On Screen Display (OSD) System Overview (continued)

Submenu Descriptions

Submenu	Function/Description
IMAGE SETTING	Save the 5 user's setting for BRIGHTNESS, CONTRAST, BACKLIGHT, COLOR TEMP, FILTER value separately. (PRESET1,PRESET2,USER1,USER2,USER3)
ZOOM / PAN	Controls image ZOOM in/out.
<p>Controls the image PAN left/right, up/down. The maximum ZOOM size is ten times as large as the original.</p>	
FREEZE	Freezes the main image. Does not freeze secondary image in PIP mode.
LANGUAGE	Changes the OSD to one of 9 languages: ENGLISH, GERMAN, FRENCH, SPANISH, ITALIAN, JAPANESE, CHINESE, KOREAN
OSD COLOR	<p>Adjusts the transparency of the OSD menu box.</p>
OSD POSITION	<p>Changes the on-screen position of the OSD menu box to 1 of 9 locations.</p>

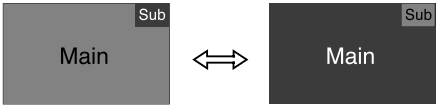
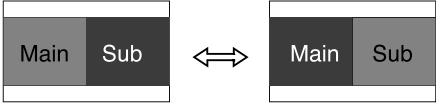
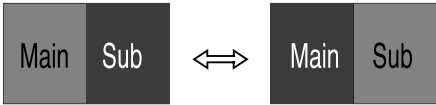
On Screen Display (OSD) System Overview (continued)

Submenu Descriptions

Submenu	Function/Description																																																																											
OSD DURATION	Adjusts the time until the OSD menu will disappear after making adjustments.																																																																											
RESET SETTINGS	Resets the unit to its original status when it left the factory.																																																																											
AUTO INPUT SELECT	When set to ON, the monitor will automatically search for connected input sources. Does not affect the sub window when in PIP mode.																																																																											
INACTIVE INPUT	Change the input source between RGBs and YPbPr.																																																																											
PIP LAYOUT	Change sub window layout (SINGLE,PIP,PBP1,PBP2) PIP : Main/Sub window doesn't change aspect ratio. PBP1 : Main/Sub window doesn't change aspect ratio. PBP2 : Main/Sub window H/V display 1:1 size.																																																																											
PIP SOURCE	<div>Selects the PIP source input. Change other sub windows through OSD pip menu. The following table shows PIP matching options with the main and sub window.</div> <table><tr><th colspan="2"></th><th colspan="7">Sub window</th></tr><tr><th colspan="2"></th><th>DVI DIGITAL 1</th><th>DSUB ANALOG</th><th>SDI</th><th>YPbPr</th><th>RGBS</th><th>CVIDEO</th><th>SVIDEO</th></tr><tr><th rowspan="8">Main window</th><th>DVI DIGITAL 1</th><td>X</td><td>X</td><td>O</td><td>X</td><td>X</td><td>O</td><td>O</td></tr><tr><th>DSUB ANALOG</th><td>X</td><td>X</td><td>O¹</td><td>X</td><td>X</td><td>O</td><td>O</td></tr><tr><th>SDI</th><td>O</td><td>O¹</td><td>X</td><td>O¹</td><td>O¹</td><td>X</td><td>X</td></tr><tr><th>YPbPr</th><td>X</td><td>X</td><td>O¹</td><td>X</td><td>X</td><td>O</td><td>O</td></tr><tr><th>RGBS</th><td>X</td><td>X</td><td>O¹</td><td>X</td><td>X</td><td>O</td><td>O</td></tr><tr><th>CVIDEO</th><td>O</td><td>O</td><td>X</td><td>O</td><td>O</td><td>X</td><td>X</td></tr><tr><th>SVIDEO</th><td>O</td><td>O</td><td>X</td><td>O</td><td>O</td><td>X</td><td>X</td></tr></table> <div>O=supported, X=not supported, O¹=supported up to UXGA, 60Hz (162MHz)</div>			Sub window									DVI DIGITAL 1	DSUB ANALOG	SDI	YPbPr	RGBS	CVIDEO	SVIDEO	Main window	DVI DIGITAL 1	X	X	O	X	X	O	O	DSUB ANALOG	X	X	O ¹	X	X	O	O	SDI	O	O ¹	X	O ¹	O ¹	X	X	YPbPr	X	X	O ¹	X	X	O	O	RGBS	X	X	O ¹	X	X	O	O	CVIDEO	O	O	X	O	O	X	X	SVIDEO	O	O	X	O	O	X	X
		Sub window																																																																										
		DVI DIGITAL 1	DSUB ANALOG	SDI	YPbPr	RGBS	CVIDEO	SVIDEO																																																																				
Main window	DVI DIGITAL 1	X	X	O	X	X	O	O																																																																				
	DSUB ANALOG	X	X	O ¹	X	X	O	O																																																																				
	SDI	O	O ¹	X	O ¹	O ¹	X	X																																																																				
	YPbPr	X	X	O ¹	X	X	O	O																																																																				
	RGBS	X	X	O ¹	X	X	O	O																																																																				
	CVIDEO	O	O	X	O	O	X	X																																																																				
	SVIDEO	O	O	X	O	O	X	X																																																																				
	PIP SIZE	<div>Changes the size of the sub window when using PIP mode.</div> <div><div><div>Small - 25% of panel size</div></div><div><div>Large - 33% of panel size</div></div></div> <div>CAUTION : DO not change input source aspect ratio. The PIP aspect ratio depends on input timing.</div>																																																																										
PIP POSITION	<div>Changes the on-screen position of the PIP sub window to 1 of 9 locations.</div> <div></div>																																																																											

On Screen Display (OSD) System Overview (continued)

Submenu Descriptions

Submenu	Function/Description
PIP SWAP	Swap main window and sub window contents in PIP,PBP1,PBP2. Picture in picture (PIP): 
	Picture by Picture 1 (PBP1): 
	Picture by Picture 2 (PBP2)*: 

Standard Signal Table

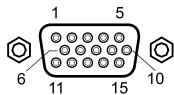
Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)
640 x 400 @70Hz	31.469	70.087	25.175
640 x 480 @60Hz	31.469	59.940	25.175
640 x 480 @72Hz	37.861	72.809	31.500
640 x 480 @75Hz	37.500	75.000	31.500
640 x 480 @85Hz	43.269	85.008	36.000
720 x 400 @85Hz	37.927	85.038	35.500
800 x 600 @56Hz	35.156	56.250	36.000
800 x 600 @60Hz	37.879	60.317	40.000
800 x 600 @72Hz	48.077	72.188	50.000
800 x 600 @75Hz	46.875	75.000	49.500
800 x 600 @85Hz	53.674	85.061	56.250
1152 x 864 @60Hz	54.348	60.053	80.000
1152 x 864 @70Hz	63.955	70.016	94.200
1152 x 864 @75Hz	67.500	75.000	108.000
1280 x 720 @60Hz	45.000	60.000	74.250
1280 x 960 @60Hz	60.000	60.000	108.000
1280 x 960 @85Hz	85.938	85.002	148.500
1280 x 1024 @60Hz	63.974	60.013	108.500
1280 x 1024 @75Hz	79.976	75.025	135.000

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Clock Frequency (MHz)
1280 x 1024 @85Hz	91.146	85.024	157.500
1920 x 1080 @60Hz	67.500	60.000	148.500

Signal Connector Pin Assignments

VGA Interface Connector

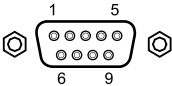
Pin No.	Assignment
1	RED
2	GREEN
3	BLUE
4	GND
5	DDC 5V / Check Cable
6	GND-RED
7	GND-GREEN
8	GND-BLUE
9	No Connection
10	GND-SYNC
11	GND
12	DDC DATA
13	HORIZONTAL SYNC
14	VERITICAL SYNC
15	DDC CLOCK



Signal Connector Pin Assignments

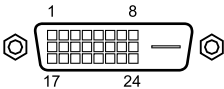
RS232C interface connector

Pin No.	Assignment
1	No Connection
2	TXD
3	RXD
4	No Connection
5	GND
6	No Connection
7	No Connection
8	No Connection
9	No Connection



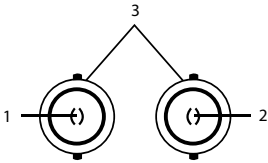
DVI Input / output interface connector

Pin No.	Assignment	Pin No.	Assignment
1	T.M.D.S. Data 2-	13	No Connection
2	T.M.D.S. Data 2+	14	+5V Power
3	T.M.D.S. Data 2/4 Shield	15	GND
4	No Connection	16	Hot Plug Detect
5	No Connection	17	T.M.D.S. Data 0-
6	DDC Clock	18	T.M.D.S. Data 0+
7	DDC Data	19	T.M.D.S. Data 0/5 Shield
8	No Connection	20	No Connection
9	T.M.D.S. Data 1-	21	No Connection
10	T.M.D.S. Data 1+	22	T.M.D.S. Clock Shield
11	T.M.D.S. Data 1/3 Shield	23	T.M.D.S. Clock+
12	No Connection	24	T.M.D.S. Clock-



SDI interface connector

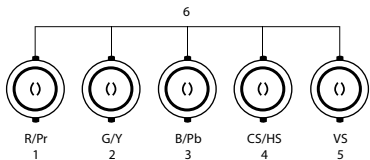
Pin No.	Description
1	SDI input
2	SDI output
3	GND



Signal Connector Pin Assignments (continued)

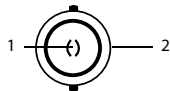
Component (RGBS, YPbPr) interface connector

Pin No.	Description - RGBS	Description - YPbPr
1	RED	Pr
2	GREEN	Y
3	BLUE	Pb
4	H-Sync / C-Sync	No Connection
5	V-Sync	No Connection
6	GND	GND



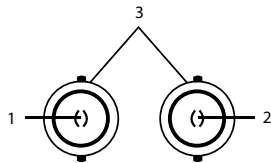
C-Video interface connector

Pin No.	Description
1	Composite
2	GND



S-Video interface connector

Pin No.	Description
1	S-VIDEO /Y (Luma)
2	S-VIDEO /C (Chroma)
3	GND



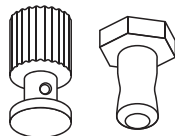
GPIO

Pin No.	Assignment
1	P,S Swap
2	PIP,PBP1,PBP2 Select
3	Record Indicator
4	Ground



Equipotential earth terminal

This should be connected to other equipment's earth terminal.



Specification

FS-Y1901D

Item		Description
Optical Characteristics	Type	19" LED backlit LCD
	Screen Size	19 inch(5:4)
	Maximum Resolution	1280 X 1024
	Pixel Pitch	0.294(H) mm X 0.294(V) mm
	Display Colors	16.7 Million colors
	Contrast Ratio (Typ.)	800:1
	Viewing Angle	85° / 85° / 85° / 85°
	Response Time	25 msec (rising and falling)
	Luminance (Typical)	500 cd/m ²
Front Filter	Glass	Anti-Reflection coating
Power Consumption	Maximum	< 60W
	Standby Mode	< 20W
Control Key	Front Side	INPUT, -, +, ▲, ▼, PIP, MENU, POWER
Input Signal	Video	1 x DVI-D, 1 x SDI(SD/HD/3G), 1 x VGA, 1 x C-VIDEO, 1 x S-VIDEO 1 x Component (RGBS,YPbPr)
Output Signal	Video	1 x DVI-D 1 x SDI(SD/HD/3G)
Power Supply	AC/DC Adaptor (AC 100-240V~, DC 12V 7A)	
Mounting Hole	VESA standard (100mm X 100mm)	
Dimensions	Size and Weight	423(W) x 351.5(H) x 76.5(D) (mm) 5.8 Kg 16.653(W) x 13.838(H) x 3.011(D) (inch) 12.79 lbs

Cleaning Instructions

Precautions

Before cleaning, switch the display in stand-by position to prevent the control touch panel from being activated inadvertently by sweeping over the front filter. In stand-by position the touch panel cannot be activated by just sweeping over them. To switch the display on again, you must press the stand-by key again.

Take care not to damage or scratch the front filter or LCD panel.

- Be careful with rings or other jewelry that can touch the front filter.
- Do not apply pressure on the front filter or LCD panel.
- Do not apply or spray liquid directly to the front filter, panel or cabinet as excess liquid may cause damage to internal electronics. Instead, apply the liquid to the cleaning cloth.
- Follow your hospital protocol for the handling of blood and body fluids.
- The display is not disinfected or packed in sterile environment.
- Follow your hospital protocol in case the display needs to be disinfected prior to installation.

Front Filter

Proceed as follows:

1. Remove dust with a dry, lint-free, non-abrasive soft cotton cloth.
2. Remove fingerprints or grease using a lint-free, non-abrasive soft cotton cloth that is lightly moistened with plain water or a mild commercial glass cleaning product suited for coated glass surfaces.
3. Gently wipe dry with a dry cloth.

The following products are tested and approved:

- Misty Clear Lemon 10 Disinfectant
- Bohle glass cleaner
- Zep Heavy-duty glass & all surface cleaner
- Klear Screen
- Screen TFT (Kontakt Chemie)
- Incidin Foam (Ecolab)
- Microzid
- Mild detergent
- Isopropyl alcohol with concentration < 5%
- Household bleach (generic sodium hypochlorite, solutions of 5.25% sodium hypochlorite diluted with water between 1:10 and 1:100)

Cleaning Instructions (continued)

Precautions

Do NOT use on front filter:

- Alcohol/solvents at higher concentration > 5%
- Strong alkalis, strong solvents
- Acid
- Detergents with fluoride
- Detergents with ammonia
- Detergents with abrasives
- Steel wool
- Sponge with abrasives
- Steel blades
- Cloth with steel thread

Cabinet

Proceed as follows:

- Clean the cabinet using a soft cotton cloth, lightly moistened with a recognized cleaning product for medical equipment.
- Repeat with water only.
- Wipe dry with a dry cloth.

The cabinet has been tested for resistance to the following products:

- Virex Ready-to-use Disinfectant Cleaner
- Misty Clear Lemon 10 Disinfectant
- Misty Multi-Purpose Disinfectant Cleaner
- Misty Multi-Purpose Disinfectant Cleaner II
- Zep Heavy-duty glass & all surface cleaner
- Klear Screen
- Screen TFT (Kontakt Chemie)
- Incidin Foam (Ecolab)
- Microzid
- Mild detergent
- Isopropyl alcohol with concentration < 5%
- Household bleach (generic sodium hypochlorite, solutions of 5.25% sodium hypochlorite diluted with water between 1:10 and 1:100)
- Precise Hospital Foam Cleaner Disinfectant

Thank you for choosing our product.

Service

Please contact our customer service if you need any information or help with our products.

Warranty

One year, parts and labor.

EC Representative

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Specifications are subject to change with or without notice.



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