

16 Channel Monitor HS-7041

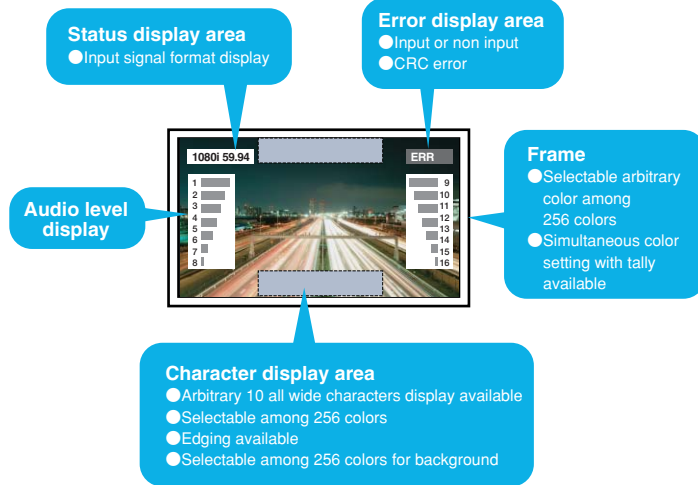
HS-7041 can provide a maximum of 16 channel of HDTV display on a single display.
Monitoring of multiple channel image contents available.
Contributing to save space and cost an HDTV monitor.



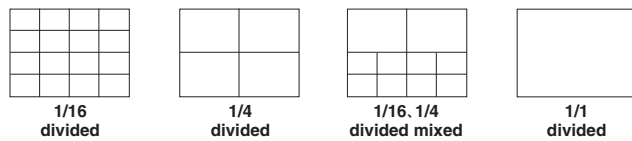
Features

- Display size selectable between 1/16, 1/4, 1/1 and mixed each
- HD/SD mixed display available
- Underscan available
- Input signal format auto detection
- Overlay display of input signal status, error, audio level and arbitrary character available
- Utility software for setting/manual operation attached
- Color of frame can be changed to previously setting color by external tally signal.
- Redundant power supply

Display Chart



Sample of Display



Specifications

Input/Output signal	HD-SDI signal Reference input	Compliant to SMPTE 274M, SMPTE 296M, BTA S-001B, BTA S-004B HD 3 level sync signal (compliant to ARIB BTA S-001B)
Vertical input	D1-SDI	BBS (compliant to EIA RS-170) 60Hz, 59.94Hz ※ same format is allowed for input/output
Display frame		SMPTE 259M (optional for input) Squeeze ratio from 100% to 90% and frame display are available. Squeeze ratio per channel from 100% to 90% and frame display are available. ※ Both squeeze all display and squeeze per channel ratio from 100% to 81%
Display window		Display size selectable between 1/16, 1/4, 1/1
Display frame and character per each channel	Frame Character	256 colors, color selectable by external tally signal. 10 characters, 256 colors, edge and background color setting available
External interface		External tally signal input (relay input) RS-232C/RS-422
General specifications	Voltage Power consumption Operating temperature range Operating humidity range Dimensions Weight	AC100~240V (redundant power supply standard equipped) 145W MAX 0°C~40°C (no condensation) 30%~85% RH (no condensation) 430(W)×132.5(H)×510(D) (3U/ excluding projected parts) Approx. 16kg



▶ For SUB studios and the relay cars
Because 16-screen Splitter can offer hybrid display of HD-SDI and SD-SDI, saving of space and power can be done.

HDTV Studio image of this brochure are realized in corporation of SAI-NO-KUNI Visual Plaza and SKIP City corporation.

※ Data subject to change without notice.

ASTRO SYSTEMS, Inc.

www.astro-systems.com

● For more information, please contact us:

TEL: 818-848-7722 FAX: 818-848-7799
425 S. Victory Blvd., Suite A, Burbank, CA 91502 U.S.A.

Developed by ASTRODESIGN, Inc.

ASTRODESIGN, Inc.

www.astrodesign.co.jp

● For more information, please contact us:

Sales and Marketing Division
TEL: +81 (0)3-5720-5300 FAX: +81 (0)3-5720-6353
2-6-17 Haramachi, Meguro-ku, Tokyo 152-0011 Japan

Osaka Sales Office
TEL: +81 (0)6-6328-8558 FAX: +81 (0)6-6328-5058
1-18-27-1010 Higashi-nakajima, Higashi-yodogawa-ku, Osaka 533-0033 Japan

MONITOR2005-S03007E-2000-1

MONITOR LINE UP



HD/SD Supported LCD Monitor Wide Series

The DM wide series monitors are ideal for monitoring in a studio. Input signal supports 23 kinds of HDTV and SDTV image formats. The monitors come in a line up of 17, 23 and 32 inches to suit a wide variety of applications. Each monitor comes with a wide range of functions including Brightness, Contrast and Chroma-Level adjustments as well as Marker display. Furthermore the panel employs the new liquid crystal to display full screen hi-vision (16:9) and to offer high-brightness, high-contrast and a wide field of vision.

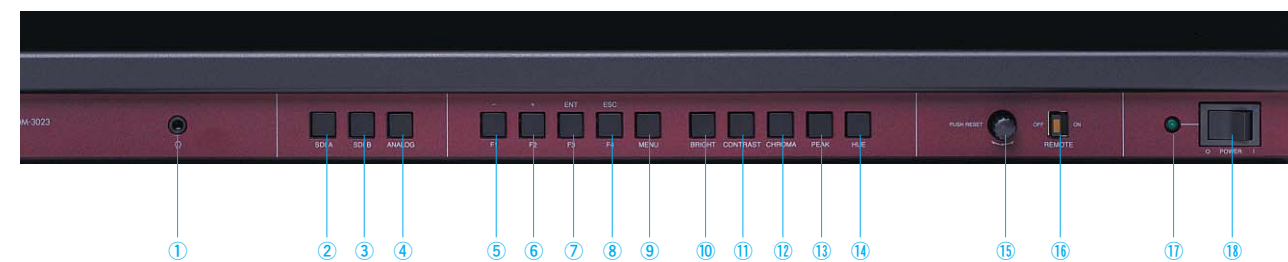


※Photograph shows Model DM-3023

Nomenclature

※Photograph shows Model DM-3023

Front



Front Switch Details

- | | | | |
|-----------------------|-----------------------|-------------------|------------------------|
| ① Headphone Jack | ⑥ Adjustment Switch/+ | ⑪ CONTRAST Switch | ⑰ REMOTE ON/OFF Switch |
| ② Input Switch/A | ⑦ ENT Switch | ⑫ CHROMA Switch | ⑱ POWER/LED |
| ③ Input Switch/B | ⑧ ESC Switch | ⑬ PEAK/HUE Switch | ⑲ POWER Switch |
| ④ Input Switch/Analog | ⑨ MENU Switch | ⑭ AUDIO Switch | |
| ⑤ Adjustment Switch/- | ⑩ BRIGHT Switch | ⑮ Adjustment Dial | |

Substantial High-Function Applicable for All Scenes

Liquid Crystal for High-Brightness and Wide Field of Vision

Employing the new liquid crystal, the monitors provide high-brightness, high-contrast and a wide field of vision. The field of vision extends 170 degrees horizontally and is ideal for a wide variety of applications.

Broad Range of Display and Adjustment Functions

The monitors come with brightness, contrast, macro, filter, monochrome, Y-gamma and life-size display and marker display functions.

Easy-to-Use Front Switches

Input channels, life-size display, monochrome, blue only and marker display can all be controlled in one touch of the front switches.

HD/SD Multi Format Compatible

HDTV comes in a variety of formats from 1080i59.94 to 720p24sF. Since the monitors support all formats, they are ideal for all production environments. The SDTV format is also supported in consideration for compatibility with conventional production environments.

Automatic Input Signal Recognition

Cumbersome settings are not needed as all input formats are automatically recognized and frame rates of 1/1.000 and 1/1.001 are also automatically distinguished.

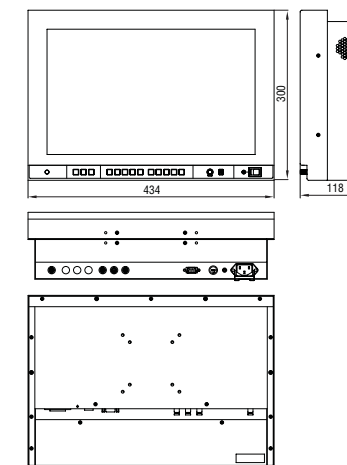
DM-3017 HD/SD Supported 17 inch LCD Wide Monitor



17 inch

- HD-SDI
- D1-SDI
- YPbPr
- COMPOSITE

※YPbPr input is optional.



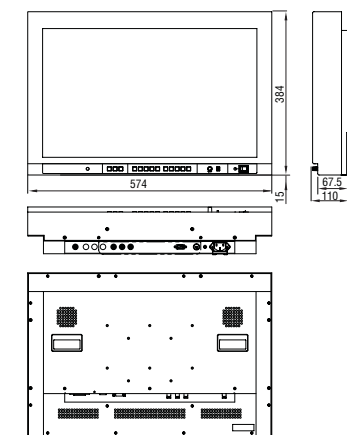
DM-3023 HD/SD Supported 23 inch LCD Wide Monitor



23 inch

- HD-SDI
- D1-SDI
- YPbPr
- COMPOSITE

※YPbPr input is optional.



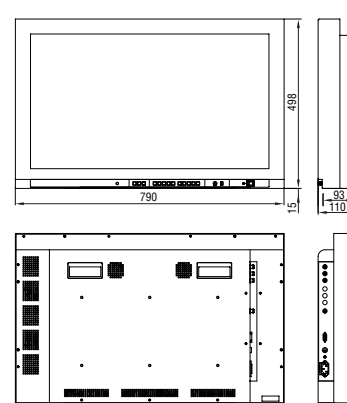
DM-3032 HD/SD Supported 32 inch LCD Wide Monitor



32 inch

- HD-SDI
- D1-SDI
- YPbPr
- COMPOSITE

※YPbPr input is optional.



LOCATION

► For sub-studio rooms, relay vehicles.



HD/SD Supported LCD Monitor

The DM series monitors are ideal for monitoring in a live setting, on location or in a studio, with high image quality, compact in size and convenient to carry. Input signal supports 23 kinds of HDTV and SDTV image formats. Furthermore the 6 and 8 inch models (DM-3009) can be used with industry camera batteries, allowing the camera to be taken into previously difficult places for easy image checking. Each monitor comes with a wide range of functions including Brightness, Contrast and Chroma-Level adjustment as well as Marker display. Furthermore the panel employs the new liquid crystal to offer high-brightness, high-contrast and a wide field of vision. The control switches have been renewed for easier operation.

Front Panel Nomenclature

① Power Switch / LED	⑥ 1/4-20UNC Screw Hole Mount	⑫ BRIGHT Switch
② Lock Switch / LED	⑦ INPUT Switch	⑬ CONTRAST Switch
③ Liquid-Crystal Display	⑧ MAG Switch	⑭ CHROMA Switch
④ TALLY 1	⑨ MONO Switch	⑮ Pb Switch
⑤ TALLY 2	⑩ MARKER Switch	⑯ Pr Switch
	⑪ MENU Switch	⑰ Adjustment Dial

※ Photograph shows Model DM-3005A

Substantial High-Function Applicable for All Scenes

Liquid Crystal for High-Brightness and Wide Field of Vision

Employing new liquid crystal, the monitors provide high-brightness, high-contrast and a wide field of vision. The field of vision extends 170 degrees horizontally and is ideal for a wide variety of applications (except for DM-3005A).

DC Power Unit for Energy Saving, Lightweight and Slimness

Since the monitors can be used with industry camera batteries, they can be taken into difficult places for easy image checking. Camera batteries also contribute to make the monitor compact, slim and lightweight.



Easy-to-Use Front Switches



Input channels, life-size display, monochrome, blue only and marker display can all be controlled in one touch of the front switches.

Broad Range of Display and Adjustment Functions

The monitors come with brightness, contrast, macro, filter, monochrome, Y-gamma and life-size display and marker display functions.

HD/SD Multi Format Compatible

HDTV comes in a variety of formats from 1080i59.94 to 720p24sF. Since the monitors support all formats, they are ideal for all camera hardware and production environments. The SDTV format is also supported in consideration for compatibility with conventional production environments.

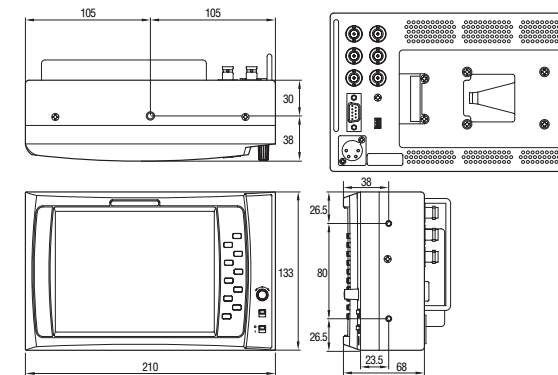
Automatic Input Signal Recognition

Cumbersome settings are not needed as all input formats are automatically recognized and frame rates of 1/1.000 and 1/1.001 are also automatically distinguished.

DM-3005A

HD/SD Supported 6 inch LCD Monitor

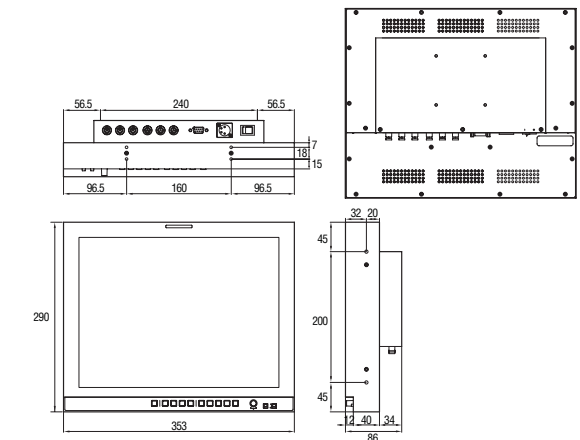
- 6 inch
- HD-SDI
- D1-SDI
- YPbPr
- DC Power Supply
- Battery Supportd



DM-3015B

HD/SD Supported 15 inch LCD Monitor

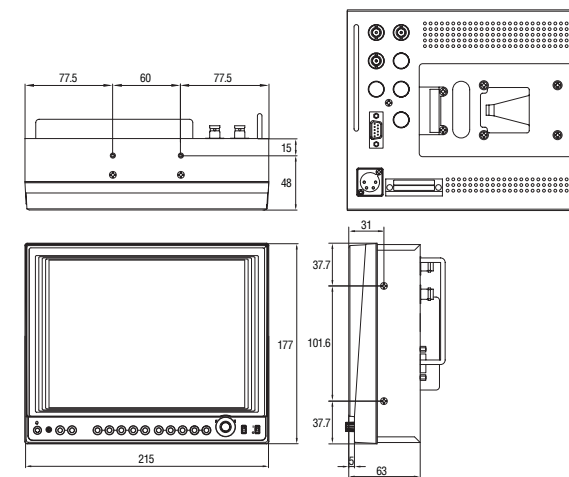
- 15 inch
- HD-SDI
- D1-SDI
- YPbPr
- DC Power Supply



DM-3009

HD/SD Supported 8 inch LCD Monitor

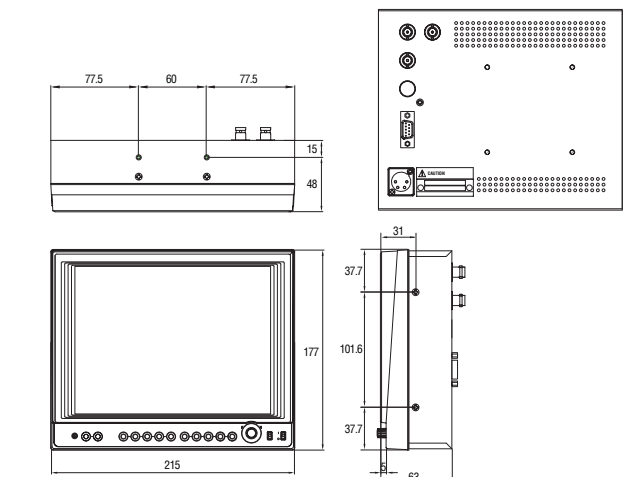
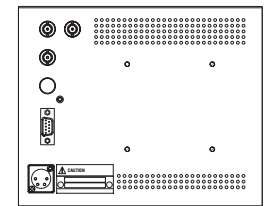
- 8 inch
- HD-SDI
- YPbPr
- DC Power Supply
- HD-SDI
- COMPOSITE
- Battery Supportd



DM-3010

HD/SD Supported 8 inch LCD Monitor

- 8 inch
- HD-SDI
- D1-SDI
- COMPOSITE
- DC Power Supply



Nomenclature

※ Photograph shows Model DM-3009

Front

- Display of Color-Space, Frequency, Format, and Input
 - Display of Frame Control (8bit) Processing / Monochrome Filter and ON / OFF Display for G.B.R.
 - Peaking / Y-Gamma Display, ON Display of V-Delay / H-Delay
 - Value Display for Brightness / Contrast Setting, and Pb (Cb) / Pr (Cr) Settings.
 - Marker Display, Mask-List Display, and Panel-Lock Display.
 - Display CRC Error Check, Time Code (VITC) of Y-Signal / Pb,Pr Signal.
 - Audio Level Display
-

※ Photograph shows Model DM-3005A

Rear

- ① Power Supply Connector
Canon Connector DC Power Supply Input Terminal (GND 1pin, DC IN 4pin)
 - ② SDI IN CH A
HD-SDI, SD-SDI Signal Input Terminal
 - ③ SDI IN CH B
HD-SDI, SD-SDI Signal Input Terminal
 - ④ Y IN
Analog Y/G Signal Input Terminal (In case of analog input, synchronizing with Y/G)
 - ⑤ Pb IN
HD-analog Pb/B Signal Input Terminal
 - ⑥ Pr IN
HD-analog Pr/R Signal Input Terminal
 - ⑦ MONITOR OUT
Output terminal for simple confirmation of SDI input signals. Outputs SDI-A image when SDI-A input is selected. Outputs SDI-B image when SDI-B input is selected. Outputs SDI-A image when analog input is selected.
 - ⑧ TALLY Connector
9-pin Sub-miniature-D (male)
 - ⑨ Terminal Selector Switch
Sets with or without 75Ω-analog signal terminal.
-

HD/SD 6 inch LCD Waveform Monitor WM-3004A-M

The WM-3004A-M is a top-grade liquid crystal waveform monitor. Multiple functions like image confirmation monitoring, waveform monitoring, vector scoping and audio level confirmation are provided for in a single unit. The monitor supports full HD format and SDTV (525i and 625i) format for input signals. The monitor can be used with camera batteries, making it possible to use the monitor in diverse environments. The monitor is ideal for monitoring in a live setting, on location or in a studio.

6 inch

- HD-SDI
- D1-SDI
- YPbPr
- DC Power Supply
- Battery Support

Front Panel Nomenclature

1 Power Switch / LED	6 Liquid Crystal Display	11 DISPLAY Switch	16 F2 Switch
2 Lock Switch / LED	7 TALLY 1	12 OVERLAY Switch	17 F3 Switch
3 Mode Switch	8 TALLY 2	13 FREEZE Switch	18 F4 Switch
4 Adjustment Dial	9 1/4-20UNC Screw Hole Mount	14 FUNC Switch	19 F5 Switch
5 Headphone Jack	10 INPUT Switch	15 F1 Switch	

Nomenclature

Front

- Color Space, Frequency, Format, Input Display
- Audio Level Display
- Picture Display
- CRC Error Check of Y-Signal / PbPr Signal, Time Code (VITC) Display
- Waveform Display
- Vector Display

Rear

- Power Supply Connector
- SDI IN CH A
- SDI IN CH B
- Y IN
- Pb IN
- Pr IN
- MONITOR OUT
- REF IN
- TALLY Connector
- Terminal Selector Switch

Substantial High-Function Applicable for All Scenes

Multi-Functional from Wave Patterns to Audio Confirmation

Equipped with various functions essential to conform to multifunctional HDTV images viewed at all angles. A signal monitor plays the role of multiple monitors.



DC Power-Supply Offers Power Saving Light Weight/Thin Construction

Batteries are very easily connected and the power consumption is as little as 25W (when HD-SDI is inputted). Employing L-sized camera batteries, this unit is still able to maintain its compact light weight.



NOTE: Batteries must be purchased separately if desired for the WM-3007 and WM-3007-T units.

HD/SD Multi-Format Supported

HDTV offers various formats ranging from 1080i59.94 to 720p24sF. Conforms to all formats, the monitor offers wide coverage without any limitations imposed by camera or production environment. Also supports SDTV format providing compatibility with conventional production environments.

Various Display Mode

It has not only a Waveform, a Vector scope, a Display of voice level, a Display of status and a Picture but also a overlay mode of waveform, vector and picture.

High Brightness Adopts Wide Liquid-Crystal Field of Vision

Problems viewing LCD screen panels are brought to a minimum when using our High Brightness Wide Liquid-Crystal Panels. Enabled to ease screen viewing, these units are also designed with power-saving and compactness in mind.

Auto-Tracing of Input Signals

Input signal supports 25 kinds of HDTV/SDTV(D1SDI) Image formats. No bothersome settings are required as the monitor supports auto-tracing of all input signals and distinguishes frame rates of 1/1.000 and 1/1.001 automatically.

Picture Mode

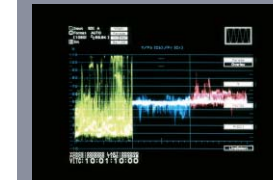


Displays a clear HDTV image in high-brightness / wide field of vision. Displays 4:3 and 2.35 Markers: 1 allows enclosure confirmation as desired.

Adjustment Function
Contrast / Brightness / Chroma Level / Y-Gamma / Filter / FRC

Display Function
Marker (Frame/CENTER/4:3/13:9/14:9/2:35: 1/1.85: 1/1.66: 1) Chroma ON/OFF.

Wave Form Mode



Performs highly accurate digital wave display on an arbitrary picture signal line. It is also possible to perform overlap display that allows picture signal confirmation while displaying a wave pattern.

Display Function
Parade Display (Y/Pb/Pr) / Line Selection (1H/2H) / Sweep (1F/2F) / GAIN (0.03-7.97) / MAG (x1/x2/x4).

Vector Scope Mode



Performs highly accurate digital vector display on an arbitrary picture signal line. It is also possible to perform overlap displays that allow picture signal confirmation while displaying vectors.

Display Function
Color Bar Scale (100% /75%) / IQ Axis Display / Line Selection (1H/2H) / MAG.

LOCATION

► For location shooting.



► For sub-studio rooms, relay vehicles.



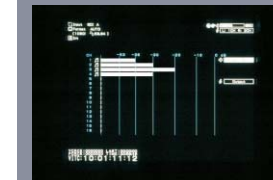
Status Mode



Displays digital data status values from an arbitrary sample line. It is also possible to perform overlap displays that allow picture signal confirmation while displaying status.

Display Function
EAV/SAV Display / Display Data Base Radix Conversion (Hexadecimal / Decimal / Octal / Binary) / Audio Status Display

Audio Status Mode



Displays embedded audio level with a highly accurate digital indicator. It is also possible to perform overlap displays that allow picture signal confirmation while displaying audio level.

Display Function
Audio Level Display (1-16 ch simultaneously) / Headphone Output

Fore images display mode



It has not only a Waveform, a Vector scope, a Display of voice level, a Display of status and a Picture but also a overlay mode of waveform, vector and picture.

Common Function for each mode

- Input Format Identification
- Freeze Function
- Tully Signal Identification
- Time Code Display
- Audio Level Display
- Desirable Display Color Setting (27 colors) and Brightness Setting for Cursor / Marker / Character / Wave Pattern / Vector
- ON/OFF of Cartoon Film Displays
- When HD-SDI input: CRCC error search function takes place

HD/SD 6 inch LCD Waveform Monitor **WM-3006**

HD/SD 8 inch LCD Waveform Monitor **WM-3007**

Portable, Flexible High Performance Waveform Monitor

The WM-3006/3007 is a portable waveform monitor compatible to all HDTV and SDTV formats used for the production of broadcast programs and digital cinemas. The display features a liquid crystal panel with a wide field of vision and high-contrast, enhancing visibility and making the monitor compact and lightweight. While HDTV peripheral devices are often heavy and expensive, the WM-3006/3007 offer excellent cost performance as well as mobility and stability with new designs in many parts. The basic functions include waveform display and vector display of input signals, while functions such as picture monitoring for real-time input image confirmation, audio level confirmation/monitoring of embedded audio superimposed to SDI signal are also available. For variety of production including terrestrial digital broadcasting, where HDTV format support (and digital cinema,) is a must, the newest monitor is optimum with a broad range of functions, providing mobility and flexibility to the production.



※Photograph shows Model WM-3006

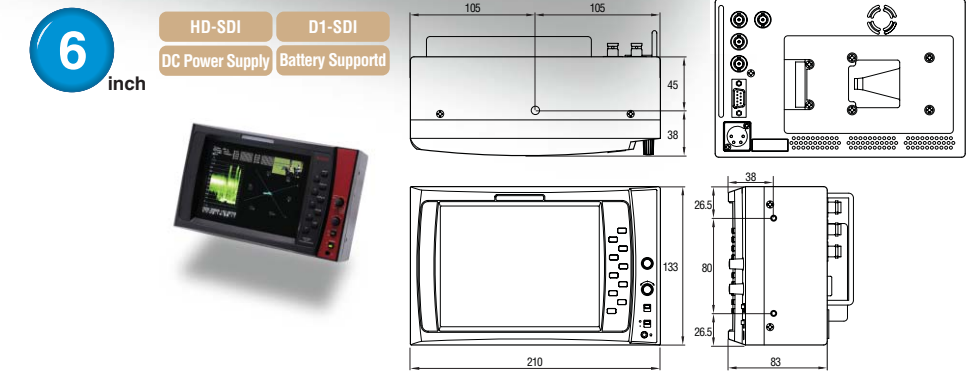
■Front Panel Nomenclature WM-3006/3007

- ① Power Switch / LED
- ② Lock Switch / LED
- ③ Mode Switch
- ④ Adjustment Dial
- ⑤ Headphone Jack
- ⑥ Liquid Crystal Display
- ⑦ TALLY 1
- ⑧ TALLY 2
- ⑨ 1/4-20UNC Screw Hole Mount
- ⑩ INPUT Switch
- ⑪ DISPLAY Switch
- ⑫ OVERLAY Switch
- ⑬ FREEZE Switch
- ⑭ FUNC Switch
- ⑮ F1 Switch
- ⑯ F2 Switch
- ⑰ F3 Switch
- ⑱ F4 Switch
- ⑲ F5 Switch



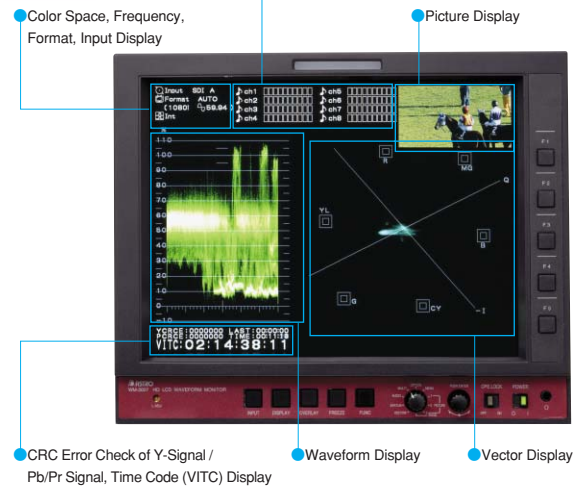
※Photograph shows Model WM-3007

WM-3006 HD/SD 6 inch LCD Waveform Monitor



Nomenclature ※Photograph shows Model WM-3007-T

Front



Rear

- ① Power Supply Connector
Canon Connector DC Power Supply Input Terminal (GND 1-pin, DC IN 4-pin)
- ② SDI IN CH A
HD-SDI, SD-SDI Signal Input Terminal
- ③ SDI IN CH B
HD-SDI, SD-SDI Signal Input Terminal
- ④ Y IN
HD-Analog Y-Signal Input Terminal (In case of analog input, synchronizing with Y)
- ⑤ Pb IN
HD-Analog Pb (Cb) Signal Input Terminal
- ⑥ Pr IN
HD-Analog Pr (Cr) Signal Input Terminal
- ⑦ MONITOR OUT
Output Terminal for simple confirmation of SDI Input Signals
Outputs image of SDI-A when SDI-A input is selected.
Outputs image of SDI-B when SDI-B input is selected.
Outputs image of SDI-A when analog is input.
- ⑧ REF IN
Reference Input Terminal (HD3 value SYNC only)
- ⑨ TALLY Connector
9pin Sub-miniature D (female)
- ⑩ Terminal Selector Switch
Sets with or without 75 analog signal terminal.

WM-3007-T HD/SD 8 inch LCD Waveform Monitor

