

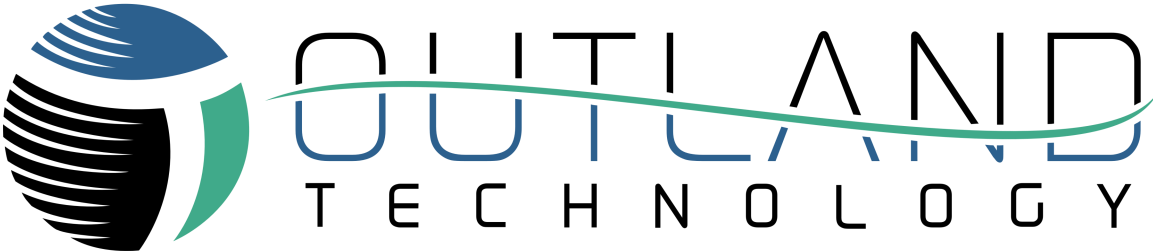


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OUTLAND TECHNOLOGY

STANDARD DEFINITION VIDEO SYSTEM
PRODUCT MANUAL



38190 Commercial Ct., Slidell, LA 70458 USA

Model # _____

Serial # _____

Date Purchased: _____

Notes: _____

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LIMITED WARRANTY

Outland has a strong commitment to high quality production. Each product has a twelve (12) month limited warranty against defects in workmanship or materials with the exception of those outlined in the limitations and exclusions. Outland will repair or replace at its discretion the defective components.

Limitations and Exclusions

- The limited warranty does not cover damage caused by improper use, poor maintenance or accidental damage of the product or its components.
- The limited warranty does not cover items subject to wear including but not limited to view ports, o-rings, umbilical and propellers unless found to be defective in workmanship and/or materials.
- The limited warranty does not cover any modification made to these products without authorization from Outland Technology Inc.
- The limited warranty does not cover lamps.
- The limited warranty does not cover components damaged due to incorrect power connection per user's manual.

The limited warranty does not cover items not actually built by Outland. Example (DVR recorder, Monitor etc.). Those items would be covered by the manufacturer's warranty.

Advertising claims made by us represent our honest opinion of the qualities and features offered by the products described. We disclaim any warranties expressed or implied, including warranties of merchantability and fitness for a particular purpose, except as provided herein. In no event shall Outland Technology be liable for consequential damages of any kind.

Shipping

- All returns for warranty service must be authorized by Outland. You must call or email Outland for a RMA# (Returned Materials Authorization) . The assigned RMA number which must be clearly indicated on each item returned for service.

For warranty shipping within the first 30 days, Outland will pay for ground shipment on domestic orders incoming and outgoing to a maximum of \$75.00 each way. International shipments will be credited up to \$75.00 US for incoming and outgoing freight charges to Outland Technology, Inc.

During the first 30 days of the warranty period, should faster delivery service be requested, a \$75.00 US credit towards expedited freight for each applicable leg will be given.

After 30 days the client is solely responsible for shipping to and from Outland Technology Inc.

Operating Instructions

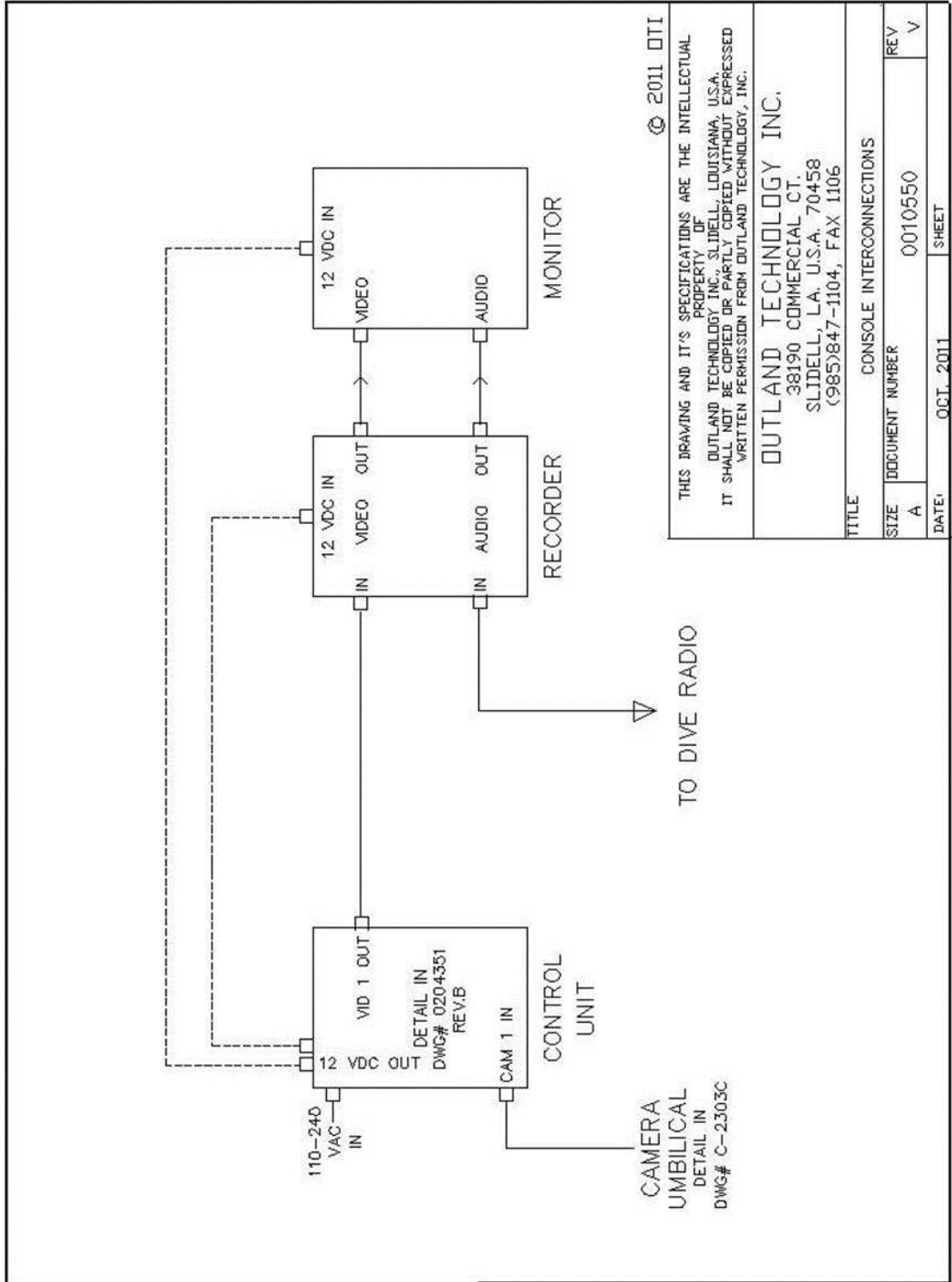
All connections from the Control Unit, DVR & Monitor, should already be connected. In the event there is a problem, drawing # 0010550 shows how those items connect.

Power requirements: 110VAC to 250VAC 50/60hz (DC versions 12 to 24 VDC)

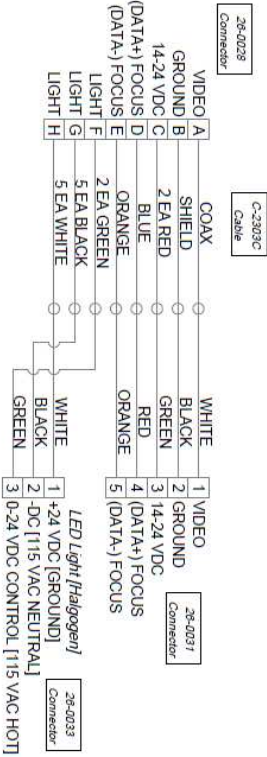
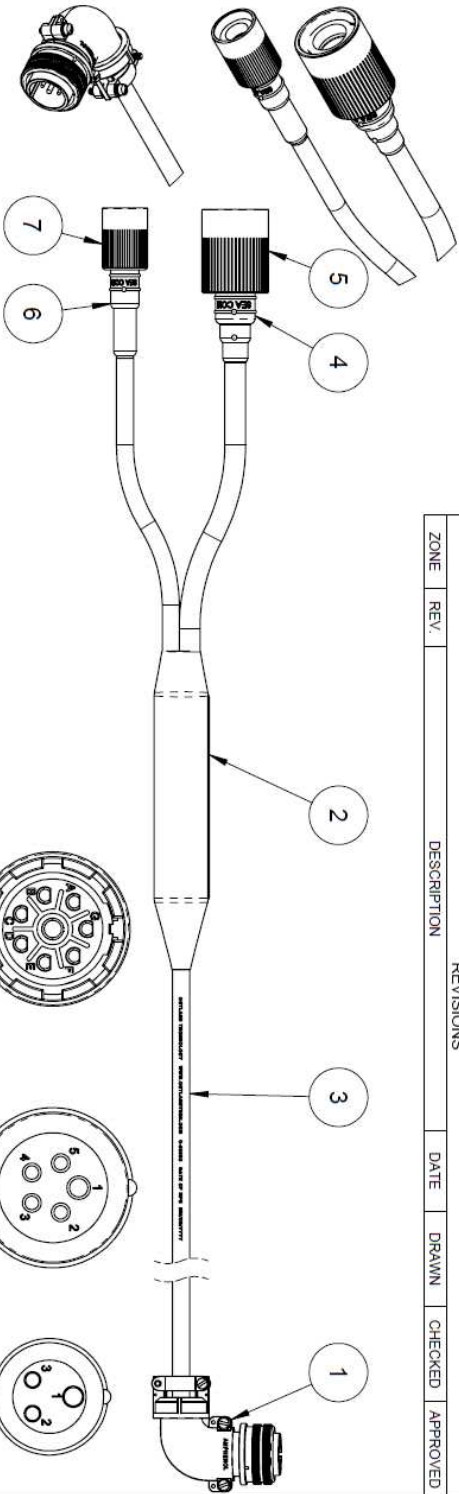
1. Plug divers side end of umbilical into camera and light (Be sure to use a good quality silicon grease for lubrication).
2. Plug topside end of umbilical into control unit connector on front panel.
3. After verifying input power is correct, ensure camera and light switches are in off position.
4. Plug console into power source.
5. Turn monitor, recorder and camera switches on. A picture should appear within a few seconds after the DVR has gone through a brief power up sequence.
6. Ensure "Light Intensity" is at "Min" position. Turn light switch on. Turn control up to test light. Turn back to Min. and Turn switch off.

CAUTION:

- If light is operated out of water, the housing may become hot to the touch. Light intensity will be automatically adjusted to prevent extreme overheating.
- When operating on AC power: Power source must be properly grounded. Use the green wire (provided) to ensure the console is properly grounded to earth.
- Console is NOT waterproof. Avoid exposure to rain, salt spray, waves, etc.



REVISIONS		DATE	DRAWN	CHECKED	APPROVED
ZONE	REV.	DESCRIPTION			



WIRING DIAGRAM

- NOTES:
- ASSEMBLE PER ASSEMBLY PROCEDURE: 41-0004

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	26-0028	Right Angle, 8-Pin Cable End Connector	1
2	82-F1 Splice	Straight Splice mold	1
3	C-2300C	Underwater Video & Light Cable	1
4	26-0031	Connector Cable 5 Pin Female RMK-5-FS	1
5	26-0029	Female Locking Sleeve 1.45" O.D.	1
6	26-0033	Connector Cable 3 Pin Female RMG-3-FS	1
7	26-0030	Female Locking Sleeve 0.99" O.D.	1

THIRD ANGLE PROJECTION



PROPRIETARY AND CONFIDENTIAL

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ISSUE DATE	2/2/2017
DESIGNED	S.MAYFIELD
MODELED	S.MAYFIELD
DRAWN	S.MAYFIELD
CHECKED	A.KAY
APPROVED	C. DAUSSIN
MATERIAL	N/A
SURFACE TREATMENT	N/A
WEIGHT (POUNDS):	0.836

TITLE

DIVER CAMERA AND LIGHT CABLE



OUTLAND TECHNOLOGY INC.
38190 COMMERCIAL CT. SLIDELL, LA 70458 U.S.A.
(985) 947-1104
WWW.OUTLANDTECH.COM

SIZE MODEL NUMBER
A C-2303

SCALE: 1:1 ASSY NUMBER:

SHEET 1 OF 1

UWC-325/P

Underwater Camera



MECHANICAL:

Diameter.....1.62 in. (41 mm)
 Length (excluding connector)......5in. (127 mm)
 Weight in air.....9.8 oz. (0.28 kg)
 Weight in seawater.....3.1 oz. (0.09 kg)
 Depth Rating.....6560 ft. (2000 m)
 Housing Material.....Delrin
 Port Material.....Acrylic

ELECTRICAL:

Input Voltage.....12-24 VDC
 Power.....110 mA @ 12 VDC

CONNECTOR:

Standard Connector.....XSK-5-BCL
 Mate for Standard Connector.....RMK-5-FS

PINOUT:

1. (White) Video
2. (Black) Ground / Common
3. (Green) Power (+)



OPTIONS:

- CCIR (PAL) Format (UWC-325/P/E)
- Customer-specified connector

MODEL #	UWC-300 (Black & White)	UWC-325 (Color)
Image Device	1/3" CCD Sensor 411,000 pixels	1/3" DSP CCD Sensor 412,000 pixels
Sensitivity	0.0003 lux	0.001 lux
Resolution	600 horizontal lines	750 horizontal lines
Lens	3.6 mm, F1.2, E-Iris	
Zoom	None	
Focus	Fixed	
Standard Format	NTSC	
Horizontal FOV	70 degrees in water	

UWL-401

Underwater Light



**CAUTION: EXTREMELY BRIGHT
DO NOT LOOK DIRECTLY INTO LIGHT!**

MECHANICAL:

Diameter.....1.62 in. (41 mm)
Length (excl. connector).....4 in. (102 mm)
Weight in air.....7.7 oz. (0.22 kg)
Weight in seawater.....2.8 oz. (0.08 kg)
Depth Rating.....6560 ft. (2000 m)
Housing Material.....Anodized Aluminum
Port Material.....Glass

ELECTRICAL:

Input Voltage.....24 VDC
Power.....20 Watts

LIGHT PROPERTIES:

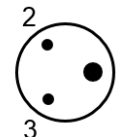
Light Output.....960 lux @ 1 m
(2150 lumens; Equiv. to 150 Watt Halogen)
Color Temperature.....3000K
Beam Angle.....100 degrees

CONNECTOR:

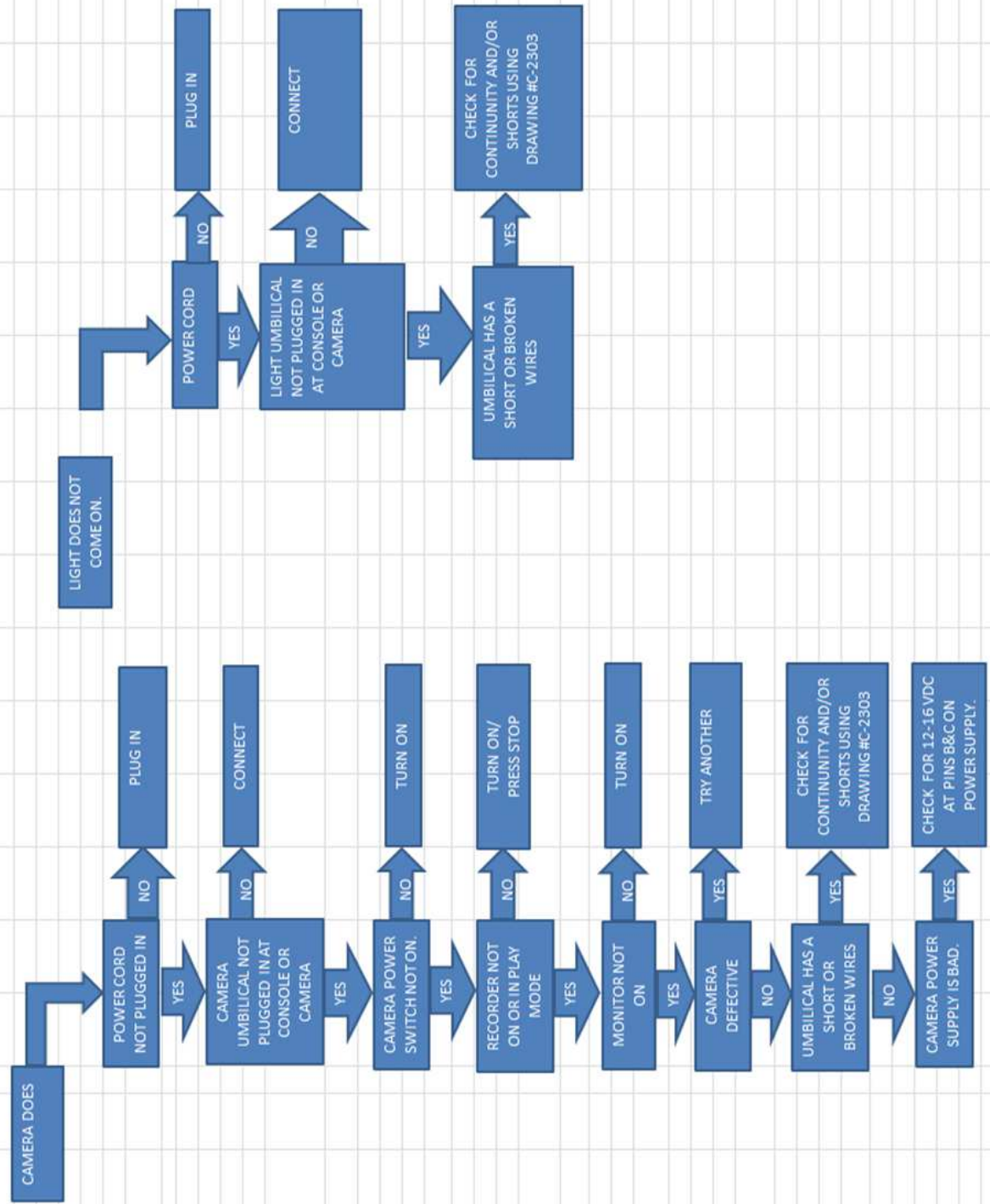
Standard Connector.....XSG-3-BCL
Mate for Standard Connector.....RMG-3-FS

PINOUT:

1. Power (+)
2. Ground / Common
3. 0-24 VDC Control



TROUBLESHOOTING GUIDE



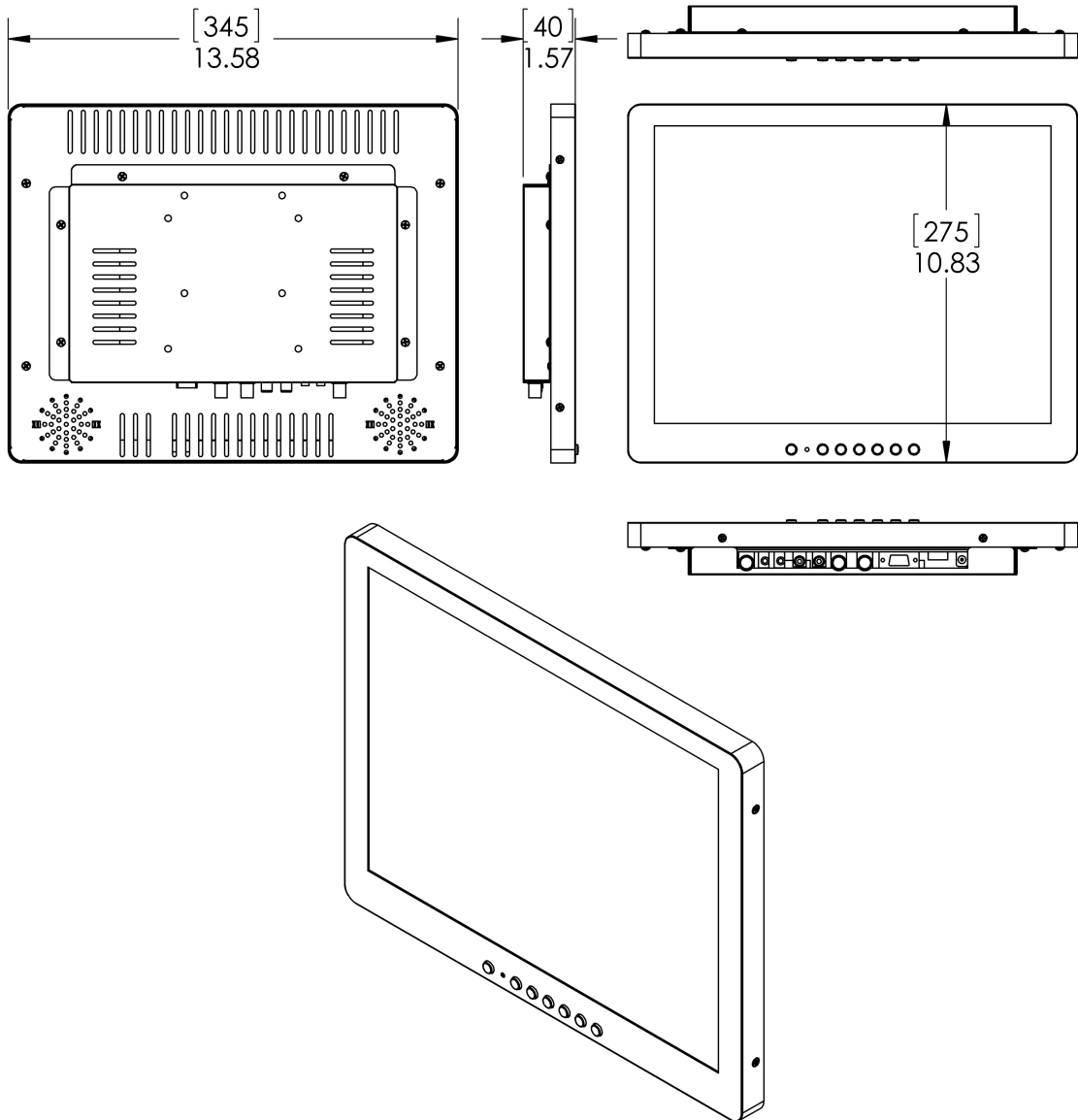
15" Sun Readable Monitor - Open Frame

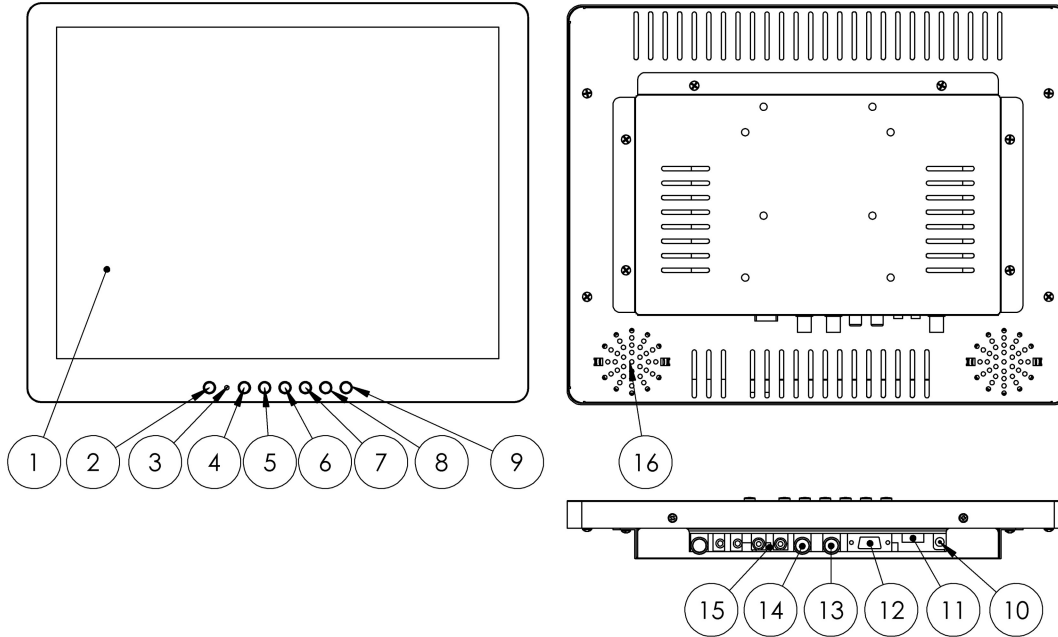


- High resolution 1024 x 768
- 16.7M colors for true color rendition
- Multiple inputs - composite video, D-sub, HDMI
- Contrast ratio of 700:1
- Brightness of 2000cd/m²
- Wide viewing angle
- On-screen menu display for feature and video adjustments
- Speaker

	Screen size	15" (Diagonal)
Display	Brightness	2000cd/m ²
	Contrast ratio	700:1
	Max resolution	1024(H) x 768(V)
	Colors	16.2M / 262K colors
System	Compatibility	PC: VESA standard VGA to XGA 60Hz Video: NTSC, PAL, SECAM (auto detection)
	Frequency	Horizontal: 31.5 ~ 37.5 KHz / vertical: 56 ~ 75Hz
Input	Input signal	Analog RGB, CVBS, HDMI
	Input connectors	D-sub for RGB, RCA for CVBS, HDMI
Output	Speaker	Max 2W x 2
	OSD controls	Auto adjust, brightness, contrast, size, position, color control, language selection, OSD position, video control, input selection
	Plug & Play support	DDC 1/2B
Power	Power management	VESA DPMS
	Power consumption	Normal mode: T.B.D / DPMS mode: < 4Watts
	Power supply	Input: AC100 ~ 240V, 50 ~ 60Hz Output: DC12V, 4A
Environments	Temperature	Operating: 0°C ~ 50°C (32°F ~ 122°F), Storage: -20°C ~ +60°C (-4°F ~ +140°F)
	Humidity	Operating: 30% ~ 60%, Storage: -5% ~ +70%
	Dimensions (mm)	(345W) x (275H) x (40D)

Monitor Dimensions:





1.) LCD Panel

It supports 1024 x 768 resolution

2.) Power Button

Turn on/off power of monitor

3.) LED

Indicates system status

4.) Source

Change a mode to video / PC / HDMI and exit menu

5.) +

Change to set value of selected item in the OSD menu

6.) -

Change to set value of selected item in the OSD menu

7.) Down

Press to use select items in the OSD menu

8.) Up

Press to use select items in the OSD menu

9.) Menu (dual function)

Display a main menu on screen and select sub menu

10.) 12 volt DC Input

Use this connection for power input

11.) HDMI Input

Uses HDMI cable to connect to HDMI output port of external device/

12.) D-Sub Input (RBG input Port)

Uses D-Sub signal cable to connect to PC

13.) Video 1 Input

CVBS video input (analog in)

14.) Video 2 Input

CVBS video input (analog in)

15.) Audio Input

Connect to audio out from external device for use in D-sub, Video 1 & Video 2 video inputs

16.) Speaker

Picture	PC	Sound	System
Contrast	Contrast	Sound mode	OSD H-position
Brightness	Brightness	Bass	OSD V-position
Hue	H-position	Treble	OSD duration
Saturation	V-position	Balance	OSD halftone
Sharpness	Clock		Information
Color tone	Phase		Backlight
Aspect ratio	Color mode		Memory recall
Overscan	Scale		
Picture mode	Auto		

Operation

Factory reset: OSD menu > system > memory recall > + button

Press Menu button to activate OSD menu screen.

OSD is changed consequently as below when press UP/DOWN continuously.

Picture or PC → **Sound** → **System**

- Press menu key to exit menu.

OSD Button Operation & Location



Name	Description
Power button	Monitor Power on / off
Up / down	Increase / decrease the value of brightness adjustment Select the function icon (highlighted icon) and sub item on GUI
Video source	Switch from HDMI, VGA, CVBS input signal
Menu	Pop-up OSD menu & OSD menu exit
Decrease / increase	Increase / decrease value of volume adjustment select the OSD sub item & change value of OSD sub item
LED	LED status: GREEN = normal operating, RED = standby mode POWER OFF: LED off

Monitor GUI Settings



Video Overlay Settings

```

                                MENU
R      Reset (Clear) Page
E      Edit Page
<Esc> Exit Edit Mode
S      Setup
1-9    Page (Current: 1)
                                CAMERA CONTROL
◀ ▶   Pan
▲ ▼   Tilt
Z X   Zoom
F C   Focus
A     Autofocus
M     Select Camera (Current: 1)
                                Version C 2.3.2
```

Press “H” on keyboard to enter help menu.

This screen will show all commands available.

```

                                SETUP
1: Time
2: Date
3: Date Format
4: Keyboard Version (US,UK)
5: Data Position
6: Comm Setup
7: Transducer Setup (0 psi)
8: Zero Depth
9: Change Video Format
0: Change Font
```

Press “S” on keyboard to enter setup menu.

Then select an option to set up the specified function.

**Data Position Setup
(option 5 from Setup menu)**

Select a field (A-O)

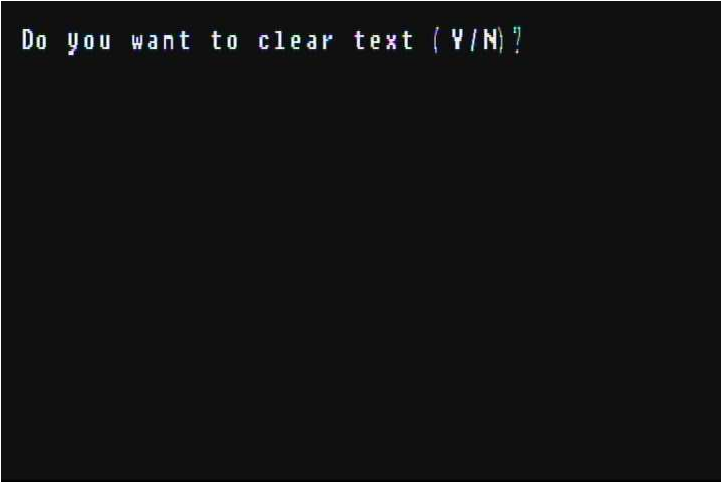
**Then select a variable (0-5)
from the list to insert into
that field**

```
---Empty---          [B]:Time  
[C]:Empty           [D]:Date  
[E]:Empty           [F]:Empty  
  
      Select Data for Position A  
  
          [0]:Empty  [6]:DSV  
          [1]:Time  
          [2]:Date  
          [3]:Depth  
          [4]:CP1  
          [5]:CP2  
  
[G]:Empty  [H]:Empty  [I]:Empty  
[J]:Empty  [K]:Empty  [L]:Empty  
[M]:Empty  [N]:Empty  [O]:Empty
```

**Press “E” to edit text.
Cursor will appear and you
will be able to type on screen.**

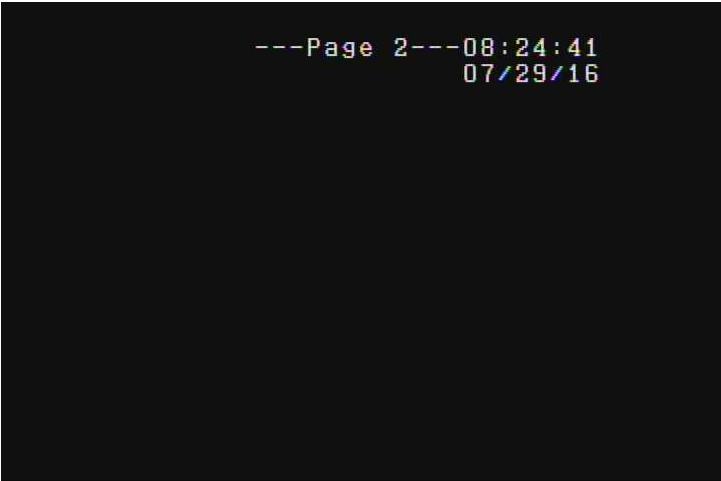
**Move cursor by using arrow
keys. Press “Esc” when
finished.**

```
Example Text_
```



Do you want to clear text (Y/N)?

Press “C” to clear text.



---Page 2---08:24:41
07/29/16

**Press 1-9 to change the
current page of text.**

Setup Pressure Transducer* (option 7 from Setup Menu)

Follow on screen commands to
suit your specifications.

*only applies to systems using an Outland smart
camera system

Select Water Type
1:Freshwater 2:Saltwater

Select Unit of Measurement
1:Feet 2:Meter

Zero Depth? [Y]es [N]o

Are you sure?(Y/N)

DC Models

- A) Any video system with a ".../DC" in the model# can be powered by 12 VDC or 100-240 VAC 50/60 hz.
- B) The 12 VDC input can be used as a battery backup to the AC input power. Just connect the DC power and operate with the AC as usual. If AC power goes out the DC input battery will take over without hesitation.
- C) Connect the + (plus) lead to the RED wire
And the – (negative) lead to the BLACK wire.
(CON-3300 shown below, connections are similar on other models)



Camera and Light Mounting Options



DHM-60



HM-300

