Warranty Information

For technical support: Call: **(888) 941-3060**
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BOYO®
VISION

User's Manual

VTM7012FHD/VTM9003FHD

Please read the instruction manual completely before use and retain it for future reference

Product Features

Feature	VTM7012FHD	VTM9003FHD
Size	7" HD LCD	9" HD LCD
Resolution	1024 x 600	
Aspect Ratio	16:9 wide screen	
Video Inputs	3 (Ch1, Ch2, Ch3)	
Audio Inputs	2 (Ch1, Ch2)	
Display Triggers	3 (Ch1, Ch2, Ch3)	
Video Signal	1080P AHD/720P AHD/CVBS - Auto Switch	
Video System	PAL / NTSC - Auto Switch	
Speaker	Built-in	
Mirror Image	Selectable for each channel	
Parking Guidelines	Selectable for each channel	
Trigger Delay	Configurable	
Screen Flip	Horizontal / Vertical Flip	
Auto Dimming		Yes
Remote Control	Included	
Max. Current	< 500mA @ 12VDC	
Operating Power	12 ~ 24 VDC	

Before Installation

- Please check contents.
- Perform bench test. Ensure the product is working before installation by connecting the monitor and the camera to 12VDC.
- Perform pre-install test, before mounting the monitor and the camera. In very rare instances, a running engine causes interference.
- All issues should be resolved. So, when the monitor and the cameras are mounted, wires are run and the power is turned on, and a problem is encounter, it will be easy to troubleshoot the problem.

System Setting

1) **LANGUAGE**

    English is the default. Japanese, Korean, Russian, and Chinese are available.

2) **AUTO DIM**

    VTM9003FHD feature. When turned on, the screen brightness dims under low ambient light.

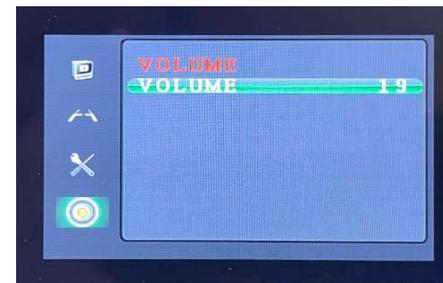3) **UPSIDE DOWN**

    Vertical display flip on or off

4) **MIRROR**

    Horizontal display flip on or off. Used when a normal camera is used as a backup camera. When a 'normal' camera is directed toward rear, an object on the front-right side of the camera will show on the right side of the display screen. Turn the mirror 'ON' to display the object on the left side of the screen, like mirror.

5) **VCOMDC**

    When too much backlight come through the LCD, the black screen with no image will look grey, not black. Decrease the value. It controls amount backlight passes through LCD.
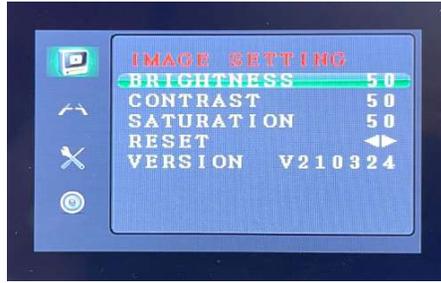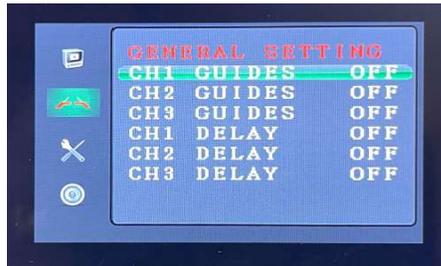
VOLUME Setting

1) **VOLUME**

    Adjust speaker volume

Image Setting

1) **BRIGHTNESS, CONTRAST, SATURATION**
   Control display brightness and color
2) **RESET**
   Reset the system to factory default
3) **VERSION**
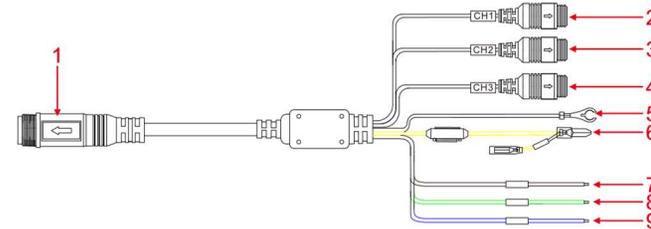   The system version number

General Setting

1) **GUIDELINES**
   Turn on or off the parking assist guidelines. Normally used with the backup camera.
2) **DELAY**
   Off or set between 1~10seconds. The delay setting determines the number of seconds the video channel will stay on after trigger line goes off. If the system is set off, then the monitor will return to the previous state immediately once the trigger is turned off. If delay is set 2s, then the monitor will return to the previous state 2s later after finished reversing.

Contents

Sunshade

1 x 4-Pin to RCA Adapter

Monitor

Power Harness

Remote Control

Wiring

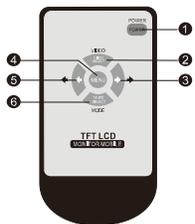| 1	Black	14-PIN	power cable connector	
2	Black	4-PIN male	AV CH1 Input	AHD 1080P, AHD 720P, or CVBS
3	Black	4-PIN male	AV CH2 Input	AHD 1080P, AHD 720P, or CVBS
4	Black	4-PIN male	V CH3 Input	AHD 1080P, AHD 720P, or CVBS
5	Black	Wire	GND	
6	Red	Wire	ACC	DC 12-24V positive pole
	Yellow	Wire	Battery	DC 12-24V positive pole
7	Brown	Wire	CH1 Trigger	DC 12-24V positive pole
8	Green	Wire	CH2 Trigger	DC 12-24V positive pole
9	Blue	Wire	CH3 Trigger	DC 12-24V positive pole

A trigger wire is normally connected to a backup light, the left turn signal, and the right turn signal. When a trigger wire becomes hot, it will display the video input channel associated with the trigger.

Buttons & Sensors

		Default	Menu Mode
①	▼☼		Down: move down in the menu setting
②	MENU	Enter OSD Menu Mode	Next OSD Menu Item
③	☼▲		Up: move up in menu setting
④	⏻	Power: short press to turn on or off	
⑤	CH 1	Display Channel 1	Decrease Value
⑥	CH 2	Display Channel 2	Increase Value
⑦	CH 3	Display Channel 3	
⑧		Remote control sensor	
⑨		Dimmer sensor	
⑩		Bracket knob	

Remote Control

❶ Power key: short press to turn on or off
❷ VIDEO key: CH1, CH2, CH3 video channel switching, to move up in menu setting
❸ Right key: increase volume, increase analog value in the menu setting
❹ MENU key: menu
❺ Left key: decrease volume, decrease analog value in the menu setting
❻. MODE key: image mode switching, to move down in menu setting

Operations: Using the Buttons

Default Mode

	Press Button
To turn the display on or off	⏻
To display channel 1	CH 1
To display channel 2	CH 2
To display channel 3	CH 3

OSD Setting Mode

Press MENU (menu) to enter the OSD setting mode.

Repeated pressing of "MENU" button will cycle through

➠ Image Setting
➠ General Setting
➠ System Setting
➠ Volume Setting

To change the values:

1. Press MENU (MENU) button to get to the right settings
2. Press ▼☼ (down) or ☼▲ (up) button to select the rows
3. Press CH 1 (decrease) or CH 2 (increase) to "decrease" or "increase" value or to turn "on" or "off"
4. Press MENU (MENU) button to save new settings