

Operating Instructions



Model: M150-WL

2.4G Digital 7 Inch Wireless Color LCD Monitor

Please read this manual thoroughly before operating the device, and keep it for future reference.

Contents

1. Precautions	1
2. Features	3
3. Technical Specifications	3
4. Accessories	4
5. Parts Identification	5
6. Remote Control Operation	6
7. Basic Operation	8
8. Menu	9
(1) Picture	9
(2) Option	11
(3) System ·····	12
(4) Auto Scan ·····	13
9. Troubleshooting	13

1. Precautions

Storage and Keeping

- 1. Do not expose the monitor to excessive heat or cold. The storage temperature of this device is -30~+80°C, and the operating temperature is -20~+70 °C. The humidity is RH90%.
- Never use this device near a bathtub, wash basin, kitchen, damp basement, swimming pool or similar places.
- 3. Never use this device in environments with excessive moisture, dust or smoke.
- 4. Avoid dropping or striking this device.
- Avoid using this device in enclosed spaces, areas with excessive vibration or subject to severe impacts.
- 6. Never puncture, scratch or use abrasive cleaning materials on this device.
- 7. Do not place cables where they may be pinched or stepped on.
- Leave at least a 2" space between the monitor and walls, cabinets or other objects to allow adequate air circulation around the device.
- 9. The monitor is not designed to be waterproof.

Operating Precautions

1. The device may be powered by a 12 or 24 volt automotive battery or vehicle electrical system

2. Make sure all cables are connected properly. Observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the device.

A Warning!

1. High voltage is present within the monitor. The opening of the case should be by professionals.

2. Do not watch the video while driving unless you are monitoring the rear view camera display.

▲ Special Notice

Occasionally, a few highlights or dark spots may occur on the LCD screen. This is a very common phenomenon in active matrix display technology, and doesn't necessarily indicate any defects or faults. Never try to repair this device by yourself. In case of any problems, please turn off the display at once and notify our company or authorized dealer. The monitor is a complex device. Any disassembly or modification may lead to damage and void the warrantee.

Maintenance

- 1. Remove all the cable connections from the monitor before cleaning the device.
- Use a mild household detergent and clean the unit with a slightly damp,soft cloth. Never use strong solvents such as thinner or benzine, as they might damage the finish of the device.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user not to waste electrical and electronic equipment.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your warrantee and neccessitate expensive repairs.

Declaration of conformity



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

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(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Features

- 1.TFT LCD monitor with wide angle view and high resolution display.
- 2. Picture image may be adjusted for Horizontal, Vertical, Mirror and Normal viewing.
- 3.Select from 8 languages for user operation.
- 4. Automatic back lighting for buttons.
- 5.Full-function remote control.
- 6.Multiple video formats: PAL/AUTO/NTSC.
- 7.Up to 4 wireless camera input, 1video output and 1 audio output.
- 8.Operates from 10 -32V. Supports 12V or 24V automobile battery.
- 9. On-board speaker.
- 10.Automatic scanning function.
- 11. The scale can be adjusted for left, right, up and down.
- 12. Automatically switches to back-up, left, right or front camera views.

3. Technical Specifications

- 1. Product: 7" Digital TFT- LCD Color monitor with built-in 2.4GHz wireless receiver.
- 2. Resolution: 800 x 3 (RGB) x 480
- 3. Contrast: 500:1
- 4. Brightness: 400cd/m2.
- 5.Viewing angle: U: 50 / D: 60, R/L: 70
- 6. Operation Frequency: 2400-2483.5MHZ
- 7. Line of Sight Range: 120M
- 8. Receiving Sensitivity: -78dBm
- 9. Video Codec: MPEG4
- 10. RF Band Width: 5MHZ
- 11. Frame Rate: PAL: 25f/s NTSC: 30f/s
- 12. Output Power: 18dBm
- 13. Spread Spectrum: FHSS
- 14. Hopping Rate: 1200/S
- 15. Delay: 200ms
- 16. RF Bit Rate: 6Mbps
- 17. Audio output: 1.5W
- 18. Loudspeaker: one 15x24mm round loudspeaker
- 19. Power supply: Automobile storage battery (10-32V)
- 20. Power consumption: about 8W
- 21. Outer dimension: 182mm (W) × 122mm (H) × 43mm (T)
- 22. Operating temperature: -20~+70°C,RH90%
- 23. Storage temperature: -30~+80°C,RH90%



All specifications are subject to change without notice.

4. Accessories

Center mount bracket	U- Support bracket
Angle adjustment screws	Sun shield
e lo	
Power cable	IR Remote control

▲ Special Notice

Accessory supply may be different for different application.

5. Parts Identification





6. Remote Control Operation



- 1. Please align the remote control with the infrared-receiving window on the monitor to operate.
- 2. Never disassemble the remote control or allow it to drop, or become wet.
- 3. Press the control buttons firmly. Allow 2 seconds for the picture to change.

- MUTE (Mute): Press to select ENABLE/MUTE sound.
- POWER(Power switch) Press to turn on/off the monitor .
- Sector Characteristic (Horizontal Turning of Picture): Press to turn picture horizontally.
- \oint (Vertical Turning of Picture): Press to turn picture vertically.
- CH+ (Channel Selection+): Press to select the upper setting.
- CH- (Channel Selection-): Press to select the lower setting or to display the scale.
- < 0 :
 - Press to decrease Brightness.



Press to increase Brightness.



MENU : Press to show menu.



MODE (Picture Mode):

Press to select different picture modes(PERSONAL / STANDARD / SOFT / VIVID / LIGHT).



Press to display video channel source

TIMER:

Press to set the time to shut down monitor (10,20,30,40,50,60,70,80and max 90 minutes).



LANG(Language Selection):

Press to select language display of English, Deutsch, Français, Español, Português,

Italiano, Nederlands or Русский options.



Press to select PAL / AUTO / NTSC.

SEL

Press to select CAM channels

7. Basic Operation



7.3. Reversing Display:

7.3.1. When the white wire is connected to the positive wire of the left turn light, the monitor automatically switches to CAM1 (left side camera) when the left turn indicator is activated.

7.3.2. When the blue wire is connected to the positive wire of the right turn light, the monitor automatically switches to CAM2 (right side camera) when the right turn indicator is activated.

7.3.3. When the brown wire is connected to the positive wire of back-up light, the monitor automatically switches to CAM 3 (back-up camera) when the back-up light is turned on. The distancing grid will also be displayed.

7.3.4. When the green wire is activated, the monitor automatically switches to CAM4

	CAM1
	CAM2
<u> </u>	CAM4

8. Menu

Press MENU to display the following options and settings:

- 1. PICTURE
- 2. OPTION
- 3. SYSTEM
- 4. AUTO SCAN

(1) Picture

BRIGHT,CONTRAST, COLOR, VOLUME, AUTO DIM and SCALE ADJUST options will display on the screen as illustrated below:

Press CH- to select BRIGHT.

PICTURE	
BRIGHT	50
CONTRAST	50
COLOR	50
VOLUME	50
AUTO DIM	OFF
SCALE ADJUST	OFF

Press $\triangle \bigcirc / \nabla \bigcirc$ to adjust the brightness level.

• When auto dim is turned on in dark environment, OSD turns into dim mode for dim setting; When auto dim is turned on / off in bright environment, OSD displays normal mode.

PICTURE	
DIMBRIGHT	40
DIVIBRIGHT	40
DIM CONTRAST	45
DIM COLOR	40
VOLUME	50
AUTO DIM	ON
SCALE ADJUST	OFF

PICTURE	
BRIGHT	50
CONTRAST	50
COLOR	50
VOLUME	50
AUTO DIM	ON
SCALE ADJUST	OFF

Dim mode

Normal mode

Press CH- to select SCALE ADJUST.

PICTURE	
BRIGHT	50
CONTRAST	50
COLOR	50
VOLUME	50
AUTO DIM	OFF
SCALE ADJUST	OFF

Press $\Delta \bigcirc / \nabla \bigcirc$ to select $\uparrow \downarrow$ or \leftrightarrows for scale adjustment.



When exit menu and press CH- to display the grid line.



to adjust the scale left/right.

(2) OPTION

LANG, SCALE, CAM1, CAM2, CAM3, CAM4, PAIRING , options display on the screen as illustrated below :



Press CH- to select LANG.

OPTION	
LANG	ENGLISH
SCALE	ON
PAIRING	OFF
CAM1	NORMAL
CAM2	NORMAL
CAM3	NORMAL
CAM4	NORMAL

Press ∆ ஜ́: /⊽ஜ́: to select English, Deutsch, Français,Español,Português, Italiano, Nederlands or Русский.



OPTION	
LANG	ENGLISH
SCALE	ON
PAIRING	OFF
CAM1	NORMAL
CAM2	NORMAL
CAM3	NORMAL
CAM4	NORMAL

Press $\Delta \langle \ddot{Q}; / \nabla \langle \ddot{Q} \rangle$ to select ON / OFF. Scale refers to the reversing distance indicator displayed on the monitor.

 Firstly press SEL to choose the channel to be paired, secondly press CH- to select PAIRING.

OPTION	
LANG SCALE	ENGLISH
PAIRING	OFF
CAM1	NORMAL
CAM2	NORMAL
CAM3	NORMAL
CAM4	NORMAL

Press $\triangle \bigcirc / \nabla \bigcirc$ to select OFF/ON.

When turn on the PAIRING function, the screen will display "PAIRING START". When it counts down 50 seconds.





• Long press the "PAIR" on the camera for 5 seconds.



The screen shows "SAVE DATA" and picture, then code matching succeeds.



If code matching doesn't complete in 50 seconds, the screen will show "PAIRING FAIL" to tell you that code matching fails and you need to try again. Other channels can be paired in the same way above.

(3) System

COLOR-SYS, HORIZONTAL, VERTICAL, ZOOM functions will display on the screen as illustrated below :

Press CH- to select COLOR-SYS .

SYSTEM	
COLOR -SYS	AUTO
HORIZONTAL	\$
VERTICAL	+ ₩
ZOOM	16:9

Press $\Delta \bigcirc /\nabla \odot$ to select PAL / AUTO / NTSC.



Press CH- to select ZOOM.

SYSTEM	
COLOR -SYS HORIZONTAL VERTICAL	PAL \$ ↑↓
ZOOM	16:9

Press $\triangle \bigcirc$ / $\nabla \bigcirc$ to select 16:9 or 4:3.

(4) Auto Scan

AUTO SCAN, SCAN TIME, CAM1, CAM2, CAM3 and CAM4 options display on the screen as illustrated below:

Press CH- to select SCAN TIME.

AUTO SCAN	
AUTO SCAN	OFF
SCAN TIME	6S
CAM1	OFF
CAM2	OFF
CAM3	OFF
CAM4	OFF

Press $\triangle \bigcirc$ / $\nabla \bigcirc$ to select 6S~90S.

9. Troubleshooting

The symptoms described below do not necessarily mean a failure within the display. Please check the following items before you initiate request for repair.

Symptoms	Possible Causes/Solutions
No picture, no sound	Improper connection of automobile adapter. Use of un- authorized power supply. Power switch is on OFF position.
No picture	Check whether AV cable is properly connected.
No sound	Check whether audio wire is properly connected or the sound volume is turned off or set too low.
Dark picture	Check whether brightness and contrast are adjusted correctly; Check whether the environments temperature is too low.
No color	Adjust the color settings.
Upside down or lateral inverted picture	Use the remote control horizontal /vertical selection switch to set proper orientation
No reversing function (i.e.Picture)	The black wire of the monitor AV cable to the reversing light may be loose. The red wire from the monitor may be loose.