



# 7" TFT DIGITAL LCD Monitor

for MXN-HD7DM - Owner's Manual

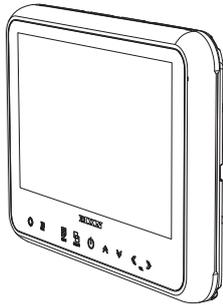
# · I · N · D · E · X ·

<b>Package Contents</b>	<b>03</b>
<b>Operation</b>	<b>04</b>
<b>System Setting</b>	<b>05</b>
Function	05
Picture	06
Camera Set up	06
Normal/Mirror	07
Auto Picture Scan	07
Camera Trigger	08
Distance Marker Adjust	09
Scan ON/OFF Function	10
Lock ON/OFF Function	10
<b>Connection</b>	<b>11</b>
<b>Installation</b>	<b>12</b>
Monitor installation with Stand bracket & Sunvisor	12
Installation of heavy duty mounting brackets	13
<b>Specification</b>	<b>14</b>

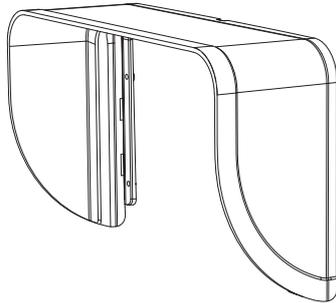




# PACKAGE CONTENTS



MONITOR



SUNVISOR



SUNVISOR SCREWS



CABLE CLIP



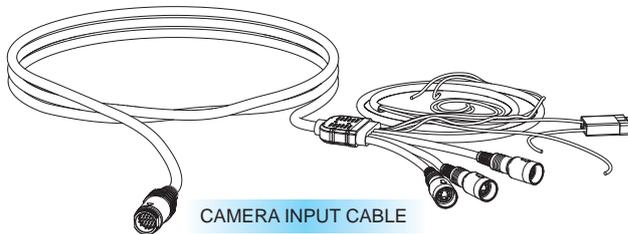
BRACKET SCREWS



STAND BRACKET



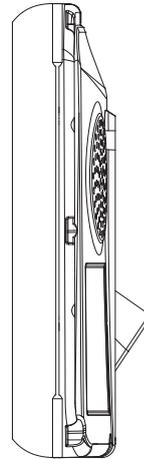
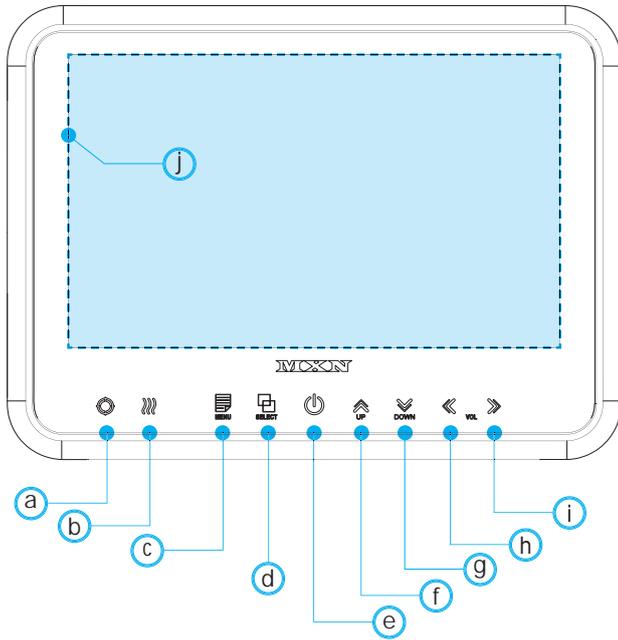
MANUAL



CAMERA INPUT CABLE

ITEM	Q'TY
MONITOR	1
SUNVISOR	1
SUNVISOR SCREW	4
STAND BRACKET	1
BRACKET SCREW	3
CABLE CLIP	2
CAMERA INPUT CABLE	1
MANUAL	1

# OPERATION



## A. DAY/NIGHT SENSOR (CDS)

Automatic brightness control sensor.

## B. HEATER LAMP

Orange color will be illuminated in case heater function is activated.

## C. MENU

Press **[MENU]** button for system setting.

## D. SELECT

Press **[SELECT]** button to select the respective camera channel. (CAM1-CAM2-CAM3-CAM1..)

## E. POWER

Press **[POWER]** button to turn on/off the monitor.

## F. UP

Press **[UP/DOWN]** button to navigate the menu for system setting.

## G. DOWN

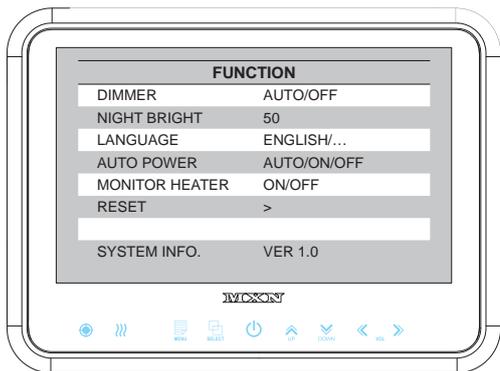
## H. LEFT

Press **[LEFT/RIGHT]** button to adjust monitor volume. Use **[LEFT/RIGHT]** button to change **OSD** setting during system setting.

## I. RIGHT

## J. VIEW AREA

# SYSTEM SETTING



## RESET

Press >> button to go the factory default setting.

## SYSTEM INFO.

Refers to system information of the monitor.

## FUNCTION

### DIMMER (Automatic Brightness Control)

Select **AUTO** or **OFF** to have Automatic or Manual brightness of the monitor.



**REMARK:** By activating **DIMMER AUTO** function, the monitor adjusts the brightness according to the environment.

### NIGHT BRIGHT (Brightness during night conditions)

Select the DIMMER to 「**AUTO**」 and adjust the value of the backlight into the required setting. During night conditions the backlight will automatically perform brightness according this setting.

### LANGUAGE

Provide 6 Multi-lingual OSD [ENGLISH, SWEDISH, DANISH, NORWEGIAN, DUTCH, FINNISH].

Select the preferred **LANGUAGE**.

### AUTO POWER

Select monitor activation function as below.

**[AUTO]** Monitor keeps the last setting in memory.

**[ON]** Monitor starts up 「**Power-ON**」 mode automatically.

**[OFF]** Monitor starts up 「**Stand-By**」 mode automatically.

### MONITOR HEATER

Select **MONITOR HEATER 「ON」** to have automatic heating function in order to enable fast picture start during extreme cold weather condition.

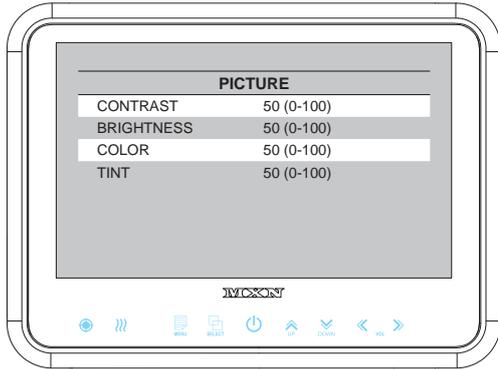


**Remark:** During **MONITOR HEATER ON** mode,

Heating activates automatically when the temperature of inside monitor is below 0 degree Celcius.

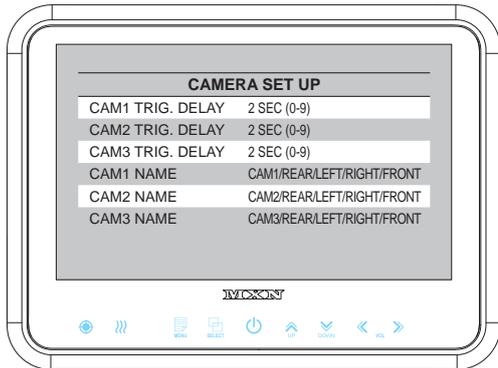
When the temperature of inside monitor is over 0 degree Celcius, heating stops automatically.

# SYSTEM SETTING



## PICTURE

Press [LEFT/RIGHT] button to adjust preferred **PICTURE** of the monitor.



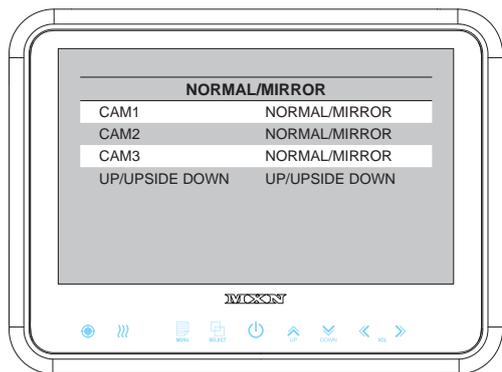
## CAMERA SET UP

### TRIG. DELAY

When a **TRIGGER** wire is connected to a pulse DC power signal (e.g. direction indicator lights) then the [TRIGGER DELAY] function avoids repeating **ON/OFF** of the monitor.

### CAMERA NAME

**CAMERA NAME** can be selected as **CAM1, 2, 3/REAR/LEFT/RIGHT/FRONT**.



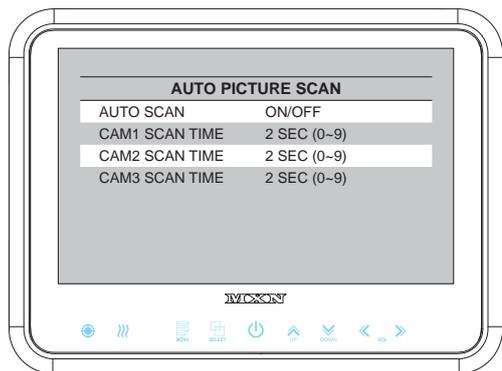
## NORMAL/MIRROR

### NORMAL/MIRROR

Each camera picture (CAM1/CAM2/CAM3) can be switchable as **NORMAL/MIRROR** image.

### UP/DOWN

Camera pictures can be switchable as **UP/DOWN** image.



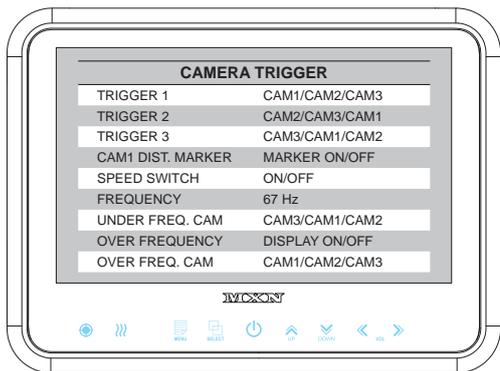
## AUTO PICTURE SCAN

Each scanning time of CAM1/CAM2/CAM3 can be selected.

**REMARK:** If the **SCAN TIME** is set as 「0」, monitor skips its channel during the scanning.

Press [**UP**] button for 4 seconds to **ACTIVATE/INACTIVATE** auto scanning function.

# SYSTEM SETTING



## CAMERA TRIGGER

TRIGGER 1/2/3 (Trigger source selection)  
Select the required trigger source at CAM1/CAM2/CAM3.

### REMARK

TRIGGER PRIORITY: TRIGGER 1 > TRIGGER 2 > TRIGGER 3

### CAM1 DIST. MARKER

Select **ON** to have distance marker (parking line) for **CAM1**.  
Distance marker is displayed as soon as **TRIGGER 1** signal is activated.

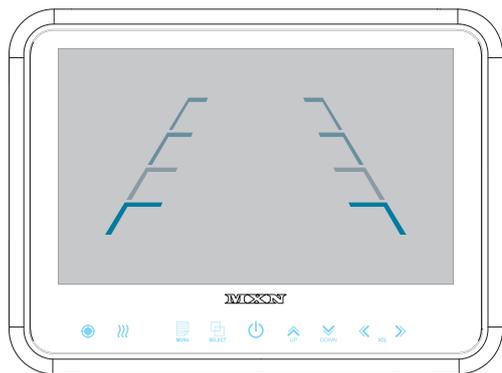
### SPEED SWITCH

The orange wire needs to be connected with the vehicle's tacho signal and via **MENU** the **SPEED SWITCH** needs to be selected **ON**.

At **FREQUENCY** 67Hz setting (and most common used tacho signal) the selected camera will be displayed during a speed of 0~33km/h. Select the concerning camera via 『**UNDER FREQUENCY CH.**』 (At different type tacho signals the **FREQUENCY** needs to be adjusted into higher or lower value than this example)

Over 33km/h (72Hz) the selected camera will be switched **OFF** automatically. When the speed slows down, then the selected camera will be switched **ON** automatically again at 30km/h. Instead of automatic switch **OFF** at a speed over 33km/h it is also possible to activate another video source, such as a navigation picture from an optional navigation computer. In this case user needs to select 『**OVER FREQUENCY DISPLAY:** **ON**』 and user needs to select 『**OVER FREQUENCY CH.**』

In case of **TRIGGER** activation during 『**SPEED SWITCH ON**』 mode, then **TRIGGERS** 1~ 3 will overrule 『**SPEED SWITCH**』 function.



## DISTANCE MARKER ADJUST

User can adjust location of distance marker.

At Power **ON** mode, select distance marker by pressing [**UP/DOWN**] buttons.

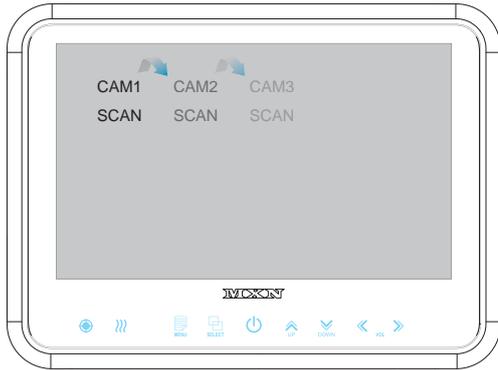
When color of distance markers is seen as **RED** color, user can adjust the lines **UP/DOWN** or **LEFT/RIGHT**.

When both color of distance markers are seen as **RED** color, both lines can be adjusted **LEFT/RIGHT**.

When left color of distance marker is seen as **RED** color, left line of distance marker can be adjusted **LEFT/RIGHT**.

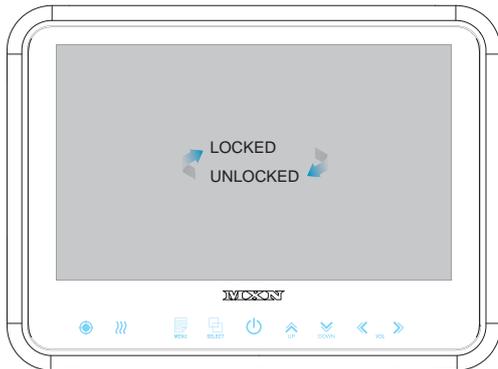
When right color of distance marker is seen as **RED** color, right line of distance marker can be adjusted **LEFT/RIGHT**.

# SYSTEM SETTING



## SCAN ON/OFF FUNCTION

At **Power-ON** mode, hold [**UP**] buttons pressed for 4 seconds to activate Auto Scan Picture function.  
During the auto scanning mode, press [**UP**] button for 4 seconds to inactivate Auto Scan Picture function.



## LOCK ON/OFF FUNCTION

**LOCK ON/OFF FUNCTION**  
The set up menu can be locked as prevention against unauthorized users.

### LOCK ON mode

At **Power-ON** mode, hold [**DOWN**] button pressed for 10 seconds to set up **LOCK ON** function.

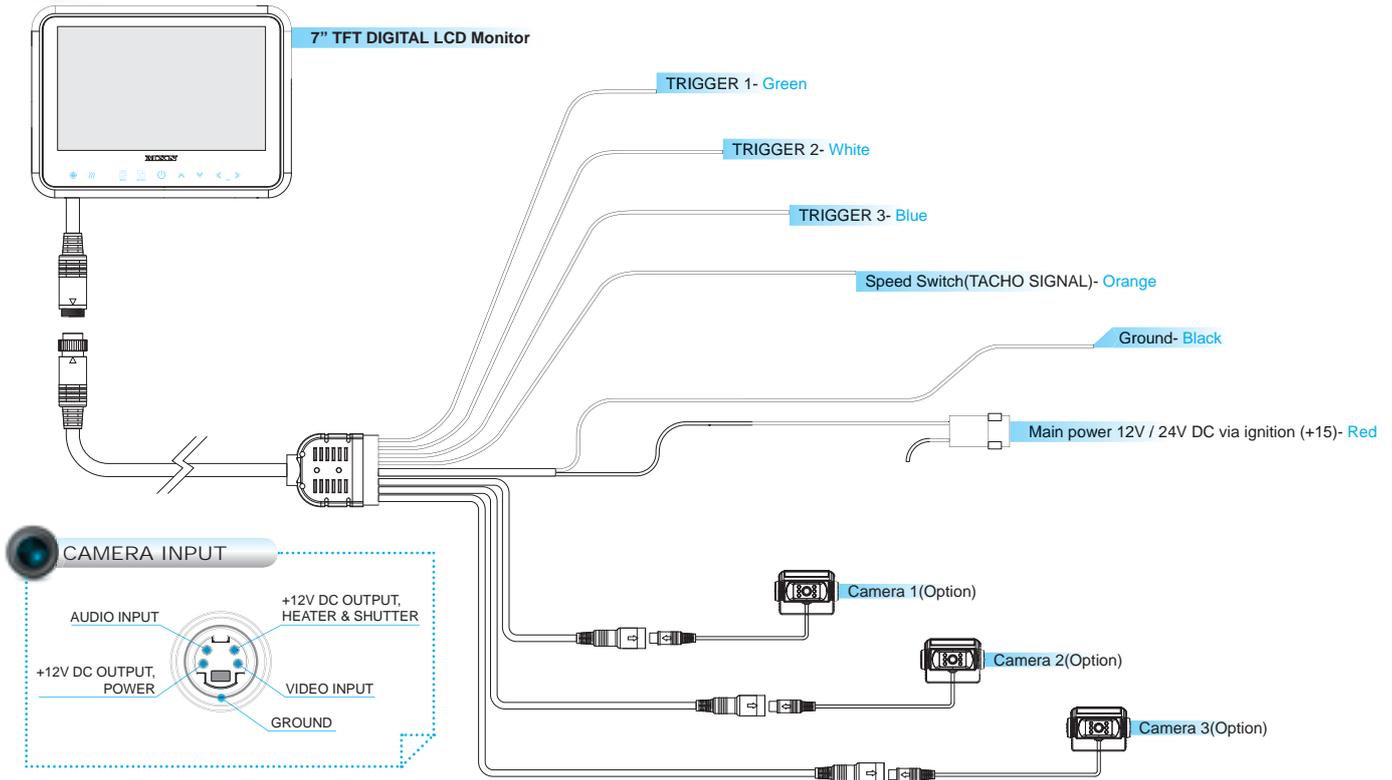
When [**LOCKED**] is displayed on the screen, user can use [**POWER, SELECT, VOLUME**] buttons only and use can do setting for **PICTURE** menu.

### LOCK OFF mode

At **Power-ON** mode, hold [**DOWN**] button pressed for 3 seconds to set up **LOCK OFF** function.

When [**UNLOCKED**] is displayed on the screen, user can use all functions of the set up menu.

# CONNECTION

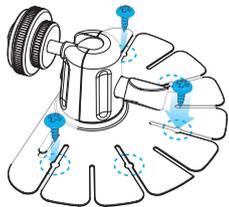


# INSTALLATION

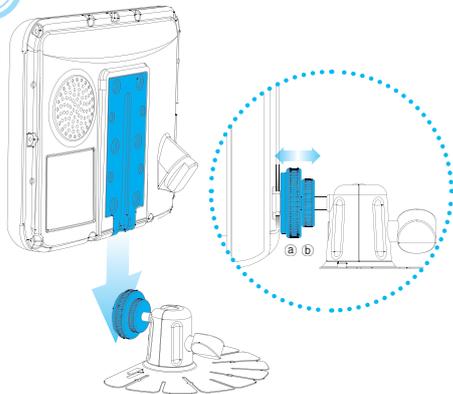
## MONITOR installation with STAND BRACKET & SUNVISOR

- A Remove a protection tape and attach **STAND BRACKET** into stand place, then fix it with the supplied screws.
- B Connect **STAND BRACKET** with monitor and adjust height/angle.
- C Attach **SUNVISOR** to the **MONITOR** and fix it with the supplied screws.
- D Connect **CAMERA INPUT CABLE** to the **MONITOR**.

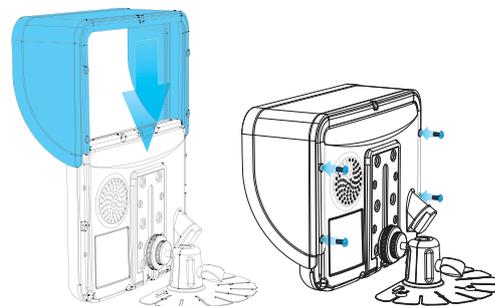
A



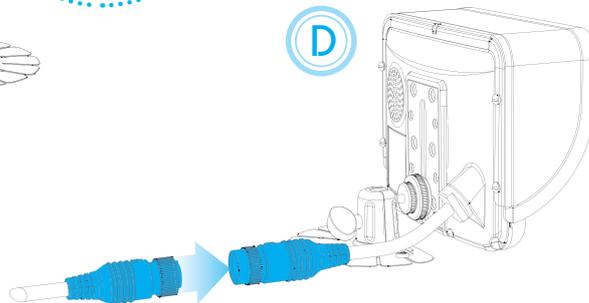
B



C



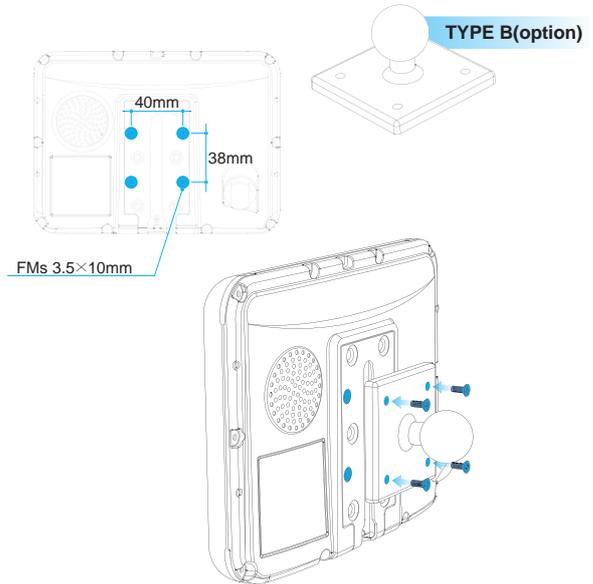
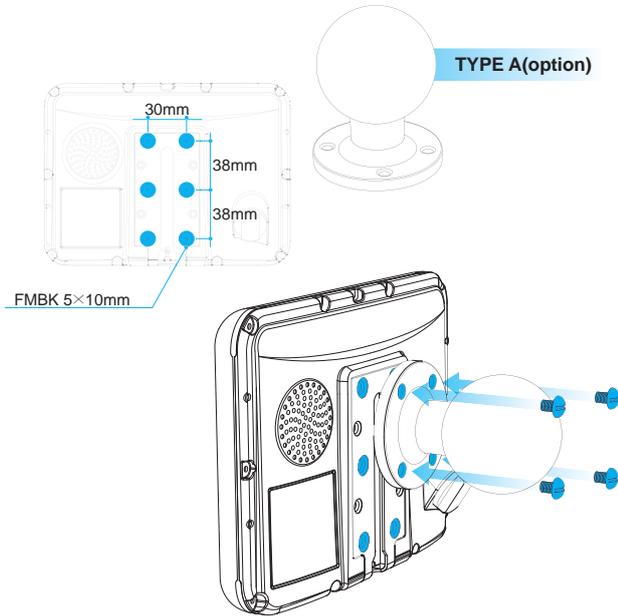
D



## Installation of heavy duty mounting brackets

**MONITOR** can be connected with different type of heavy duty mounting brackets.

Please check the compatibility in advance, then please follow installation as described below.





# SPECIFICATION

ITEM	SPECIFICATION
<b>LCD Screen Size</b>	7" Wide Diagonal
<b>Dimensions</b>	190(W) × 142(H) × 42.85(D)mm
<b>Display dimensions</b>	152.4 × 91.44mm
<b>Power Input</b>	DC 12 to 30 Volt Free Input
<b>Power Consumption</b>	12 Watt Max.
<b>Video System</b>	NTSC / PAL / SECAM Auto Detection
<b>Sync. System</b>	Internal
<b>Brightness</b>	500 cd/m <sup>2</sup>
<b>Display Resolution</b>	800 × 480 pixel
<b>Viewing Angle</b>	Top: 50.    Bottom: 60.    Left: 65.    Right: 65.
<b>Color Configuration</b>	RGB Stripe
<b>Dimmer</b>	Automatic / Manual
<b>Speaker Impedance</b>	8 ohm, 0.3 Watt Max.
<b>Operating Temp.</b>	-25°C ~ +75°C
<b>Storage Temp.</b>	-30°C to + 85°C
<b>Impact Rating</b>	4G
<b>Camera Connector</b>	4-pin mini DIN (MXN configuration)
<b>Housing</b>	Soft black(Al12)
<b>ON-Screen Display Control Functions</b>	Volume · Brightness · Color · Contrast · Tint · CAM Screen 1/2/3 · CAM Trigger 1/2/3 · Heater · Speedswitch · Auto Power · Distance marker · Auto Picture Scan · Dimmer · Language · Direction · Reset.
<b>Supplied Accessory</b>	Die-Cast Mounting Bracket / 1 pce, Screw Kit / 1set, Manual, Sun Shield / 1 pce, Power cable / 1 set
<b>Weight</b>	790g





# 7" TFT DIGITAL LCD Monitor

for MXN-HD7DM - Owner's Manual