



TM Series  
LCD Touchscreen Monitor  
Panel Mount Type

## Instruction Manual

7.0" Wide  
TMG-W207-1211-01

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Appendix: Outline drawing

# 1. Introduction

Thank you for choosing Seedsware products.

Please read this manual carefully and use the product correctly.

Product will be referred to as TM hereinafter.

# 2. Notes





- Reproduction and/or duplication of this product and/or this manual, in any form, in whole or in part, without permission is strictly prohibited.
- Contents of this product and/or this manual are subject to change without previous notice .
- Although all efforts have been made to ensure the accuracy of this product and/or the contents of this manual, should you notice any errors or have any questions, feel free to contact and notify us.
- Seedsware shall not be held liable in any way for damages or losses, nor be held responsible for any claims by a third party as a result of using this product.

# 3. Precautions for Safe Use

Precautions are noted in this manual in order for the product to be used safely. Read this manual along with other related manuals carefully to understand the correct handling and functions of the TMG7.







## Safety Symbol Legends

Safety symbols listed below are noted throughout this manual for the TMG7 to be used correctly and safely. These symbols stand for very important safety information as noted below:





 Warning	Indicates a procedure, condition, or statement that, if not strictly observed, could result in severe human injuries or loss of life.
 Caution	Indicates a procedure, condition, or statement that, if not strictly observed, could result in human injuries or property damage.
	Indicates a procedure, condition, or statement that is strictly prohibited for correct use of the equipment. (Forbidden)
	Indicates a procedure, condition, or statement that should be strictly followed for correct use of the equipment. (Mandatory)

## WARNING




### **Warnings for Design**

-  Designing switches that might cause human injuries and/or property damage on the touchscreen is strictly prohibited. Unintentional output signals due to malfunction of the main body, units, and/or cables can cause serious injuries. Design the system so that switches with major functions are equipped on devices other than the TM itself.
-  Designing safety related switches on TM is prohibited. Switches related to safety, such as emergency stop switches, should be made on a different hardware.
-  Do not use TM as a major warning system that may cause injuries/serious material damages, and or production stoppage. Control devices related to critical warning displays and warnings should be structured on an independent, redundant hardware system or a mechanical interlock.
-  TM is not intended for use for aircraft equipment, aerospace instruments, trunk line communication equipment, nuclear power control equipment, and medical equipment that concerns life support, and or other equipment that concerns high reliability and safety. It cannot be used for these purposes.
-  When using the TM for purposes that concern high reliability and safety functions and accuracy such as transport equipment (trains, automobiles, ship, etc.), crime/disaster prevention devices, various safety devices, and medical equipment that does not concern life support, be sure to have safety features including redundancy and false operation prevention measures incorporated into the entire system.
-  Display will black out when the backlight goes out. If mistakenly operated in this condition, it might result in improper operation. Do not design touch-switches that might cause human injuries and material damages on the TM.

### **Warnings for Handling**

-  Do not modify/disassemble the TM. It may cause fires and/or electric shocks.
-  Do not use around flammable gas. It may cause explosions.
-  Do not put any kind of liquid, such as water, and metals into the product. It may cause fire and/or electrical shocks.
-  In an event abnormality is detected such as smoke, unusual odor or abnormal noise, pull the power plug and discontinue use. If continued use, it may cause fire or electrical shocks.

### **Warnings for Wiring**

-  For wiring and installation, please refer to the manual and specifications in order to conduct it correctly. It may cause fires and/or electric shocks when not done properly.
-  Before installing the power cable, make sure power is not being supplied from power source. It may cause electrical shock if not followed.
-  Do not use power voltage other than what is specified. It may cause fires and/or electric shocks.

## CAUTION

### **Cautions for Disposal**

- ❗ When disposing the product, please treat it as industrial waste.

### **Precautions for Safe Use**

- ⊘ Do not press the display with strong pressure or hard objects. It may break the LCD panel and cause injuries.
- ❗ Please use this product within the specified ambient temperature and humidity range. If not used properly, it may cause malfunctions.
- ⊘ Do not press down on the display area of TM with sharp objects such as mechanical pencils or drivers. It may damage the display.
- ❗ If the surface of TM gets dirty, wipe with a dry, soft cloth dampened with a neutral detergent then wrung dry. Do not use thinner or organic solvents.
- ⊘ Do not use in areas where rapid temperature change can cause condensation. It may cause malfunctions.
- ⊘ In order to prevent product temperature from rising, do not use in areas where heat can be trapped. Also prevent storing in areas of high temperature.
- ⊘ Do not use or store TM in locations exposed to direct sunlight, fine particles, oil smoke and steam.
- ⊘ Do not use or store all precision equipment including the TM where shock or vibration can be applied.
- ⊘ Do not use or store in areas where gasified chemicals are diverged into the air, or where chemical contamination can occur.
- ❗ When using power source with slow rise-time and fall-time, it may not operate correctly. Be sure to drop the voltage to 0V when turning the power back on after once turning off the power, before turning on the power. It may not boot correctly.

### **Handling of LCDs**

- (1) The LCD display contains skin-irritating materials. If liquid materials flow out due to damage and comes in contact with skin, wash the area under water for at least 15 minutes and consult a doctor.
- (2) The LCD display might have uneven brightness according to the contents being displayed. This is not a malfunction.
- (3) Minute spots (dark or bright) may occur in the LCD display elements. This is a basic characteristic of the LCD display and not a malfunction.
- (4) When LCD display is viewed outside the specified view angel, the color might seem different. This is a basic characteristic of the LCD display and not a malfunction.
- (5) When displaying a same image for a long period of time, it might cause an image lag. This is a basic characteristic of the LCD display and not a malfunction.

In order to avoid image lags, change the image displayed periodically and avoid displaying the same image for a long period of time.

### **Handling of Projective Capacitive Touchpanels**

- (1) If elements that change ambient environments or electric fields (capacitors with large capacity, power units, and materials with high permittivity such as metals) are set close to the product, it might have impact to the coordinate detection. Make sure to keep a good distance from the above unstable elements as much as possible when designing.
- (2) The touchpanel surface is made of glass. Glass is subject to break once scratched. Please handle with care and avoid glass from coming in contact with other glass and hard objects.
- (3) Touchscreen may not operate correctly when there is moisture on the surface.  
When moisture is detected on the touchpanel surface, please wipe dry before use.
- (4) When designing applications, consider the fact that area slightly outside the display might be read as a coordinate due to the characteristics of the touchpanel.

## 4. Model

7" Wide

- Projective Capacitive Touch Screen Monitor  
TMG-W207-1211-01

## 5. Items Included in Package

Below are included in the package:

- TM Main Unit 1 unit
- Mounting Bracket 1 set (4pcs)
- Waterproof Gasket 1 pc (preinstalled to unit)
- AC adapter 1 set (w/AC cord)
- Installation Guide 2pc (1 English version and 1 Japanese version.)
- Packaging List 2pc (1 English version and 1 Japanese version.)

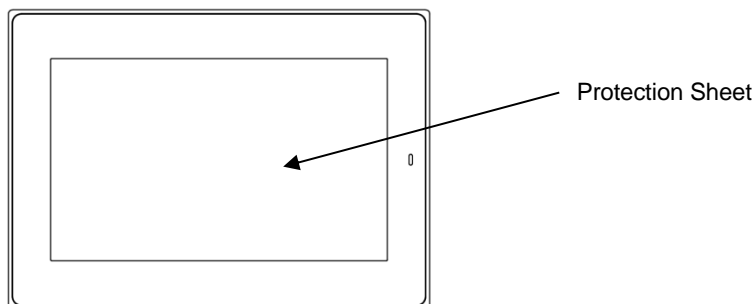
### \*Caution

The unit is shipped with the protection sheet already installed to the front side display.

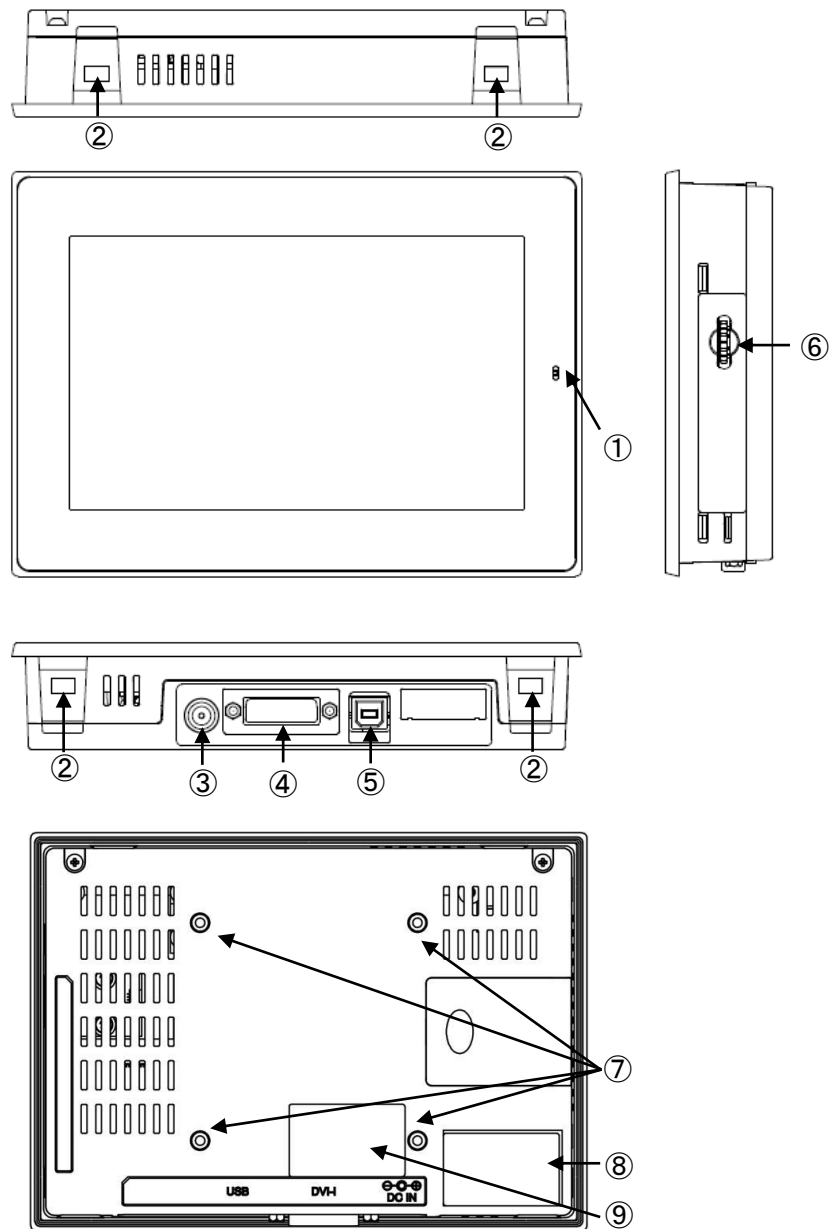
Be sure to take the sheet off before installing.

The protection sheet may cause a drop in quality of the surface of the touchscreen depending on the storing environment of the product.

Please be sure to remove the protection sheet within 6 month after shipment.



## 6. Names of Parts and Their Functions



①	Power Indicator	Indicates status of power and input signal. Green: Power ON w/ signal input Amber: Power ON w/o signal input Off: Power not applied
②	Mounting Holes	Used when installing with mounting bracket.
③	Power interface (DC Jack)	Connects to power (Input rating: DC12V)
④	DVI-I Connector	Connector for image signal input
⑤	USB-B Type Connector	Touch Screen I/F connector: Connects to USB cable.
⑥	Dial Switch	Used for turning power ON and OFF, and OSD operation.
⑦	VESA mounting holes	VESA Standard 75mm×75mm compliant installation (screw) holes
⑧	Product Labels	Product Model, S/N, ratings are noted
⑨	FCC Label	FCC statement



## 7. Installation

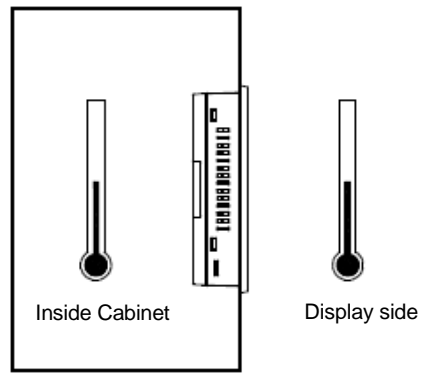
Make sure power is OFF when installing.

Make sure the unit is not deformed or contorted when installing. Effect of protection might become insufficient.

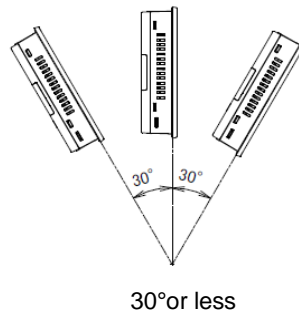
### 7-1 Installing Conditions

- When mounting the TM to panels, be sure to have enough room for inserting and removing OSD Switch, cables, and mounting brackets.
- Be sure that the ambient operation temperature (0°C to 50°C) and the ambient humidity (10%RH to 85%RH. Wet-bulb temperature is 39 °C or less) are within their designated ranges.
- "Ambient operation temperature" indicates both the display side and inside of cabinet where the TM will be installed

( Ambient temperature is for both inside the cabinet and panel face. )



- TM should be mounted perpendicular, but if it should be mounted in an angle, the angle shall not be more than 30degrees from the vertical position shown in the illustration below.



- When installing the TM in a slanted panel of angle 30 degrees or more, please use forced air cooling to ensure the temperature specification.

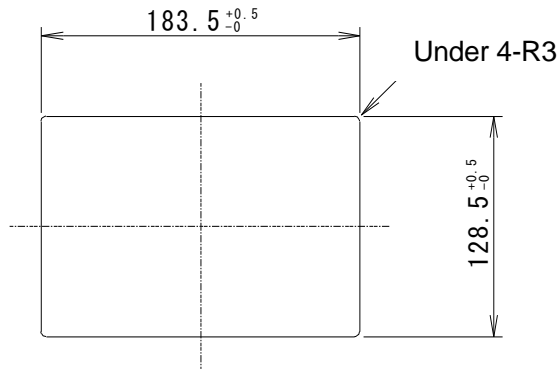
## 7-2 Panel Mounting

Please refer to the panel dimension drawing and the attached outline drawing when designing the chassis.  
Design the chassis so it will not distort or twist when installed.

### 7-2-1 Panel Opening Dimension

Panel thickness range : 1.0 mm ~ 1.6 mm\*

Panel opening dimension is as shown below:



\*Design the panel opening considering the influence with the connector to be used.

The material of the mounting panel, please use the metal.

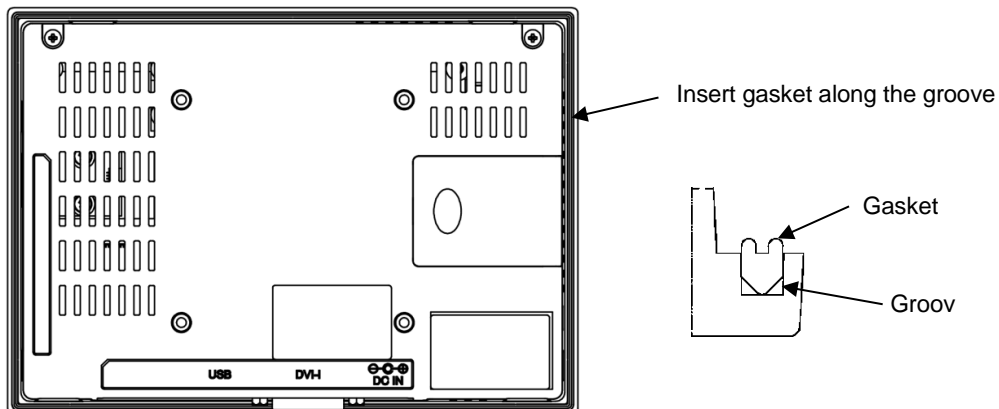
Be recommended panel thickness range, depending on material and size, may not maintain the strength when an impact is applied.

Please do take into account, such as reinforcement in the environment impact, such as join.

There is a possibility of personal injury or product damage when dropped product,  
Please be careful not to drop.

### 7-2-2 Installing the Gasket

Please install the gasket even in environments where it may not seem necessary.

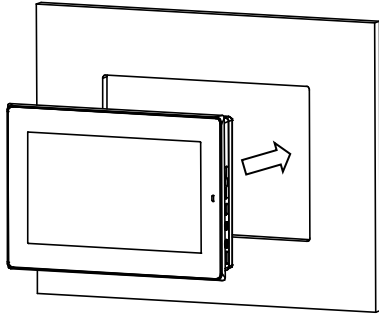


※Gasket will be installed to the unit before shipment.

Please make sure it is properly installed before use.

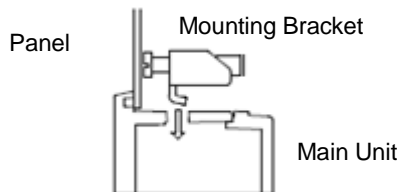
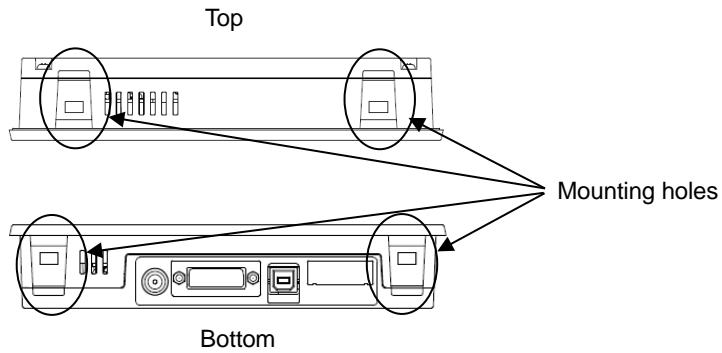
### 7-2-3 Installation Procedure

- ① Install unit (with gasket) to the panel from the front.

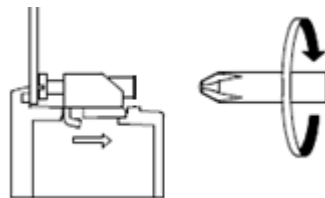


\*Make sure it is installed in the correct direction

- ② Insert mounting hooks in the mounting holes in the four locations of the unit.



- ③ Tighten screw of mounting bracket and slide the bracket.  
Tighten the screws a little at a time in all four locations working diagonally.  
Appropriate torque for tightening is 1.0~1.2N·m.



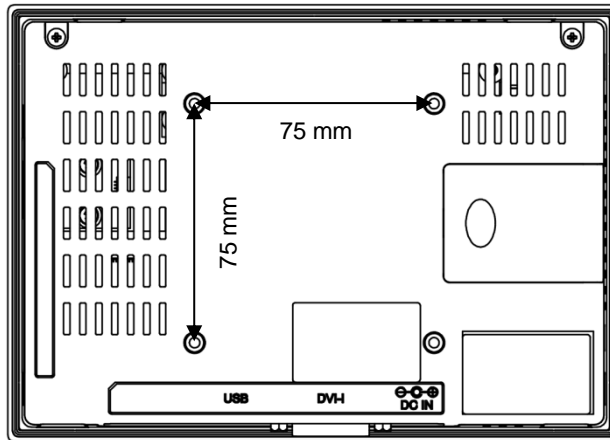
#### Note

- If the screw of the mounting bracket is not perpendicular to the panel, the unit might fall off the panel .
- If screw is too tight, the unit might deform or damage. Please tighten with appropriate torque.

### 7-3 Mounting to a “VESA” Arm

TM can be installed to a commercially available Video Electronics Standards Association (VESA) compliant arm. Please refer to the manual of arm for installation procedures.

Mounting whole dimension is as below.



Use M4 screws to mount. The tightening torque range is 0.7~0.8N · m.

Penetration depth of the M4 screw should be less than 6mm from rear side of the TM case.

#### VESA Standard Arm

VESA is an abbreviation for “Video Electronics Standards Association”, an industry group that establishes standards concerning displays for computers.

VESA establishes SVGA standards and VL Bus standards, and standardized below 2 types for the installation of LCD monitors.

- 75mm×75mm pitch
- 100mm×100mm pitch

TM complies with the VESA standard for 75mm x 75mm.

## 8. Wiring

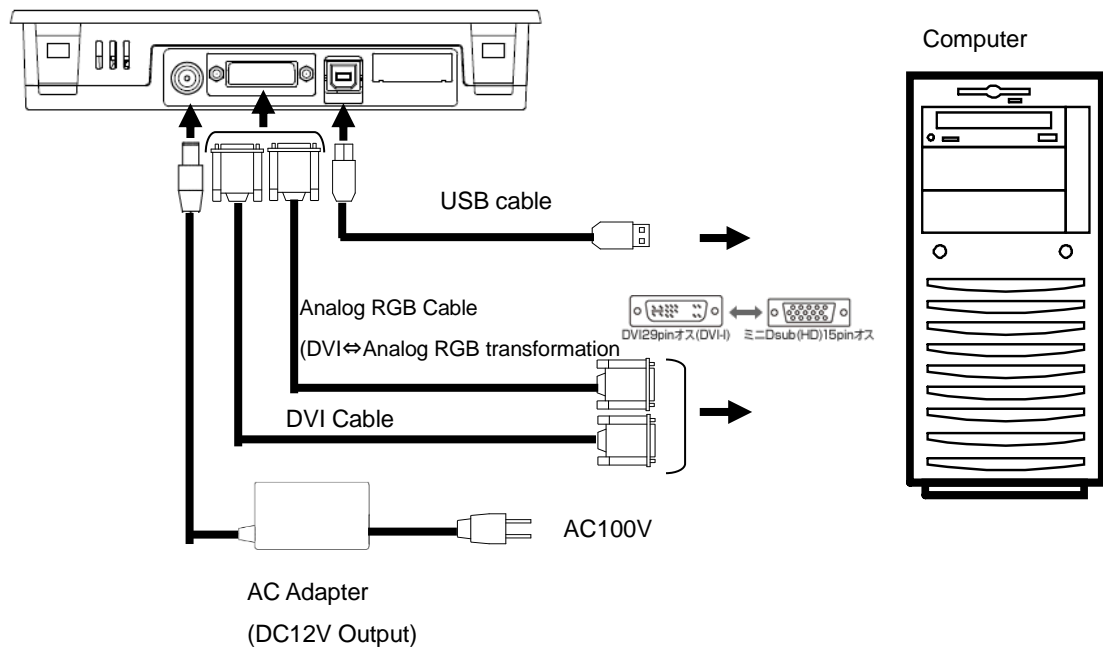
Make sure power is not supplied when connecting to avoid the risk of human injury or damage to equipment due to electrocution.

Do not turn the power on until all connections have been made.

Prepare the cables to be used according to the specifications.

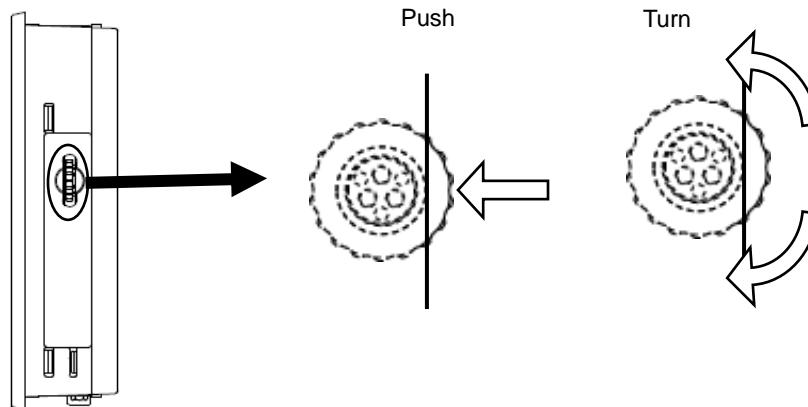
### 8-1 Wiring Procedure

- ① Make sure all powers are off and there is no electricity flow to either the TM or the computer.
- ② Please connect the TM and the computer as the following diagram.
  - ※Please connect to the power source last.
  - ※Install the Ferrite Core to the cable if noise measures are necessary.



## 9. Dial Switch Operation

Use the dial switch by pushing and turning to turn power On/Off or for OSD Operation.



### 9-1 Power On/Off

Push switch to turn on the monitor.

Push switch for more than two seconds to turn power off.

※Wait 5 seconds before turning back on the power after turning the power off.

### 9-2 OSD Operation

Push the switch when displayed on the TM to boot the OSD.

Adjust the value or the selected conditions by turning the switch clockwise or counter-clockwise.

Push switch to determine the chosen item and the value.

## 10. OSD Function

Various configurations and adjustments can be made with the OSD.

OSD can be operated with the dial switch.

The value set will be recorded and will not be erased when power is shut down and until setting is changed intentionally.

### 10-1 Adjustment Procedure

- ① Push dial switch and display the OSD menu.
- ② Turn the dial switch and adjust the item.
- ③ Push dial switch at item you want to choose.
- ④ If sub-menu is displayed, choose the item in the same procedure.
- ⑤ Change setting of item to adjust by dial switch and push dial-switch to determine.
- ⑥ After adjusting is complete, select EXIT of menu and go back to the main menu. Once back to the main menu, select EXIT and end the OSD.

\*If operation is aborted, OSD will end automatically at the time set on the OSD Timer.

### 10-2 Adjustment Item

Below items can be adjusted by OSD. \*Language is set to English at shipment.

<b>Auto Adjust</b>	<b>Optimizes screen display automatically</b>
<b>Brightness</b>	<b>Adjusts the brightness of display</b>
<b>Contrast</b>	<b>Adjusts the contrast of display</b>
<b>Screen Settings</b>	<b>VGA only</b>
H-Position	Adjust horizontal position of display
V-Position	Adjust vertical position of display
Clock	Fine adjustment of horizontal position of video input.
Phase	Adjustment of phase
Exit	Go back to main menu
<b>Color Temp</b>	
9300K	
7500K	
6500K	
User Color	User adjust intensity of colors red, green, and blue.
Auto Gain	Adjust automatically color level of input signal
sRGB	
Exit	Go back to main menu
<b>Language</b>	<b>Choose a language</b> (*Some items will appear in English)
<b>OSD Settings</b>	
OSD H-Position	Adjust horizontal position of OSD display
OSD V-Position	Adjust vertical position of OSD display
OSD Time	Setting of time to be displayed on OSD
Transparency	Adjust transparency of OSD Display
<b>VGA / DVI</b>	<b>Select image input</b>
<b>Recall</b>	<b>Go back to initial setting (at shipment).</b>
<b>Exit</b>	<b>Go back to main menu.</b>

## 11. Specification

Item		Specification
		TMG-W207-1211-01
Touch Screen	Method	Projective Capacitive
	Communication	USB 2.0
LCD	Size	7 "Wide
	Method	TFT Active Matrix Method
	Pixel	WVGA, 800x480 pixels
	Display	152.4mm(W)x91.44mm(H)
	Pixel Pitch	0.0635mm(W)x0.1905mm(H)
	Color	App. 260K colors
	View Angle(Typ.)	Vertical : 140°(60°/80°)
		Horizontal : 160°(80°/80°)
		From 12 o'clock direction (Gray Inversion)
	Brightness (Typ.)	310 cd/m <sup>2</sup>
	Backlight	LED
Backlight Life (Typ.)	70,000 hours average <sup>※1</sup>	
Input Signal Connector	Analog	DVI-I Connector
	Digital	
Input Signal	Analog	Sync signal: Separate, TTL,+/- polarity
		RGB signal : 0-0.7Vp-p 75Ω
	Digital	DVI1.0 Compliant
Power Voltage		DC12V
Power Consumption		MAX 7W
External Dimension		192(W) x 137(H) x 36(D) mm
Weight		App 700g
Panel Cut-out Dimension		183.5 <sub>+0.5/-0</sub> (W) x 128.5 <sub>+0.5/-0</sub> (H) mm
Environment	Temperature (Inside cabinet and display surface)	Operating : 0~50°C
		Storing : -10~60°C
	Humidity	Operating : 10~85%RH (Non-condensing, Wet bulb temperature is 39°C or less)
		Storing : 10~85%RH (Non-condensing, Wet bulb temperature is 39°C or less)
Pressure resistance (altitude)		800~1114hPa (Altitude of 2000m and under)
Protective Structure		IP65 (Front panel embedded state)

※1 Time until brightness declines by 50% from the initial value at maximum brightness at ambient temperature of 25°C.




**Support Signal Timing**

Item	Description	H-Freq. (KHz)	V-Freq.(Hz)
1	800x480	31.47	60.24
2	VGA 640x480	31.47	59.94
3	VESA 640x480	37.86	72.81
4	VESA 640x480	37.50	75.00
5	VGA TEXT 720x400	31.47	70.09

## 12. Maintenance

### 12-1 Display

When surface of display or frame gets dirty, wipe with a soft cloth damped in diluted neutral detergent and wrung dry.

 Do not use thinners, organic solvents, or strong acidic solvents.

### 12-2 Regular Maintenance

To keep the TM in best shape, please conduct maintenance on a regular basis.

#### Surrounding Environment Check

- (1) Ambient temperature is within specification range (0~50°C)
- (2) Ambient humidity is within specification range (10~85%RH)
- (3) Ambient pressure is within specification range (800~1114hpa)

#### Electronic Specification Check

- (1) Voltage is within permissible range (DC12V±10%)

#### Installation Check

- (1) Make sure the connection cables are inserted firmly and completely.
- (2) Mounting brackets are installed firmly without any looseness.

## 13. Warranty and Repair

### 13-1 Inquires

In case of defects or when repair is needed for Seedsware products, feel free to contact us.

In case of making inquiries, please confirm the issue or the symptom beforehand. Also, when sending the product, please include a fully filled "Repair Request" form with the issue or the symptom noted.

Please make sure the product is packaged so it will not get damaged during shipment.

□Where to Contact:

USCO America Inc.

+1-630-832-0438 (Business Hours: 9:00a.m. ~5:45p.m. CT)

### 13-2 Warranty

The warranty period is limited to one year from the date of shipment. Any defects that occurred under proper use and environment noted in the specification will be repaired without charge (On-site repair). (The warranty for defects of the same area is three months.)

You will be liable for all repair fees even within the warranty period for any conditions listed below.

- (1) Any malfunctions and damages during transportation and transfer of mishandling by user after delivery.
- (2) Any malfunctions and damages caused by natural or man-made disaster
- (3) If the product is used under any condition, in any environment, or by any method other than those described in the product specification, catalogs, manuals or others.
- (4) Replacement of consumables
- (5) Any malfunctions and damages caused by failure of associated equipment, inappropriate consumables, and media.
- (6) Any malfunctions caused by science or technology that could not be predicted at time of sales.
- (7) Other malfunctions, damages, and/or defects that is considered to be caused by the user

The warranty only covers the product itself. Repair and replacement of damages caused by the failure of the product and/or repair and replacement will be charged.

### 13-3 Repair Condition

- (1) Only Seedsware products can be repaired. Options are exempt.
- (2) Programs and data might be lost during repair. Please be sure to take back-up. Seedsware will not be held liable for any programs or data lost during repair.
- (3) All user information recorded in our product will be handled with much care. However, we ask that any important security information be deleted before repair.
- (4) Repairs will be done in our workshop after it is sent back. All shipping fee will be charged.
- (5) Seedsware will have all ownership for parts exchanged at repair.

## 14. Production Discontinuance

In the event of product discontinuance, an announcement will be made on our website at least six months prior to the discontinuance.

## 15. Others

For comments or inquiries, contact us via e-mail or phone.

\*Product, specification and/or anything noted are subject to change for improvement without prior notice.

### By Phone



**+1-630-832-0438 (Business Hours: 9:00a.m. ~5:45p.m. CT)**

### By E-mail



**sales@uscoamerica.com**

### FAQ



**[www.seedsware.co.jp/global/support/faq/](http://www.seedsware.co.jp/global/support/faq/)**

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3<sup>rd</sup> Edition February 2017

USCO America Inc.

136 W. Valletts Street, Elmhurst, IL 60126 USA

Phone: 630-832-0438/510-931-9046

E-mail: sales@uscoamerica.com

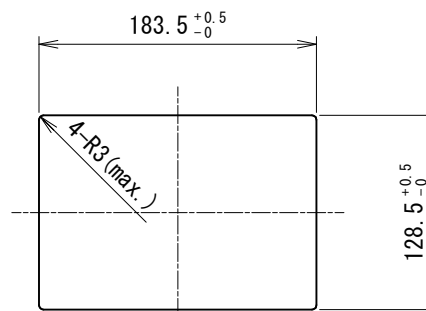
Business hours: 9:00a.m. ~5:45p.m. (Central Time)

<http://uscoamerica.com/>

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寸法許容差 TOLERANCE	
呼び寸法 Nominal Dimensions	
L ≤ 3	±0.4
3 < L ≤ 6	±0.48
6 < L ≤ 10	±0.58
10 < L ≤ 18	±0.7
18 < L ≤ 30	±0.84
30 < L ≤ 50	±1.0
50 < L ≤ 80	±1.2
80 < L ≤ 120	±1.4
120 < L ≤ 180	±1.6
180 < L ≤ 250	±1.85
250 < L ≤ 315	±2.1
315 < L ≤ 400	±2.3
400 < L ≤ 500	±2.5

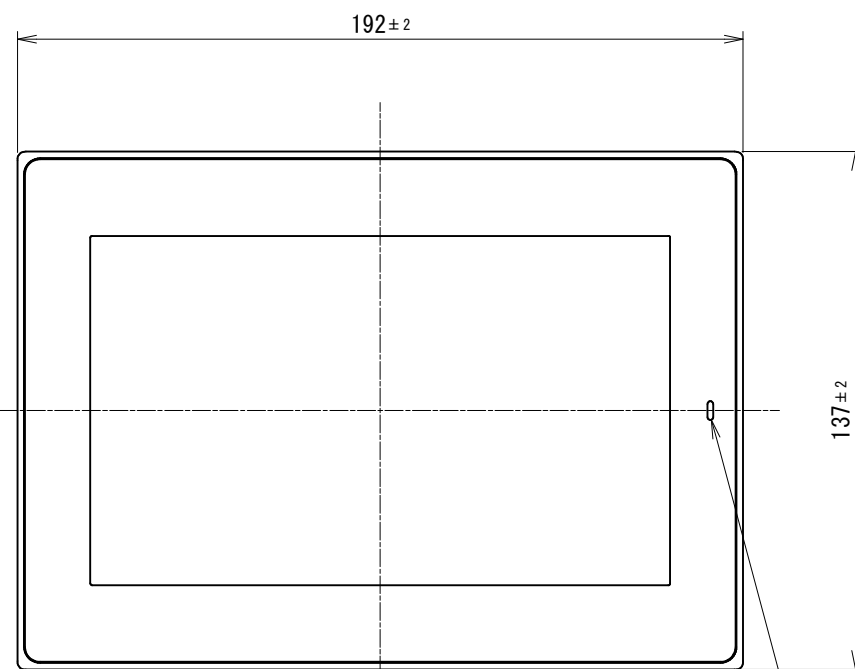
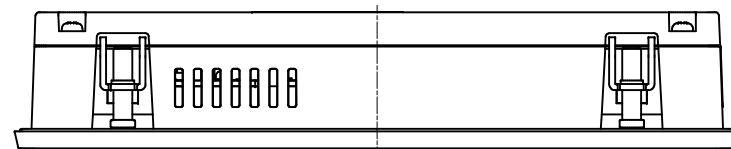
SYM	改訂日 DATE	改訂内容 DESCRIPTION	ページ PAGE	担当 DESIGNED
	2016.10.03	新規図面登録 New Diagram Registration	-	S. Yoshimoto



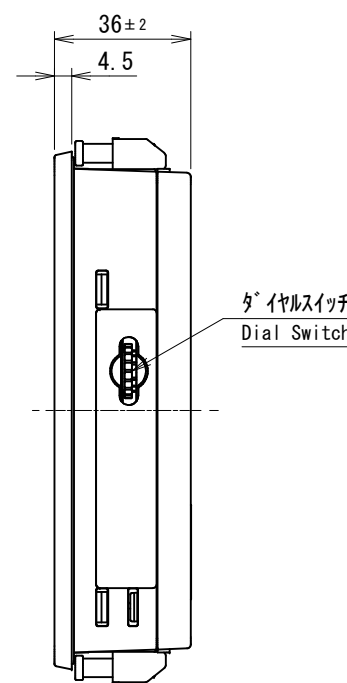
ハ 枠開口寸法 (S=1:5)  
Panel Cutout Dimensions (S=1:5)

NOTES

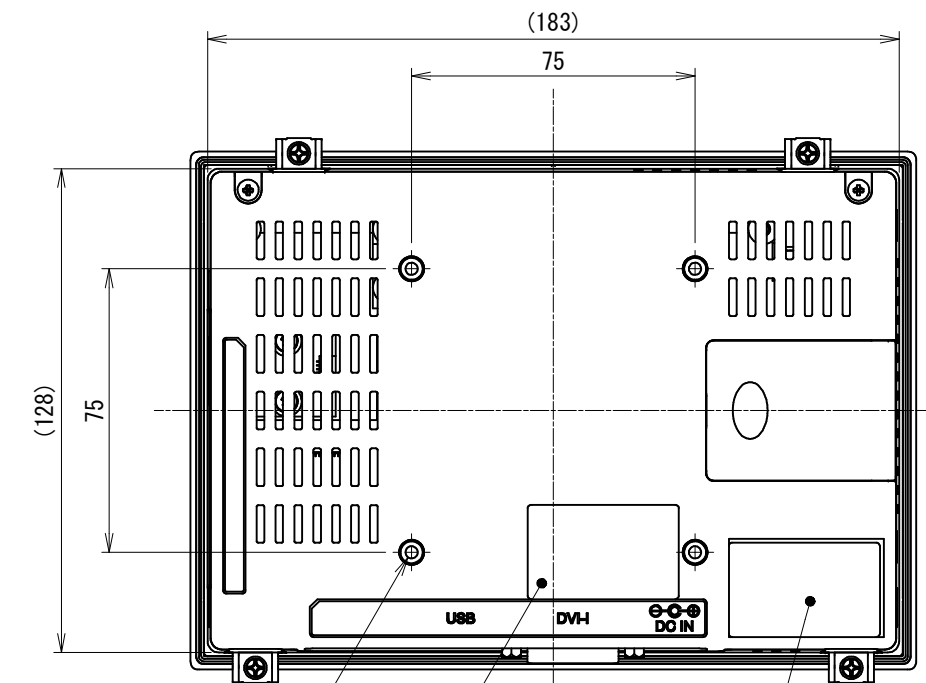
- 誤動作の恐れがある為、ハ 枠開口寸法をお守り下さい。  
又、取付けハ 枠には、反り、傷、凹凸のないものを使用して下さい。  
To prevent malfunctions, panel opening dimension shall strictly be as specified.  
Be sure to use installation panels without warpage, scratches, and dents.



状態表示LED  
Status Display LED



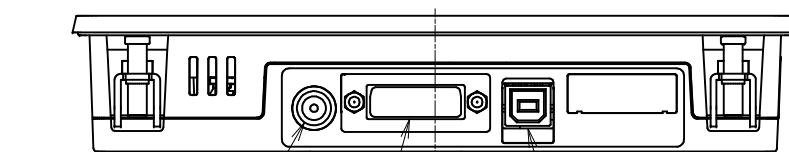
ダイヤルスイッチ  
Dial Switch



4-M4  
枠 侵入深さ6mm以下  
Effective Screw Depth 6mm

製品銘板シール  
Product Label

FCCラベル  
FCC Label



電源入力 (DCジャック)  
Power Input (DC Jack)

タッチパネルインタフェース  
Touchscreen Interface

映像入力 (デジタル)  
Video Input (Digital)

NOTES

- 指示なき寸法公差は一般寸法公差とする。  
Tolerance shall be of general dimensional tolerance unless specified otherwise.

製図日 ISSUED	2016.10.03	部署 SECTION	Technical Dept.	尺度 SCALE	CAD登録名 CAD FILE NAME	13K0032-2_TM-7_OUTLINE	RoHS対応品 RoHS compliant
承認 APPROVED		検図 CHECKED		1:2	製品名 MODEL	TMG-W207-1211-01	
		製図 DRAWN	S. Yoshimoto	単位 UNIT	図名 TITLE	OUTLINE	ページ PAGE
		設計 DESIGNED	S. Yoshimoto	mm			1 / 1
H. Tsuji			T. Okada	Seedsware		図番 DWG No.	SM3-001917-10
				A3			