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1. Precautions

- Read all of these instructions and save them for later use.
- Follow all warnings and instructions on the product.
- Product
 - Do not cover or block the vent holes in the case.
 - Do not insert sharp objects or spill liquid into the LCD monitor through cabinet slots. They may cause accident fire, electric shock or failure.
 - Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.
 - Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks.
 - Do not apply pressure to the screen. The LCD is very delicate.
 - Do not touch the LCD panel or Touch Screen surface with sharp or hard objects.
- Power Adapter
 - Use the type of power indicated on the marking label. Marked with "LPS (Limited Power Source)" Power Adapter.
- Plugs
 - Do not remove any of the prongs of the monitor's three-pronged power plug.
 - Disconnect the power plug from the AC outlet under following conditions:
 - ◆ If you will not use it for an indefinite period time.
 - ◆ When the power cord or plug is damaged or frayed.
 - ◆ If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - ◆ If the product has been dropped or the cabinet has been damaged.
 - ◆ If the product exhibits a distinct change in performance, indicating a need for service.
- Power and extension cords
 - Do not allow anything to rest on the power cord.
 - Do not locate this product where persons will walk on the cord.
 - Use the proper power cord with correct attachment plug type. If the power source is 120 V AC, use a power cord that has UL and C-UL approvals. If the power source is a 240 V AC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations, such as VDE for Germany.
 - Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 10 amperes.
 - Ensure that the total ampere ratings on all units plugged into the extension cord is not above the cord's rating.
 - If the power supply cord, which came with your monitor, is to be connected to the PC instead of the wall outlet, this equipment is to be used with UL/TÜV approved computers with receptacle rated 240V AC, and 2.0A (minimum).
- Environment
 - Place the monitor on a flat and leveled surface.
 - Place the monitor in a well-ventilated place.
 - Keep the monitor away from: overly hot, cold or humid places, places directly under sunlight, dusty surroundings, equipment that generate strong magnetic fields.
 - Not suitable for use in the presence of a flammable substance.
 - To prevent fire or shock hazard, never expose the monitor to rain or moisture.

2. VESA mounting installation

2-1. 6.4" ~ 15" LCD Monitor VESA Mounting

Fix UL listed wall mount bracket on the back of the monitor with screws, the specification of screw (ref. image 1) , to prevent electric damage to ensure user's safety. The dimension of interface pad of wall mount bracket has to follow VESA standard (ref. Image 2)

Installation: Please aim UL listed wall mount bracket at the 4 screw holes on the back of monitor and screw tightly (ref. Image 3) .

Please refer to user's manual of UL listed wall mount bracket for wall mount installation.

SCREW M4L8 ,EGW,PAN(+),NI

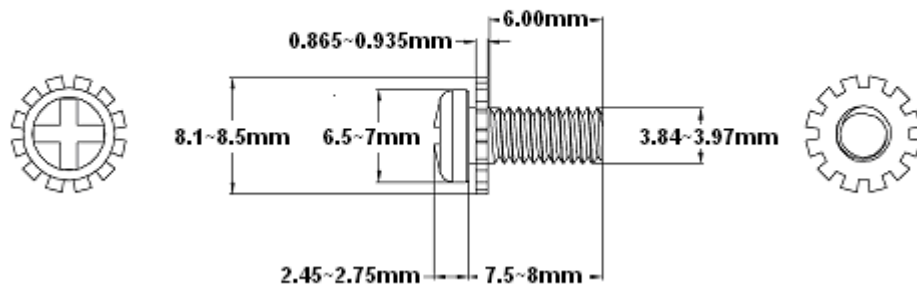


Image 1

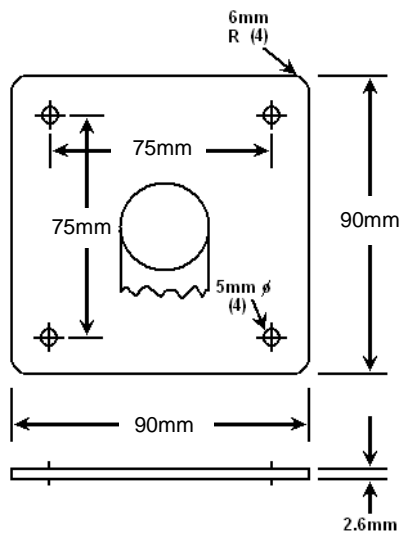


Image 2

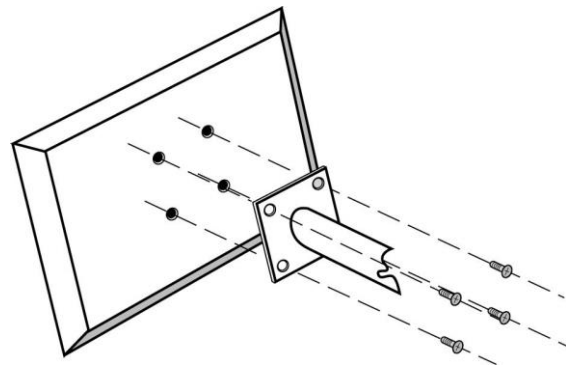


Image 3

2-2. 17" / 19" LCD Monitor VESA Mounting

Fix UL listed wall mount bracket on the back of the monitor with screws, the specification of screw (ref. image 1) , to prevent electric damage to ensure user's safety. The dimension of interface pad of wall mount bracket has to follow VESA standard (ref. Image 2)

Installation: Please aim UL listed wall mount bracket at the 4 screw holes on the back of monitor and screw tightly (ref. Image 3) .

Please refer to user's manual of UL listed wall mount bracket for wall mount installation.

SCREW M4L10,EGW,PAN(+),NI

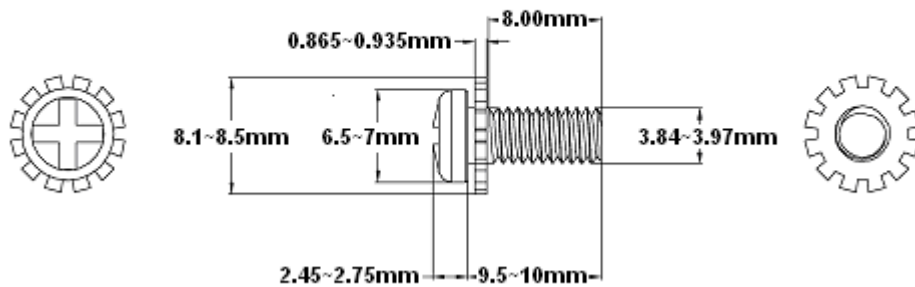
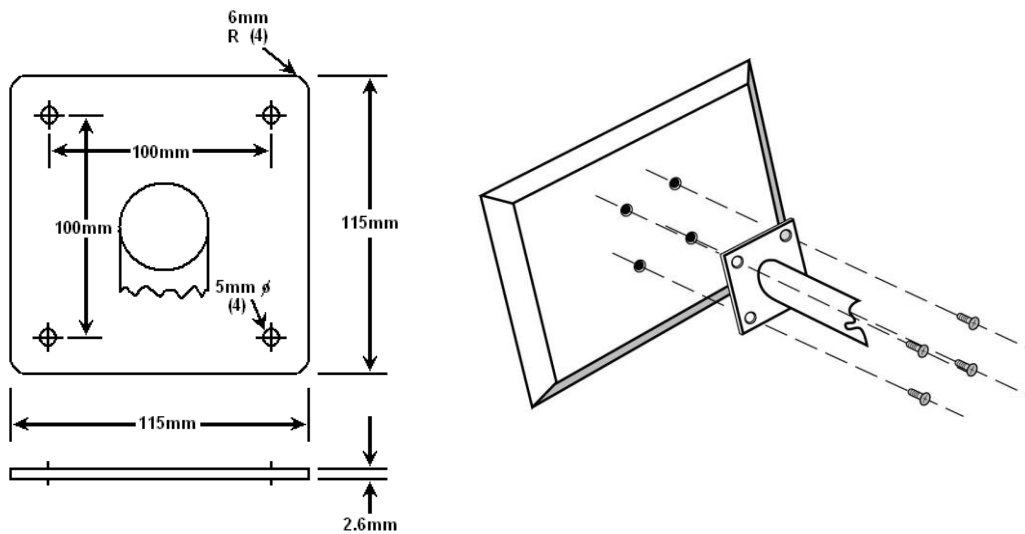


Image 1



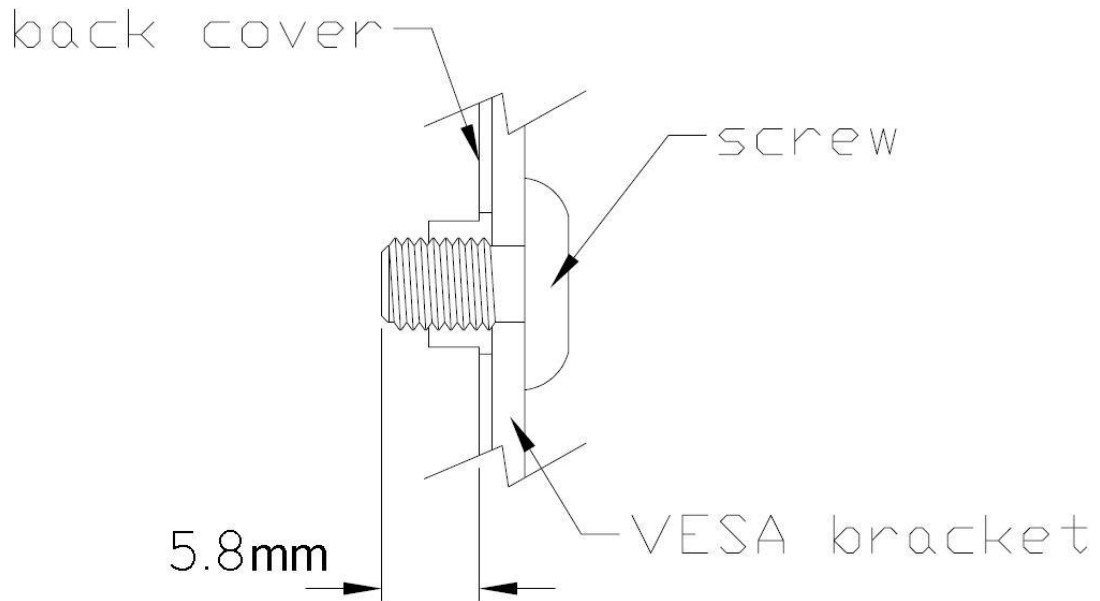
VESA® Standard Interface Pad Configurations

Image 2

Image 3

2-3. Screw length Limitation

Please refer to the following instruction when the specification of screw or wall mount bracket is different with the chapter 2-1 or 2-2 list.



3. Federal Communication Commission Radio Frequency International Statement

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

4. WEEE Statement

Important Information for Recycling

This warning sign of trash bin indicates that the objects are not allowed to be disposed as general refuse. Please follow the local Act and carry out further disposal with refuse recycling and collecting system in your Country or District. For more information on recycling, please contact locally authorized recycling centre or place of purchase.

Your recycling behaviour will bring better future for the Earth and create living environment with excellent quality for the descendant.



Informations importantes relatives au recyclage

Cet avertissement sur un récipient à ordures indique qu'il est interdit d'y déverser des ordures ménagères. Veuillez à l'avenir respecter les réglementations locales et rester en conformité avec le système de collecte et de recyclage des ordures de votre circonscription ou district. Pour plus d'informations sur le recyclage, veuillez contacter votre centre de recyclage agréé local ou le lieu d'achat.

Votre attitude quant au recyclage améliorera l'avenir de la planète et créera un environnement de vie de qualité pour les générations futures.

Wichtige Hinweise zum Recycling

Dieses Mülleimer-Warnsymbol gibt an, dass die Objekte nicht mit dem regulären Hausmüll entsorgt werden dürfen. Bitte halten Sie sich an die örtlichen Bestimmungen und entsorgen Sie die Objekte über Recycling- und Sammelstellen in Ihrer Nähe. Detaillierte Informationen zum Recycling erhalten Sie von Ihrer örtlichen, offiziellen Recycling-Sammelstelle oder beim Händler, bei dem Sie die Objekte erworben haben.

Ihre Mitarbeit trägt dazu bei, unsere Umwelt zu schützen und sorgt dafür, dass unsere Erde auch für nachfolgende Generationen ein Ort bleibt, an dem es sich zu leben lohnt.

Información importante de reciclado

Este letrero de aviso de cubo de basura indica que los objetos no pueden desecharse como residuos generales. Cumpla la normativa local y realice la eliminación según el sistema de reciclado y recogida de su país o región. Para obtener más información sobre el reciclado, póngase en contacto con su centro de reciclado autorizado local o su lugar de compra.

Su conducta de reciclado supondrá un mejor futuro para la Tierra y crea un entorno de vida de calidad para las futuras generaciones.

Informazioni importanti sul riciclaggio

Questo simbolo del bidone dell'immondizia sta ad indicare che è vietato smaltire il prodotto insieme ai rifiuti domestici generici. Attenersi alle normative ed alle procedure di raccolta e riciclaggio dei rifiuti speciali in vigore nella propria città o regione. Per altre informazioni sul riciclaggio, mettersi in contatto con i centri autorizzati di raccolta e riciclaggio, oppure con negozio dove è stato fatto l'acquisto.

Le vostre azioni garantiranno il miglioramento futuro della Terra e creeranno un ambiente ed una qualità di vita che tutti preferiscono sia per sé sia per le generazioni future.

Důležité informace pro recyklaci

Tato značka na kontejneru znamená, že do něj není dovoleno vhadzovat určité předměty. Dodržujte prosím místní předpisy a likvidujte odpad podle systému recyklace a sběru odpadu ve vaší zemi nebo okresu. Pro další informace o recyklaci kontaktujte místní recyklační středisko nebo místo nákupu výrobku.

Svým postojem k recyklaci přispějete k lepší budoucnosti na Zemi a ke kvalitnějším životním podmínkám pro budoucí generace.

Ważna informacja dotycząca recyklingu

Symbol przedstawiający pojemnik na odpadki informuje, że oznaczone nim obiekty nie mogą być usuwane razem z ogólnymi odpadami. Należy stosować się do lokalnego prawa i wykonywać zalecenia dotyczące dalszego przetwarzania takich odpadów poprzez umieszczenie ich punktach gromadzenia odpadów w danym kraju lub okręgu. Dalsze informacje dotyczące recyklingu można uzyskać, po skontaktowaniu się z punktem przetwarzania odpadów autoryzowanym przez władze lokalne lub w miejscu zakupu.

Stosowanie się do zaleceń w sprawie przetwarzania odpadów, przyczyni się do zmniejszenia zanieczyszczenia Ziemi i zachowania czystości środowiska dla przyszłych pokoleń.

Важная информация о переработке отходов

Такое изображение мусорного ящика обозначает, что данный предмет не разрешается выбрасывать вместе с общими отходами. Пожалуйста, придерживайтесь местных законов и выбрасывайте данный предмет в соответствии с системой переработки отходов вашей страны или области. Для более детальной информацией о переработке отходов обращайтесь к местным авторизованным центрам переработки отходов или к продавцу данного изделия.

Ваши действия по утилизации мусора повлияют на лучшее будущее Земли и повысят чистоту окружающей среды для будущих поколений.

回收重要資訊

這個垃圾桶警告標識，表示不能依一般廢棄物處理，請依照當地法律，利用貴國或貴地區的廢品回收及收集系統加以處理，欲取得更多的回收資訊，請聯絡當地授權的回收中心或產品購買地點。

你的回收行為，將為地球帶來更美好的將來，為後代子孫創造更優質的生活環境。

回收重要信息

这个垃圾桶警告标识，表示不能依一般废弃物处理，请依照当地法律，利用贵国或贵地区的废品回收及收集系统加以处理，欲取得更多的回收信息，请联络当地授权的回收中心或产品购买地点。

你的回收行为，将为地球带来更美好的将来，为后代子孙创造更优质的生活环境。

リサイクルに関する重要な情報

このごみ入れの警告標示は、物体を一般廃棄物として廃棄できないことを示しています。地方自治体の規制に従い、居住する国または地域の廃棄物リサイクルおよび収集システムに従って廃棄を実行してください。リサイクルの詳細については、地域の認可されたリサイクルセンターまたは購入店にお問い合わせください。

お客様のリサイクルに対する態度は地球の未来、また後の世代の生活環境の向上をもたらすものとなるはずです。



Green MarkはJ-Mossに合致したと表す(JIS C 0950電気、電子の機械の特定の化学の物質は含有して方法を表す)。

J-Mossの特定の化学の物質の(鉛、水銀、カドミウム、六つの値段クロム PBB、PBDE)、その含有量きわめてになる低い

5. Japan RoHS Declaration

JIS C 0950: 2021 in Japan:



Green MarkはJ-Mossに合致したと表す(JIS C 0950電気、電子の機械の特定の化学物質は含有して方法を表す)。

J-Mossの特定の化学物質(鉛、水銀、カドミウム、六つの値段クロム PBB, PBDE), その含有量きわめてになる低い

設備名前 : LCDウォッチドッグ 類型は指定しました : 全部の模型

部品名称	毒がある有害物質あるいは要素でした					
	鉛 (Pb)	水銀 (Hg)	カドミウム (Cd)	六値段 クロム (Cr6 ⁺)	たくさんの臭素のジフェニ ルでした (PBB)	たくさんの臭素のジフェニ ルオキサイド (PBDE)
電線のケーブルのモジュール	0	0	0	0	0	0
プラスチックの部品	0	0	0	0	0	0
メタルの部品	0	0	0	0	0	0
電気回路のモジュール	X	0	0	0	0	0
液状結晶のデスク	X	X	0	0	0	0
ぶつかってモジュールを訴えた	X	0	0	0	0	0
X : 免除した						
1. 「0」は計算されたこういう物質のパーセントの内容が参考のパーセントの内容を越え たなかったと表明したと気を配りました。 2. が「免除し」たことを注意して計算されたことを表すこういう物質のパーセントは合 致して項目を免除します。						
JIS C 0950						

6. Introduction

◆ Product Features


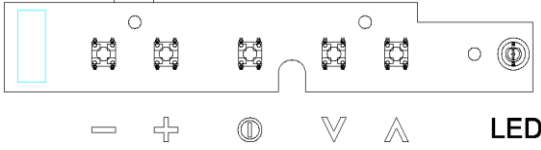

- High contrast color TFT LCD display support resolution up to VGA 640x480 with 6.4", SVGA 800x600 with 8.4"/10.4"/12.1", XGA 1024x768 with 12.1"/15" and SXGA 1280x1024 with 17"/19".
- Compatible with IBM VGA,DVI, VESA standards.
- Flexible mechanical designs for industrial application
- Power management system conforms to VESA DPMS standard.
- Universal power adapter.
- Support DDC1/2B for Plug & Play compatibility.
- Advanced OSD control for picture quality adjustment.
- Support VESA standard mounting holes for wall mount or ARM mounting application.
- Touch screen system (Optional)
- Digital interface (Optional)
- IP54 water resistant compliant (Optional)

◆ Package Contents

- 6.4" / 8.4" / 10.4" / 12.1" / 15" / 17" / 19" TFT liquid crystal monitor
- D-sub 15 pin signal cable for analog input
- DVI 24 pin signal cable for digital input (Optional)
- RS232 / USB cable for touch screen function (optional).
- RCA / S-Video signal cable for video-in function (optional).
- Power adapter / AC power cord (Optional)
- Touch screen CD driver (Optional)
- 4 pieces M4x8mm or M4x10mm washer screws (Optional)
- User's manual

7. Monitor Controls

7-1. Key Function

<p>1 2 3 5 4</p> 	<p>Model : -K06AV.K08AS.K10AS</p>
<p>5 4 1 3 2</p> 	<p>Model : -K12DS / K12DX -K12EX</p>
<p>1 2 3 4 5</p> 	<p>Model : -K17BH,K19BH -K15CX -K15GH.K17GH.K19GH -K12TS.K12TX.K15TX.K17TH.K19TH</p>

1. Power Switch	Pressing this button turns the display system power on or off .
2. Menu/Select “▲”	Pressing this button opens the OSD menu on the screen, and is used to select (“Up” direction) the OSD control options on the screen.
3. Select “▼”	This button is used to select (“Down” direction) the OSD control options on the screen.
4. “+”	This button is used to increase the value of the selected OSD control option.
5. “-”	This button is used to decrease the value of the selected OSD control option.

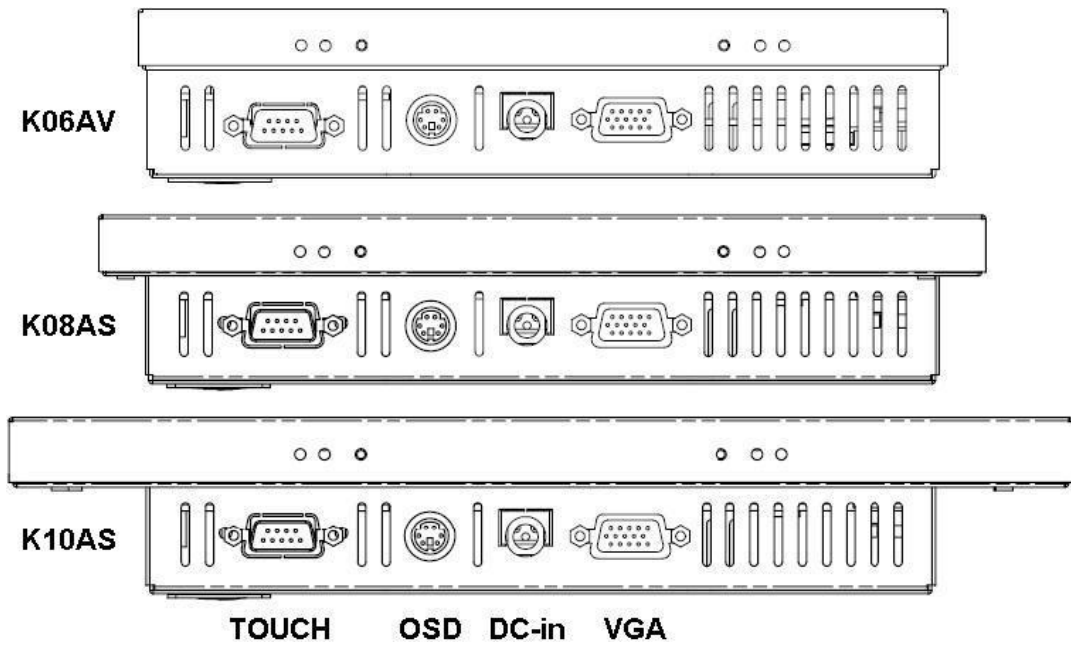
7-2. OSD Control options

Pressing “-” button once opens the small **Input Select icon**.

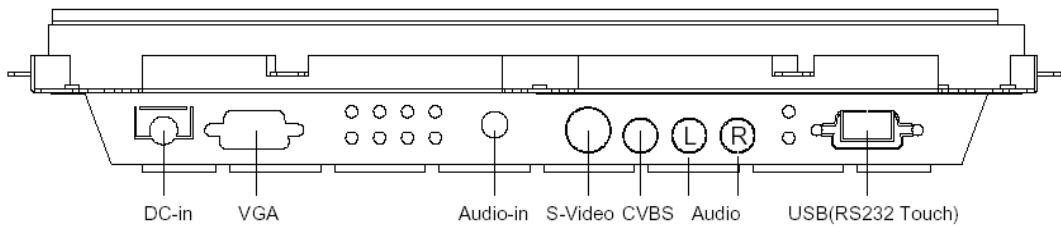
PC ANALOG
PC DIGITAL (Optional)
VIDEO (Optional)
S-VIDEO (Optional)
EXIT

7-3 I/O Port

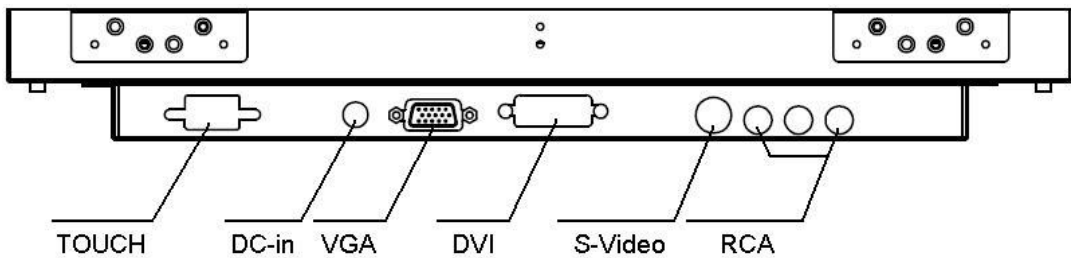
◆ K06AV / K08AS / K10AS



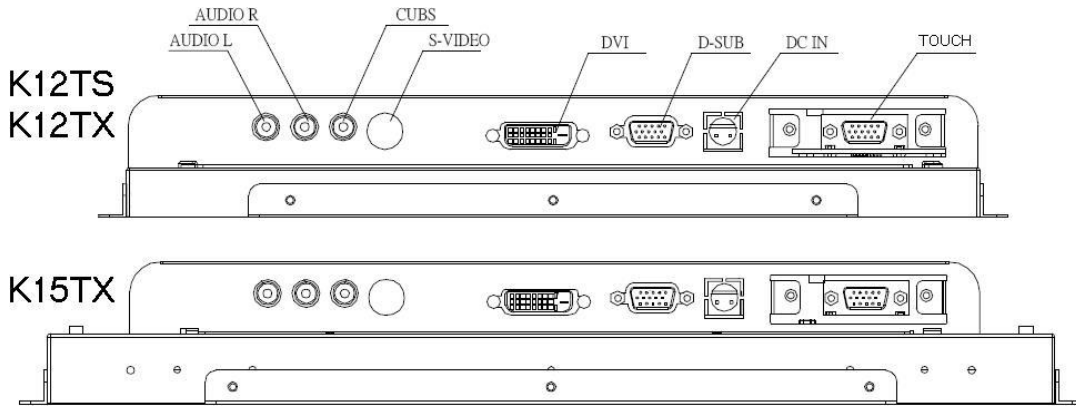
◆ K12DS / K12DX / K12EX



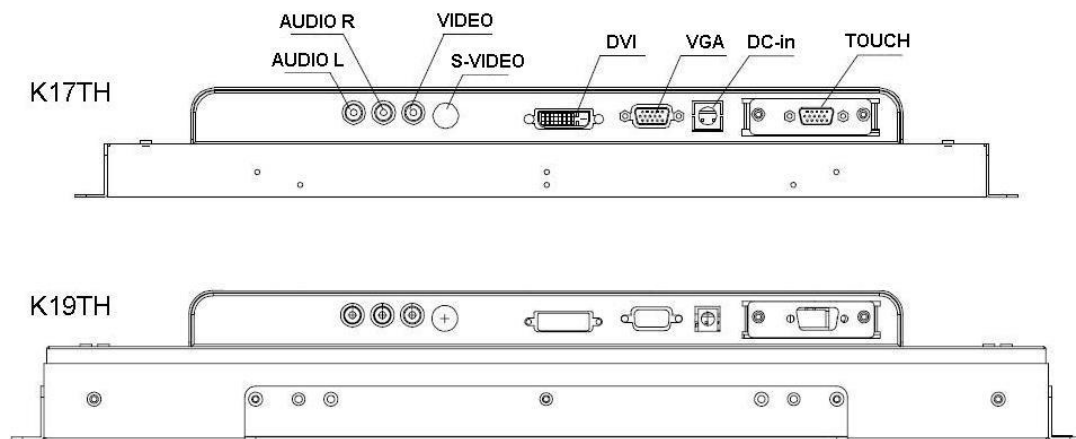
◆ K15CX



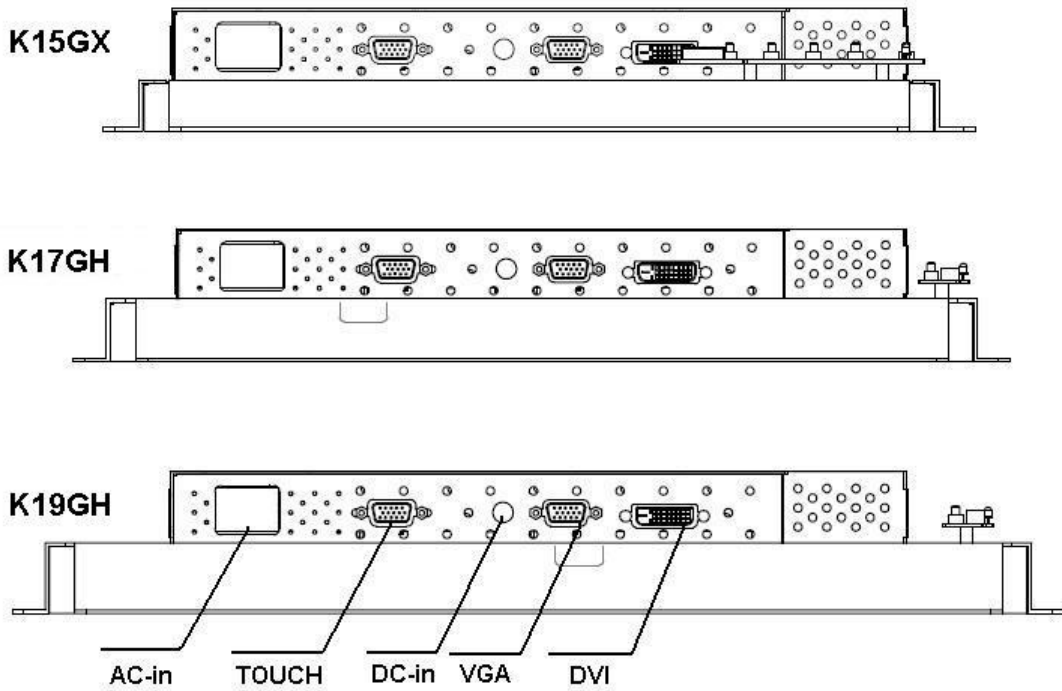
◆ K12TS / K12TX / K15TX



◆ K17TH / K19TH

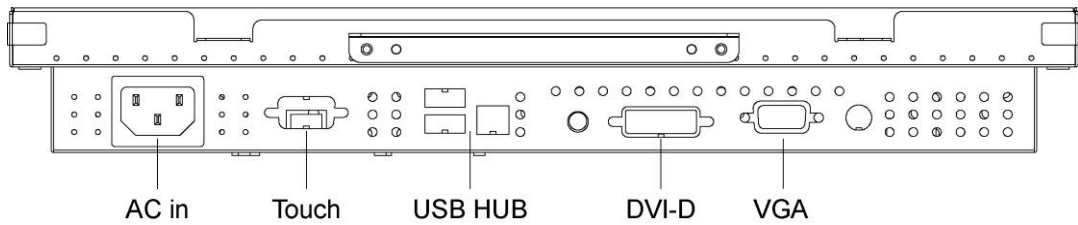


◆ K15GX / K17GH / K19GH

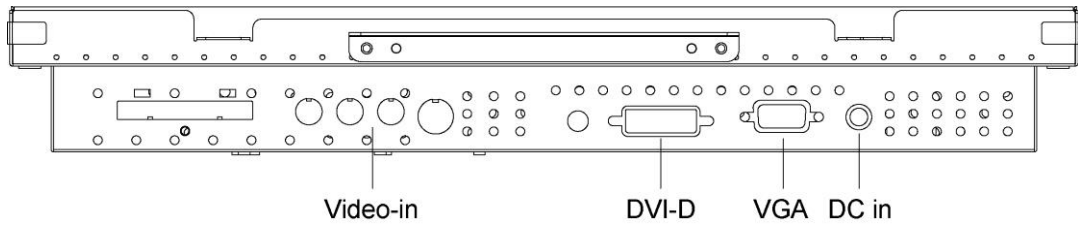


◆ K17BH / K19BH

Standard Model (DVI or USB hub or Touch option):



Standard Model for Video-in function:



WARNING Be sure to hold the connector instead of the wire when you disconnect the cord/cable.

8. Screen Adjustment



- **CONTRAST**
Adjust the contrast using “+” and “-” buttons.
- **BRIGHTNESS**
Adjust the brightness using “+” and “-” buttons.
- **VOLUME**
Adjust the speaker volume using “+” and “-” buttons.
- **AUTO TUNE**
Press “+” or “-” buttons to make LCD monitor adjust the related parameters automatically for optimal display status.
- **H - POSITION**
Pressing “+” moves the display image to the right; Pressing “-” moves the display image to the left.
- **V - POSITION**
Pressing “+” moves the display image upward; Pressing “-” moves the display image downward.
- **LANGUAGE**
This item is used to select OSD languages.
- **FREQUENCY**
This item is used to decrease the vertical interference.
 1. Select one display pattern from your computer.
 2. Use “+” and “-” buttons on the LCD monitor to decrease the vertical interference to get the optimal display.
- **PHASE**
This item is used to decrease the horizontal interference.
 1. Select one display pattern from your computer.
 2. Use “+” and “-” buttons on the LCD monitor to decrease the horizontal interference to get the optimal display.

- **RED / GREEN / BLUE**
Adjust the value of color gain (Red, Green, Blue) using “+” and “-” buttons.
- **COLOR TEMP.**
This section is for “Color Temperature” adjustment. You can select the Warm, Cool, or Normal in this section, and then press “+” and “-” buttons to set up. The color temperature will be recalled as factory preset value.
- **RECALL**
Press “+” or “-” buttons to recall factory preset values.
- **HUE (For the model with Video input only)**
Adjust the video image hue using + or - buttons to set up.
- **SHARPNESS (For the model with Video input only)**
Adjust the sharpness using + or - buttons to set up.
- **SATURATION (For the model with Video input only)**
Adjust the video image color saturation using + or - buttons to set up.

9. Touch installation

◆ Installing Touch Screen Controller Driver

To install the driver of the touch screen controller to your computer, please follow the steps below:

1. Insert the CD-ROM in your computer's CD-ROM drive.
2. If autorun is enabled, the setup program appears automatically. If autorun is disabled, run setup.exe from the root directory of CD.
3. Follow the directions on the screen to complete the installation.
4. After finishing the installing, restart the computer as instructed.

◆ Uninstalling Touch Screen Controller Driver

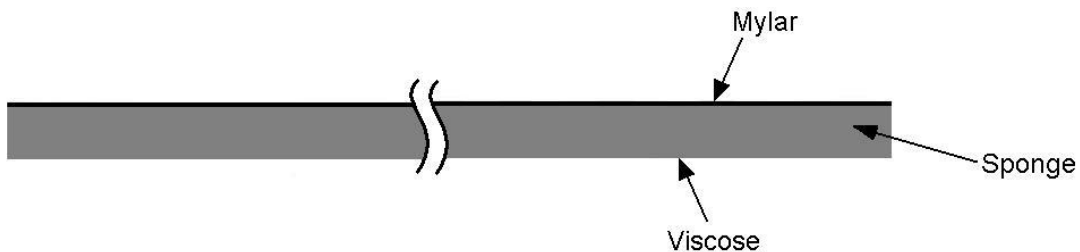
To uninstall the driver of the touch screen controller from your computer, please follow the steps below:

1. Click the Start button, click Control Panel, and then click Add/Remove Programs.
2. Select Touch Screen Controller Driver from the list of uninstallable programs on the Install/Uninstall tab.
3. Click the Add/Remove button then follow the directions on your screen.
4. After finishing the uninstalling, restart the computer as instructed.

◆ SAW Touch Screen Installation Notice

Please use the attached special sponge to isolate the touch screen and front housing, please follow the steps below:

1. Pasting the viscose side of the sponge on the front housing.
2. Let the mylar side of the sponge to contact touch screen .



10. Trouble shooting

The monitor does not respond after you turn on the system.

- Check if the **Power Switch** of monitor is turned **on** .
- Turn off the power and check the monitor's power cord and signal cable for proper connection.

The characters on the screen are dim.

- Refer to the Controls and Adjustments section to adjust the brightness.

The screen is blank.

- During operation, the monitor screen may automatically turn off as a result of Power Saving feature. Press any key to see if the screen comes back.
- Refer to the Controls and Adjustments section to adjust the brightness.

The screen flashes when it's initialized.

- Turn off the monitor and turn it on again.

◆ **Cleaning**

- Gently wipe the screen with a clean camel hair lens brush, or a soft, clean, lint-free cloth. This removes dust and other particles that can scratch the screen.
- Do not apply pressure to the screen surface when wiping it clean.
- Do not pour or spray any liquid directly onto the screen or case of the LCD monitor. Chemical cleaners have been reported to damage the screen or case of the LCD monitor.

WARNING : Do not disassemble the monitor. Contact your dealer if needed.

11. Display Modes

11-1. K06AV / K08AS / K10AS

Display Size	Resolution	Type	H. Scan(KHz)	V. Scan(Hz)	Pixel(MHz)
K06AV K08AS K10AS	640 X 350	VGA	31.469	70.087	25.175
	720 X 400	VGA	31.469	70.087	28.322
	640 X 480	VGA	31.469	59.940	25.175
	640 X 480	VGA	37.861	72.809	31.500
	640 X 480	VGA	37.500	75.000	31.500
For K08AS K10AS only	800 X 600	SVGA	37.879	60.317	40.000
	800 X 600	SVGA	48.077	72.188	50.000
	800 X 600	SVGA	46.875	75.000	49.500

11-2. K12 / K15 / K17 / K19 serial

Display Size	Resolution	Type	H. Scan(KHz)	V. Scan(Hz)	Pixel(MHz)
12.1" SVGA 12.1" XGA 15" XGA 17" XGA 19" XGA	640X350		31.47	70.09	25.18
	640X400		24.83	56.42	21.05
	720X400		31.47	70.09	28.32
	640X480	VGA	31.47	59.94	25.18
	640X480		35.00	66.67	30.24
	640X480		37.86	72.81	31.50
	640X480		37.50	75.00	31.50
	800X600	SVGA	35.16	56.25	36.00
	800X600		37.88	60.32	40.00
	800X600		48.08	72.19	50.00
	800X600		46.88	75.00	49.50
	For 12.1" XGA 15" XGA 17" SXGA 19" SXGA only	1024 X 512		34.39	60.00
1024X768		XGA	48.36	60.00	65.00
1024X768			56.48	70.00	75.00
1024X768			60.02	75.00	78.75
For 17" SXGA 19" SXGA only	1152X864		67.50	75.00	108.00
	1280X960		60.00	60.00	108.00
	1280X1024	SXGA	64.00	60.00	108.00
	1280X1024		79.98	75.00	135.00

12. Specification

LCD Display		6.4" / 8.4" / 10.4" / 12.1" 15" / 17" / 19" TFT Active Matrix Panel
Panel Max. Resolution	6.4"	VGA 640 x 480
	8.4"	SVGA 800 x 600
	10.4"	SVGA 800 x 600
	12.1" SVGA	SVGA 800 x 600
	12.1" XGA	XGA 1024 x 768
	15"	XGA 1024 x 768
	17"	SXGA 1280 x 1024
Input Signal	Video	R.G.B. Analog 0.7V _{peak-peak}
	Sync	TTL Positive or Negative
Signal Connector	Analog	15 Pin D-Sub
	Digital (Option)	24 -pin DVI-D (for 12.1" ~ 19" only)
Plug & Play		DDC1 / 2B Compatible
Touch Screen (Option)		USB A Type or RS232 or Combo
Video system (Option)		RCA, S-Video
Power	6.4" 8.4" 10.4" 12.1" 15" Power Adapter	Input AC 100~240Vac, 50~60Hz, Output DC 12V / 3A (min) . Marked with "LPS (Limited Power Source)" Power Adapter.
	17" Power Adapter	Input AC 100~240Vac, 50~60Hz, Output DC 12V / 4A. Marked with "LPS (Limited Power Source)" Power Adapter.
	19" Internal Power	Universal 100 ~ 240Vac, 50~60Hz, 1.5A AC input
Operating Conditions	Temperature	0 °C ~ 40°C (32°F ~ 104°F) [Note]
	Humidity	20% ~ 80% (no condensation) [Note]
	Altitude	To 10,000 Feet
Storage Conditions	Temperature	-20°C ~ 60°C (-4°F ~ 140°F) [Note]
	Humidity	10% ~ 90% (no condensation) [Note]

Compliance	FCC / CE
Waterproof & Dustproof level ~ IP54 (Front panel optional)	K06AV / K08AS / K10AS / K12TS / K12TX / K15TX / K17TH / K19TH

- Specifications are subject to change without notice.

[Note]

For quality performance. Please refer the graph below for the corresponding of temperature and humidity.

