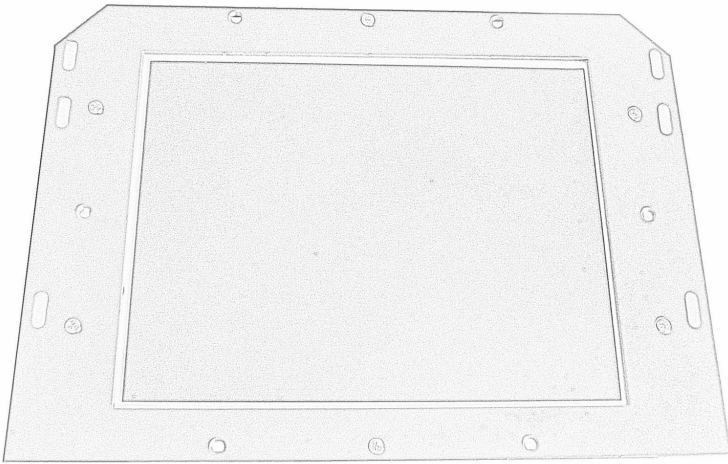


**RGB/EGA/CGA/MDA Monitor
(MODEL KTV148 FANUC V2.5)
FANUC A61L-0001-0096**



Operation Manual

**Version 2.5
2016-08**

Safety Precautions

- Please read this manual carefully before using the product. Remind to keep this manual in case of later reference.
- About the screen:
 - Please do not block or cover the ventilation holes of the screen. This can influence the heat dissipation.
 - Please keep the screen away from rains or wet conditions in case of electric shock or equipment damages.
 - If unused for a long time, please pull the plug.
 - Maintenance devices are not provided with the product. Please do not repair the product personally in case of electric shock danger.
 - Please do not directly touch the screen with hands or other devices in case of scratches. Grease dirt on the screen would not be easily erased.
 - Please do not push or press the screen, which could possibly result in screen unbalance and other screen troubles.
- About working conditions:
 - Please place the screen in a fixed and stable position to avoid machine resonances.
 - Please place the screen in a well-ventilated position.
 - Please do not place the screen in hot, cold or wet environment. Please do not place the screen under the sun or dust place.
 - Please do not place the screen in high-intensity magnetic fields.

Maintenance

- Please turn off the power before cleanness or maintenance.
- Please clean the LED screen with soft cloth in case of screen scratches.
- Please do not directly sprinkle the liquid upon the screen or the housing. Chemical cleaning agents may damage the screen.
- If unused for a long time, please turn the power off.

Packing Contents

- 1 LCD monitor
- 1 Pcs Cable
- 1 product manual
- Ex-factory QC inspection label

Warranty Policy and Technical Support

The high quality work enables us to provide 12 months warranty for proper functioning. Our company first provides users with full-scale telephone and network technical support. For detailed information, please contact the retailers.

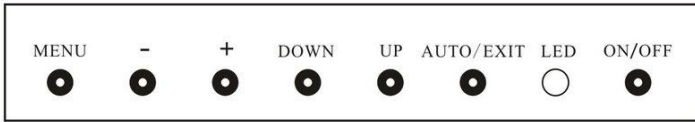
Based on long-term experience on industrial monitor maintenance and renewal, and clients' requirements and feedbacks, the Kongto Technology Limited. launches innovated new products, including RGB/EGA/CGA/MDA LCD Monitor with better display effects and convenience (model: KTV148 FANUC). Based on the original industrial CRT monitor, transformer, video baseboard and CRT monitor baseboard technologies, the new products can totally replace the old products with more affordable price and more convenience.

For further introductions to KTV148 FANUC RGB/EGA/CGA/MDA Monitor, please refer to the detailed information below:

Feature specifications:

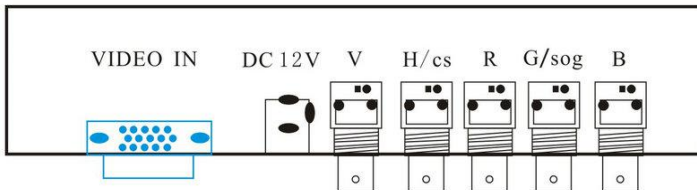
Type	KTV148 FANUC RGB/EGA/CGA/MDA Monitor	
Screen size	246*184.4mm(length*width), 12.1 inches, 4:3	
Horizontal (H)	15Khz to 48Khz automatically recognized	
Vertical (V)	48hz to 75hz automatically recognized	
Input	Signals	MDA、CGA、EGA、VGA RGB、RGsB(RGB Sog)、RGSB、RGBHV signals
		Supports digital and analog video signals TTL digital : 2.4 ~ 5.0V or Low 0.0 ~ 0.8V Analog: 0.7-2.5VP-P
Scanning mode	Support Interlaced Scanning and Line by Line Scanning.	
Interface Types	HONDA 20 Pin, 9Pin, 5BNC input	
Color Supported	262K, Monochrome, Black & White	
Contrast Ratio	450: 1	
Brightness	400 cd/m2 (Typ.)	
Response time	15/30 (Typ.)(Tr/Td) (ms)	
Working conditions	Temperature: -10 ~ +65, humidity: 20% ~ 95%	
Storage conditions	Temperature: -30 ~ +70, humidity: 10% ~ 95%	
Dimension	With framework: 305*240*160mm	
Power Supply	AC100 - 240V (50 / 60Hz) Power Consumption: 18W	
Net weight	4.0Kg	

Instructions on LED Keys and Indicator Lights



1. MENU: to control the OSD display, select or exit the adjusted items.
2. “-”: to decrease the selected values or the items to be changed after entering the menu.
3. “+”: to increase the selected values or the items to be changed after entering the menu.
4. DOWN: to select the lower submenu or menu items in the OSD menu interface or submenu interface.
5. UP: to select the upper submenu or menu items in the OSD menu interface or submenu interface.
6. AUTO/EXIT: to adjust the parameters to the best display effects under non-OSD menu interfaces (Partial items should be adjusted manually); to return to the previous menu under OSD menu and data can be automatically saved before exiting from the OSD menu.
7. LED: monitor power indicating light: Yellow light under normal working state; Red light on standby.
8. ON/OFF: to switch the monitor on or off.

Instructions on Monitor Interfaces

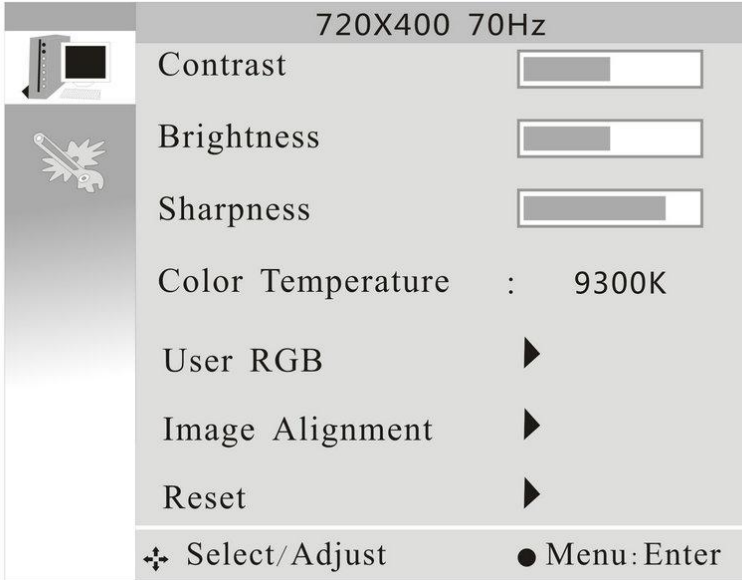


1. CN1 (FANUC): FANUC HONDA 20 pin signal input
2. DC 12V: monitor power supply input port (for power adapter connection use)
3. V: BNC connect V interface of the input device
4. H/cs: BNC connect H(CS) interface of the input device
5. R: BNC Red signal input
6. G/sog: BNC Green signal input/ Sog signal input (Sog mode)
7. B: BNC Blue signal input

Instructions on OSD Menu

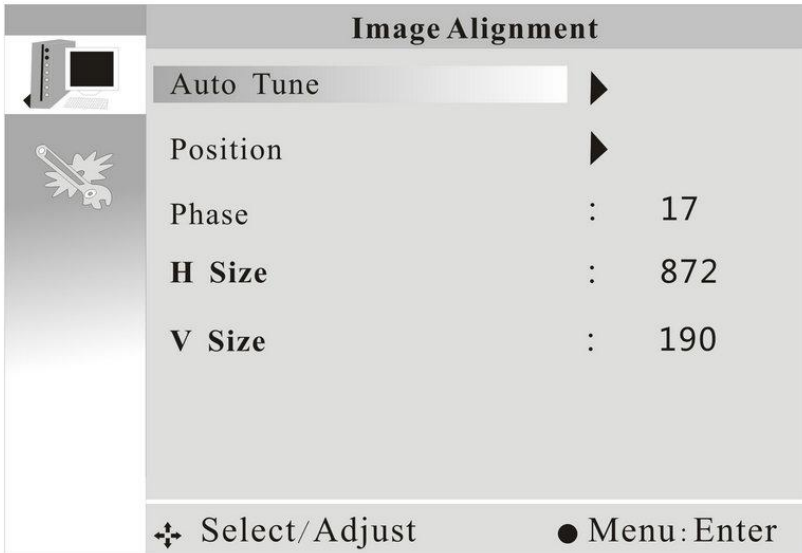
If the screen indicates “cable dis-connected”, please check the video cable, horizontal frequency, field frequency or ground signal.

General settings





- Contrast: for screen contrast adjustment
- Brightness: for screen brightness adjustment
- Sharpness: for screen clarity adjustment
- Color Temperature: 9300K (cold tone), User (factory tone), 6500K (standard tone), 7500K (cold tone). Colors can be decided by clients.
- User RGB: submenu is RGB (red, green, blue) three primary colors. Monochromatic option can optimize the display.
- Image Alignment: submenu includes automatic adjustment, position, phase position, H size and V size. Below are the relevant instructions.
- Reset: to reset the general parameters and restore factory settings.

Image settings



- Auto Tune: submenu option: “Yes”. The screen would adjust the geometric parameters of the image automatically.
- Position: horizontal and vertical adjustment of the image. Please press the “UP” and “Down” (+,-) to set the value.
- Position: horizontal phase position adjustment.
- H Size: to adjust the horizontal size of the image. The image would be compressed when the H size decreases; the image would be magnified when the H size increases. H size adjustment should coordinate with the position adjustment.
- V Size: to adjust the vertical size of the image. The image would be compressed when the H size decreases; the image would be magnified when the H size increases. H size adjustment should coordinate with the position adjustment.

Settings

Feature Controls		A0608V06
	Auto Color	▶
	Screen Test	▶
	Language	: English
	Input Source	: PC
	OSD Timer	: 60 S
	Auto Color Level	: Auto
✦ Select/Adjust		● Menu: Enter

- Auto Color Adjustment
- Screen Test: factory use functions
- Language: OSD language options
- Input source: PC, retention function
- OSD timing: OSD menu screen timing
- Auto Color Level: for color adjustment

OSD Adjustment Items (Operating Steps)

- 1、 The AUTO/EXIT button can automatically identify the signal intensity, position, sizes, color adjustment. The button should be repeatedly used for the first time. (The 2,3,4 steps can be skips if ideal display effects have been achieved.)
- 2、 According to the identified results of the former step, the OSD video image submenus should be adjusted: press the “Yes” button to adjust to the best position. This tuning position is more precise than the former step.
- 3、 According to the identified results of the former step, the OSD video image submenus should be adjusted with the V size. The value should be over 2 units with the ghosting display. The relevant values should be adjusted until complete contents can be shown on the screen.
- 4、 According to the identified results of the former step, the OSD video image submenus should be adjusted with the H size. The relevant values should be adjusted until complete contents can be shown on the screen.
- 5、 According to the identified results of the V and H size, the vertical and horizontal displacement should be modified. This step should coordinate with the V and H size adjustment.
- 6、 Color adjustment: the RGB display should be adjusted according to the RGB submenus in the OSD menu until the best display effects. Monochromatic signals can also be adjusted through this principle.

(Please note: when data are in disorder in the OSD menu, screens can be connected to PC standard VGA signal source. Through “Reset” button, OSD menu can be reset to factory settings. Then please follow the above operating steps.)

OSD auxiliary optional adjustment items

- Contrast: for screen contrast adjustment
- Brightness: for screen brightness adjustment to adapt the working environment.
- Clarity: for screen clarity adjustment
- Chromatic aberration: 9300K, User, 6500K, 7500K. Colors can be decided by clients.
- User-defined RGB: submenu is RGB (red, green, blue) three primary colors. Monochromatic option can optimize the display.
- Phase position: horizontal phase position adjustment, which helps increase the clarity.
- Reset: reset the partial parameters. Some parameters should be set in submenus when data are in disorder.
- Language: OSD language options, please select the appropriate operating languages.
- OSD timing: set the menu display timing. Default settings are recommended, too short settings are against operations.