



**Monitor-/Keyboard
Drawer**

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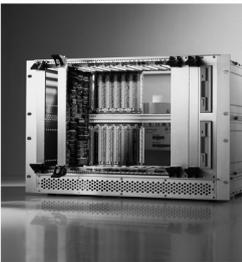
Manual english



Schaltschrank-Systeme
Industrial Enclosures
Coffrets et armoires électriques
Kastsystemen
Apparatskåpssystem
Armadi per quadri di comando
Sistemas de armarios
インダストリアル エンクロージャー



Stromverteilung
Power Distribution
Distribution de courant
Stroomverdeling
Strömfördelning
Distribuzione di corrente
Distribución de corriente
分電・配電システム



Elektronik-Aufbau-Systeme
Electronic Packaging
Electronique
Electronic Packaging Systems
Electronic Packaging
Contenitori per elettronica
Sistemas para la electrónica
エレクトロニクス パッケージシステム



System-Klimatisierung
System Climate Control
Climatisation
Systeemklimatisering
Systemklimatisering
Soluzioni di climatizzazione
Climatización de sistemas
温度管理システム



IT-Solutions
IT Solutions
Solutions IT
IT-Solutions
IT-lösningar
Soluzioni per IT
Soluciones TI
ITソリューション



Communication Systems
Communication Systems
Armoires outdoor
Outdoor-behuizingen
Communication Systems
Soluzioni outdoor
Sistemas de comunicación
コミュニケーションシステム

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2 Documentation notes

The audience for this guide is the technical specialist familiar with the assembly, installation and operation of the Monitor-/ Keyboard Drawer. You should read this operating guide prior to commissioning and store the guide so it is readily accessible for subsequent use. Rittal cannot accept any liability for damage and operational malfunctions that result from the non observance of this guide.

2.1 Safety standards

Standards and Certifications:

- EN 55022
- EN 55024
- EN 60950
- EN 61000-3-2
- EN 61000-3-3
- FCC Class B

2.2 Retention of documents

This guide and all associated documents are part of the product. They must be given to the operator of the unit and must be stored so they are available when needed..

2.3 Symbols used

The following safety and other notes are used in this guide:



Danger!
Immediate danger to health and life!



Warning!
Possible danger for the product and the environment!



Note!
Useful information and special features.

2.4 Country specific informations

By an integrated wide range power supply (100-240 V) and an exchangeable keyboard international application is possible.

3 Safety instructions

The monitor-keyboard drawer passes a 100% quality check before shipping and should not be used in the case of any damage.



Warning!

The device should be operated in clean and dry industrial environment.
Operating temperature is 0 ° C to 50 ° C.



Warning!

The electrical installation environment has to be according to appropriate requirements acc. IEC. An appropriate power supply has to be ensured.



Warning!

Changes or repairs of the product are only allowed to be done by the manufacturer or authorised organisations. Otherwise warranty is void.



Danger!

Please disconnect from power before any maintenance or repair.



Note!

The device must be packed in the original packaging for any transportation issues.

4 Description

4.1 General

Compact monitor-keyboard drawer with 17" LCD display for integration in standardized 19" computer/serverracks.

This device allows direct access to one server or more servers via a KVM switch (keyboard-video-mouse). The ergonomic and shapely design unit slides smoothly on ball bearing telescoping slides. The provided plastic energy chain ensures a durable guidance of the cables. Single person installation is provided through preassembled slides, which are separately installed into the server rack.

The industrial quality 17" LCD display shows brilliant pictures up to a native resolution of 1280 x 1024 pixels. A compact keyboard with an integrated touchpad can be connected via PS/2 or USB interface. These keyboards are available in different country layouts.

The LCD display technology saves valuable rack space and reduces the heat load of the server rack.

4.2 Technical data

4.2.1 Display

display size:	17"
visuable area(mm):	337.920 (H) x 270.336 (V)
optimal resolution:	SXGA, 1280x1024 Pixel
colours:	16,7 Mio.
luminance (typ.):	350 cd/m ²
contrast (typ):	1000:1
viewing angle (vert.):	+80°/-80°
viewing angle(hor.):	+80°/-85°
power consumption:	32 W (max.), < 3 W Standby
current:	2,7A (max.)
response Time:	5 ms on/off
MTBF:	Display 100.000h
backlight lifetime:	50.000h (typ.)
operating temperature:	0°C to 50°C
storage temperature:	-10°C to 60°C

4.2.2 power supply

voltage:	100-240 VAC, 50 Hz / 60 Hz
connector:	IEC

4.2.3 keyboard and mouse

keyboard and mouse can be connected via PS/2 **OR** USB .



Note!

If keyboard and mouse are connected via PS/2 and USB at the same time, they will not work!

4.2.4 Enclosure

dimensions:	483 mm * 44 mm * 500 mm (W*H*D)
weight:	10kgs
mounting depth:	650-850mm

4.3 Supply schedule

- Monitor-keyboard drawer (1x)
- Telescoping slides (2x)
- Mounting brackets (4x)
- Power cord (1x)
- VGA-cable (1x)
- DVI-cable (1x)
- PS/2-cable (2x)
- USB-cable (1x)
- Mounting hardware (1x)
- Manual (1x)

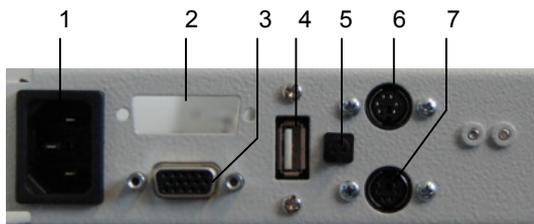
5 Installation

5.1 Required tools

- screwdriver TORX TX20
- screwdriver PZ2

5.2 Installation process

- Position the cage nuts.
- Adjust preassembled telescoping slides to rack depth.
- Fix slides centered in the rack height.
- Tighten screws properly, also tighten screws of the rear mounting bracket.
- Push drawer into the slides.
- Fix rear connection panel to the rear mounting brackets, take care of proper cable management.
- Connect keyboard/mouse via PS/2 cable (6 [mouse] / 7 [keyboard]) **or** via USB-interface (4). Connect VGA-cable (3). Optional you can connect DVI-cable (4). The optional KVM can be supplied with power through connector (5). Now connect the power cord (1).



Rear connection panel

- The device is now ready for usage.



Note!

For shorter depth racks you can install the device without the rear connection panel. Please ensure proper grounding of the device.

5.3 Exchange cables in the energy chain



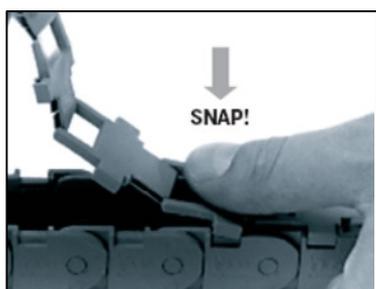
Danger!

Please disconnect from power before any maintenance or repair.

Remove power cord.
To exchange the VGA cable against the DVI cable, the energy chain has to be opened.
Pull off the cover starting from the end.



Remove the screws at the rear connection panel (3), disconnect the VGA-cable on device side. Remove the cable from the energy chain. Mount the supplied DVI cable in the opposite sequence. Close the cover of the energy chain.



6 Handling

After a successful installation the device is immediately ready to use.

Pull the unit completely out of the rack. Open the display, the display should start automatically.

Otherwise you can switch on power at the OSD menu.



Note!

The graphics settings on the computer should be equal to the display:
Resolution max. 1280 * 1024,
refresh rate 60 Hz.

6.1 Keyboard

The keyboard is equipped with 3 status LEDs. These show Num Lock, Scroll Lock and Caps Lock. The LED shows the status of the relevant function.

6.2 Touchpad

A tip on the touchpad equals a click with left mouse button, i.e. a double click starts a program. Keyboard and mouse do not require a special driver.

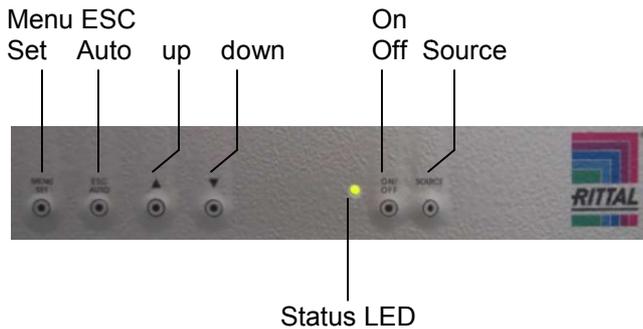
6.3 Display settings

6.3.1 Possible display resolutions

H-resolution	V-resolution	V-frequency
640	480	60
640	480	72
640	480	75
640	350	70
720	400	59,940
800	600	60
800	600	72
800	600	75
1024	768	60
1024	768	70
1024	768	75
1280	1024	60
1280	1024	75
1280	768	60
1366	768	60
1440	900	60
1680	1050	60

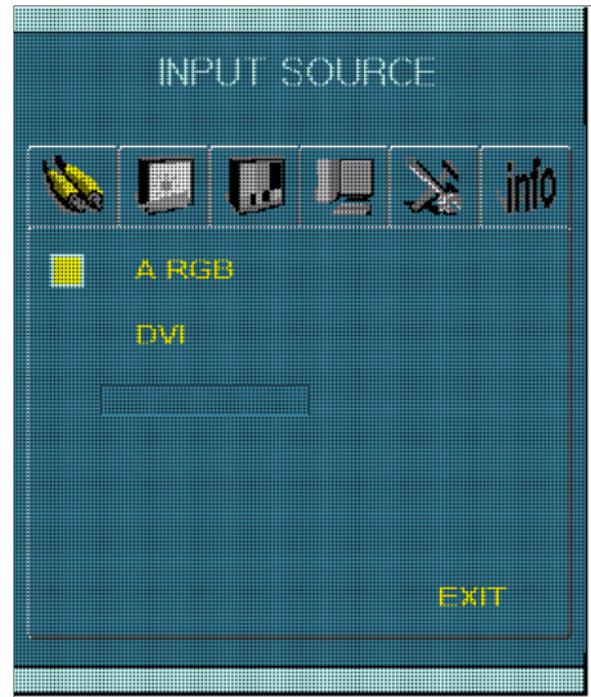
6.3.2 Monitor settings

Settings of the monitor can be changed through the OSD menu (On-Screen-Display). The OSD can be operated by the buttons at the front of the display housing. The monitor recognises the signal of the computer and makes a self adjustment. Through the OSD-menu you can adjust the settings manually.



- Source – The display scans automatically for the video signal. If analogue and digital are connected, you can switch between the two signals
- ON/OFF: manual off or on of the monitor.
- Menu Set: starts the OSD-menu. Pushing set saves the chosen setting.
- ESC / Auto: Makes an auto-adjustment if OSD-menu is off and with an analogue signal. If OSD-menu is on you get to the main menu or leave the OSD-menu.
- UP/Down: For selection of the different options. If OSD is off it adjusts brightness or contrast directly.

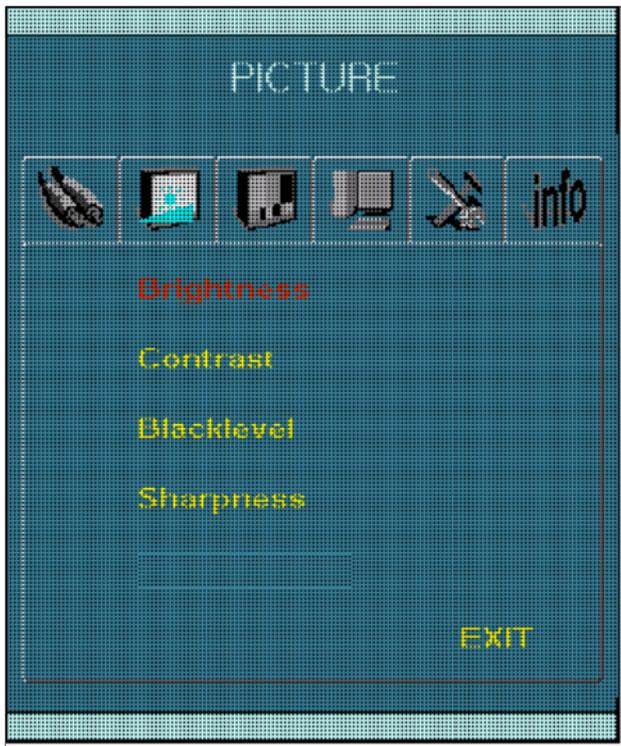
6.3.3 OSD navigation



Main menu	Sub menu	Function
Input Source	A RGB	selects analogue signal
	DVI	Selects digital signal
	EXIT	Back to main menu

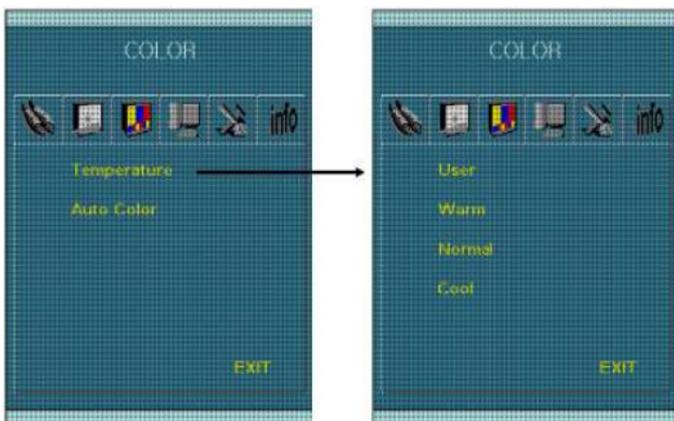
6 Handling

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Main menu	Sub menu	Function
Color	Temperature	Selects color temperature in analogue mode, User, Warm, Normal or Cool.
	Auto-Color	Auto adjustment
	EXIT	Back to main menu

Main manu	Sub menu	Function
Picture	Brightness	Adjust brightness of the Screen
	Contrast	Adjust contrast of the Screen
	Blacklevel	Adjust black level
	Sharpness	Selects sharpness
	EXIT	Back to main menu



Main menu	Sub menu	Function
Image Control In analogue mode only	Auto	Auto adjustment
	Width	Horizontal picture size
	Phase	Picture phase
	H Position	horizontal position of picture
	V Position	vertical position of picture
	EXIT	Back to main menu

6.4 Closing of the drawer

After usage of the drawer just close the monitor completely and push it back into the rack.



Note!

There is no additional release mechanism for pushing the unit into the rack. The telescoping slides are equipped with a simple forced push release.

7 Maintenance

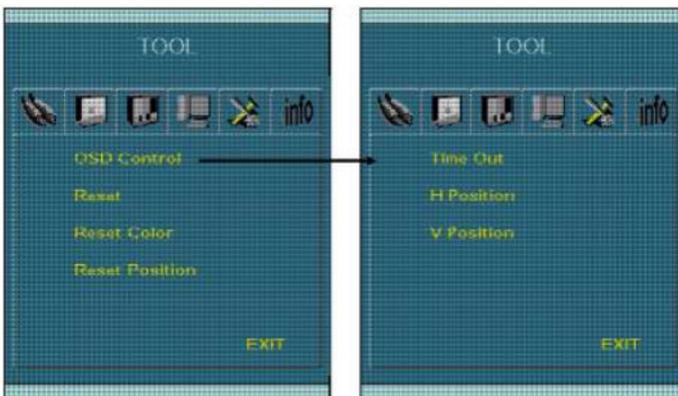
In particular there is no service schedule necessary. Recommended is a regular check of all cables and connectors for possible damages or properconnections.



Danger!

Before cleaning disconnect the unit from power.

Never use liquids or aggressive cleaners for cleaning, just dry clothes.



Main menu	Sub menu	function
Tool	OSD Control	Time out of OSD-menu Horizontal position of OSD-menu Vertical Position
	Reset	Reset of OSD settings
	Reset Color	Reset of color settings
	Reset Position	Reset position
	EXIT	Back to main menu

8 Storage and disposal

EN

8 Storage and disposal

Just store in dry environment, storage temperature is -10°C to -60°C, without direct sunlight exposure or other heat sources.
Storage humidity is 10% to 90% rF, non condensing.
Protect against dust.

In the case of a disposal of the unit please take care of a proper and legally adequate recycling.