KLM-PS

KLM-PS
Operating Instructions

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Content

1. Introduction:

Thank you for purchasing the **KLM-PS**, a flexible plotter that helps you label marking elements quickly and easily.

- Rugged construction in stylish aluminium

- Labelling area A3 size 440 mm x 305 mm, A4 size 220 mm x 305 mm

- Easy to change fixtures to suit a variety of marking elements

- Automatic fixture recognition largely avoids the need to select marking elements

- Optimum plotter pen seal. The pens can be stored in the plotter's pen station

- Auto calibration no adjustment necessary

- Capable of labelling marking elements up to 10.5 mm in height.
  Special solutions for up to 15 mm are possible

- Universal power supply of 100-240V AC

- The special start-up function for the plotter pens ensures neat labelling right from the very first marking element

- PC interfaces: centronics parallel and USB ports

- Control language: HPGL

- I/O interface for connecting peripheral equipment, e.g. handlings, etc.

- Material held in place by vacuum contact (option)

- Possible to update **KLM-PS** software through PC connection and downloading from the Internet
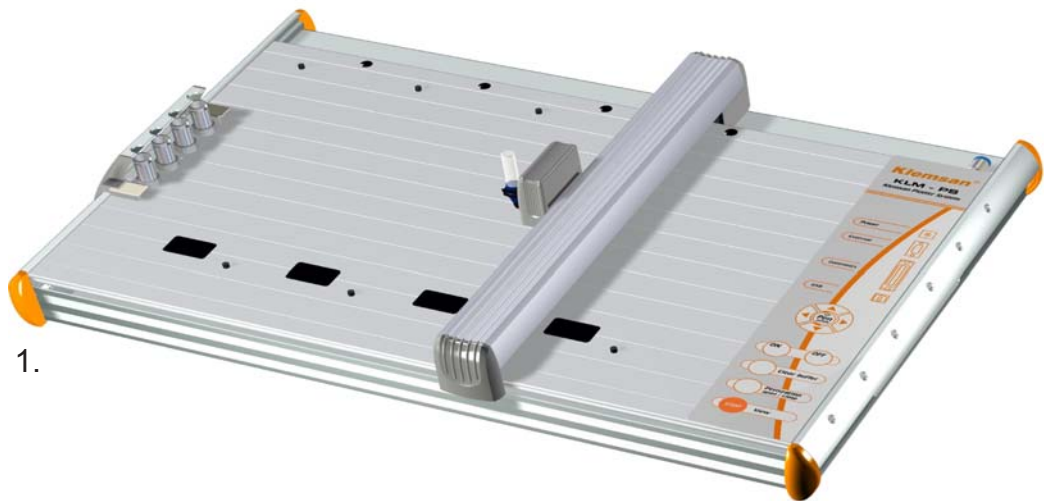
2. Items supplied

Please check you have received all the items supplied with your labelling device (see list below).
Please retain the packaging in case you need to return the device.

The following items are supplied as standard:

■ 1. Plotter **KLM-PS**

■ 2. Power supply with corresponding mains power cord

■ 3. Centronics parallel cable

■ 4. USB cable

■ 5. Operating instructions

1.

2. 3. 4. 5.

▪ 3. Product overview
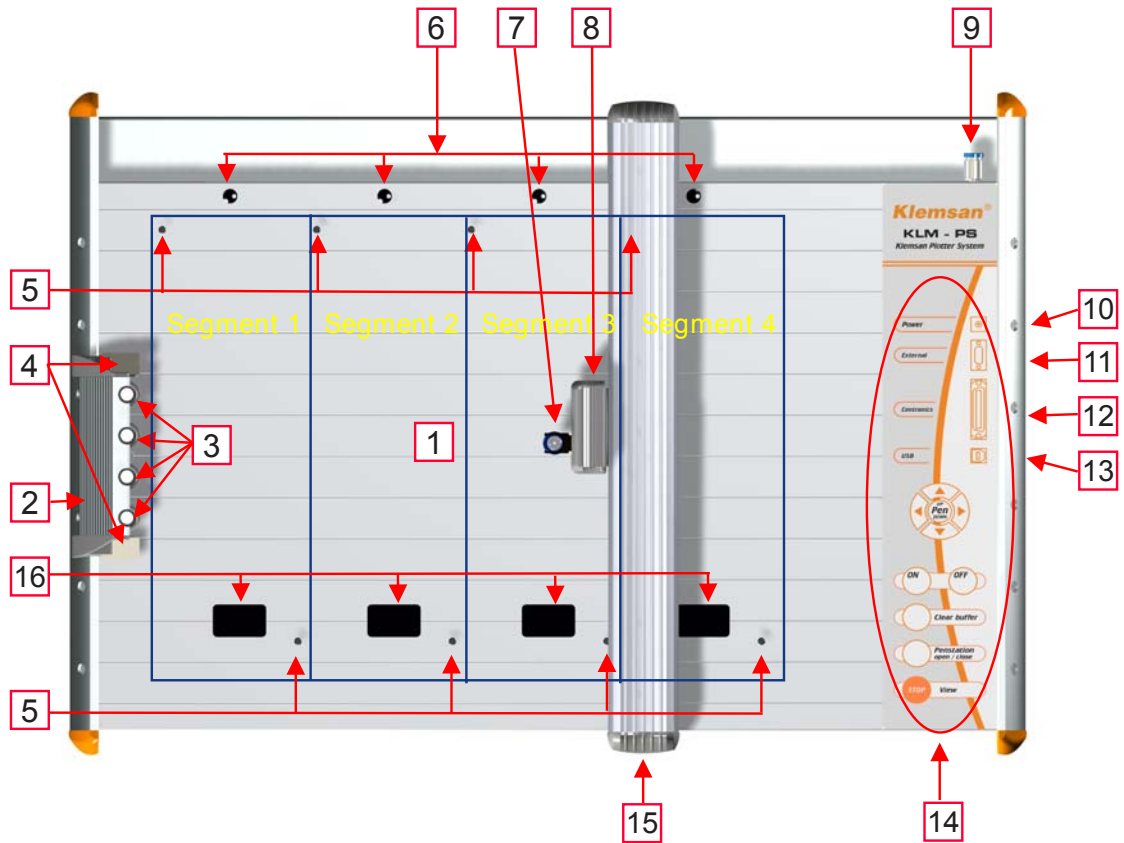
1) Plotting area
2) Pen station
3) Sealed storage holders in pen station
4) Start-up writing area
5) Pin stops for fixtures
6) Vacuum supply for the individual segments
7) Penholder
8) Drop pen unit
9) Vacuum connection point
10) Mains connection
11) Interface for optional external devices
12) Centronics printer port
13) USB port
14) Control panel/control keys
15) Writing arm
16) Fixture recognition sensors

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■ 4. Setting up the Plotter KLM-PS

LOCATION
A dry, dust-free room is the ideal environment for the plotter. If possible, do not install the device in damp or very dusty areas. Do not expose the system to direct sunlight. Please ensure that the connections on the right-hand side of the device are accessible at all times. Position the **KLM-PS** firmly on the work surface where it is to be used, ensuring it is level.

Please ensure that the writing arm can move freely and is not obstructed by other objects.

CONNECTIONS
Plug the device into a correctly installed mains socket using the power supply included with the product.
The power supply features a variable AC input voltage of 100-240V~50-60Hz.
The power connection can be replaced by way of adapter plugs.
Plug the connector from the output cable on the power supply into the top right-hand side of the plotter.

Then hook up the device using either the centronics parallel or USB cable provided.
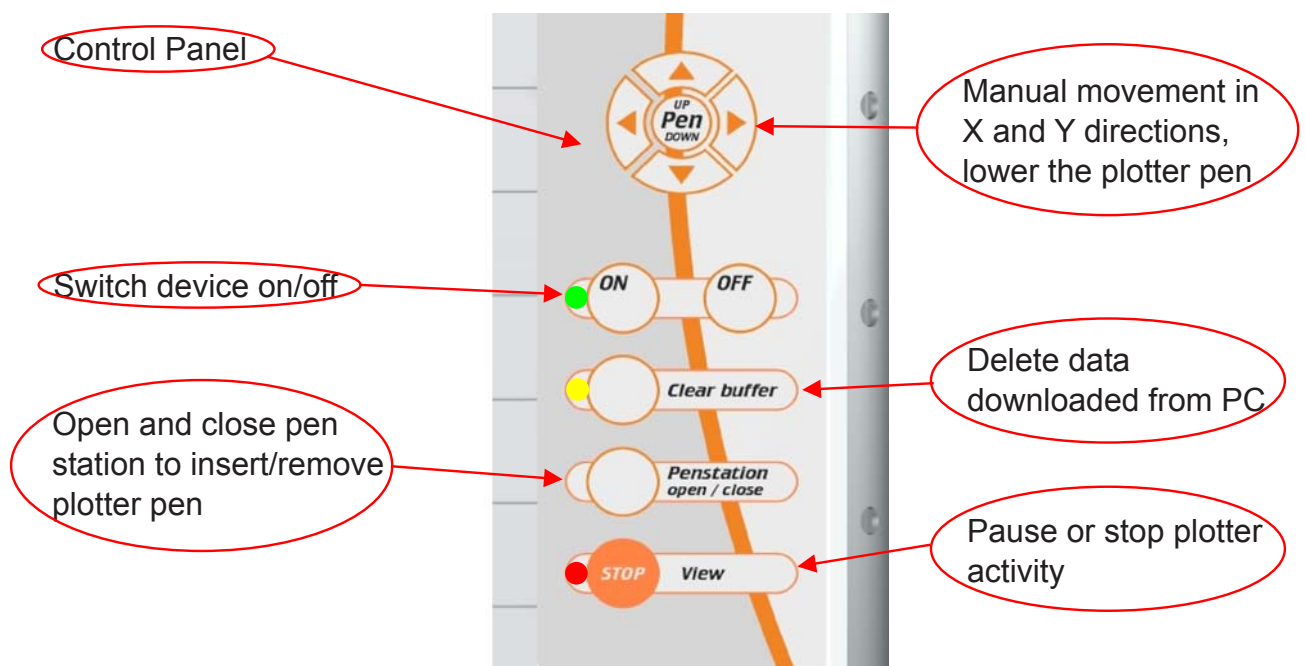The respective ports are located on the right-hand side of the **KLM-PS**.

5. Operation

Once you have installed the **KLM-PS** and connected the power supply and data cable, you can switch the plotter on.

Important:
Before switching the device on please ensure that there are no objects on the writing/plotting area which might prevent the writing arm from moving freely.

All settings and commands are entered using the control panel.

Control Panel

Manual movement in X and Y directions, lower the plotter pen

Switch device on/off

Delete data downloaded from PC

Open and close pen station to insert/remove plotter pen

Pause or stop plotter activity

ON/OFF buttons
The ON/OFF buttons are used to activate and deactivate the device. When the plotter is switched on, the writing arm moves to the top right-hand corner of the labelling area and auto calibration takes place. The green light comes on when the system is ready for use and to receive data from the PC.

Clear buffer
If the **KLM-PS** contains data the yellow light will come on. You can delete this data by pressing the 'Clear buffer' key.
To do this the system must be in stop mode (red light on).

Open/close pen station

Before using the **KLM-PS**, insert the plotter pen with the desired tip width into the pen station.

Important:

Only plotter pens of the types shown here may be used as the sealing system is designed specifically for these plotter pens. Using other plotter pens and writing instruments may damage the device.

To insert plotter pens into the pen station, press the 'Penstation open/close' key. This is only possible when the system is in stop mode. When the pen station has been opened, you can insert the plotter pens into the corresponding storage holders and then re-close the pen station by pressing the open/close key again.

➡ *Please note:*

Do not leave the pen station open for extended periods as there is a danger the pens will dry out. You can leave plotter pens in the pen station because the optimised seal largely prevents pens from drying out. If the storage holders become soiled over time you can replace them. The procedure for changing the storage holders can be found in the accessories section.

➡ *Please note:*

Should you wish to use other plotter pens with HP fixing system, you must insert them directly into the writing arm holder and ensure that they are not stored in the pen station.

Stop/view key

If the 'stop/view' key is activated while the plotter is in action, the job will pause immediately and the plotter pen will move into the top right-hand corner. The red light will signal the interruption. Pressing the key again will calibrate the writing arm and the plotter will continue with the job. The red light will go out.

Important:

Inserting a pen into the writing arm holder by hand can involve inadvertently moving the writing arm and compromising calibration. After inserting the pen, press the 'stop/view' key twice in succession to recalibrate the system.

Cursor keys / Pen up/down key

These keys can be used to move the writing arm manually in all directions. The 'pen up/down' key lowers and raises the plotter pen. The system must be in stop mode.

➡ *Please note:*

These key functions are not used for normal operation. They are intended solely for adjusting settings and carrying out servicing.

Placing the fixtures on the Plotter
There are eight pin stops on the plotting area where up to four different fixtures can be loaded. Different fixtures are available depending on the size of the marking elements. They can occupy one, two or four segments on the plotting area.

➜ *Please note:*
When fitting fixtures or inserting marking elements into the fixtures it is possible for the writing arm to be moved out of place, altering the calibration.
If the writing arm is moved, press the 'stop/view' key twice in succession to recalibrate the system.

Different size fixtures:
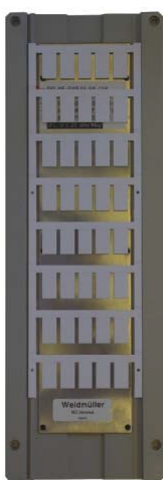
1 segment   2 segments   4 segments

Placing the elements in the fixtures
Choose the appropriate fixture for the elements to be labelled and insert the elements carefully into the fixture. You can also add the elements first and then place the fixtures in the plotter.

6. Cleaning and product care

Protect the **KLM-PS** from dust and other dirt. When not in use, cover the plotter.
A special cover is available as an accessory.

Wipe the device occasionally after use with a dry, lint-free cloth or a mild cleaning agent.

If the pen station storage holders are heavily soiled, please replace them.
The description for the sealed unit can be found in the section on accessories.

Important:
Under no circumstances use harsh cleaning products to clean the plotter.
Never oil the mechanical parts of your plotter.

7. Accessories

Plotter Pen-R	available in six tip-widths	

■ 0.18 mm □ 0.25 mm ■ 0.35 mm ■ 0.50 mm ■ 0.70 mm ■ 1.00 mm

Ink Cartridges

Pen holder

Plotter Pen-D   available in six tip-widths

■ 0.18 mm □ 0.25 mm ■ 0.35 mm ■ 0.50 mm ■ 0.70 mm ■ 1.00 mm

Cleaning Set

Pen Cleaner

Cleaning Fluid

Dust Protection Cap

Service Kit for Pen-Station

TO EXCHANGE A SEALING UNIT IN THE PEN STATION:

To remove the sealing station from the pen station:	To insert the sealing station into the pen station:	To adjust the sealing station in the pen station:

TO REMOVE ONE OF THE SEALING UNITS FROM THE PEN STATION:
Firstly open the pen station by pressing the "Open/Close-button".
Apply the enclosed key to the sealing unit as illustrated and carefully lever the sealing unit out of the holding device.

TO INSERT AND ADJUST ONE OF THE SEALING UNITS:
Insert the new sealing unit into the pen station. Press the sealing unit carefully up to the limit-stop into the aluminium tube. Now, by use of the key, adjust the sealing unit until the key is parallel with the plotter surface. The opening at the side of the sealing unit should now be centered.

TO EXCHANGE THE PRIMING PLATES (for starting the plotter pen):
The small plates can be removed by pulling them out sideways. Insert the new ones by sliding them into the guide at the side of the clamping device until they fit tightly.

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■ 8. Troubleshooting

If your plotter **KLM-PS** is not functioning correctly, please check the following:

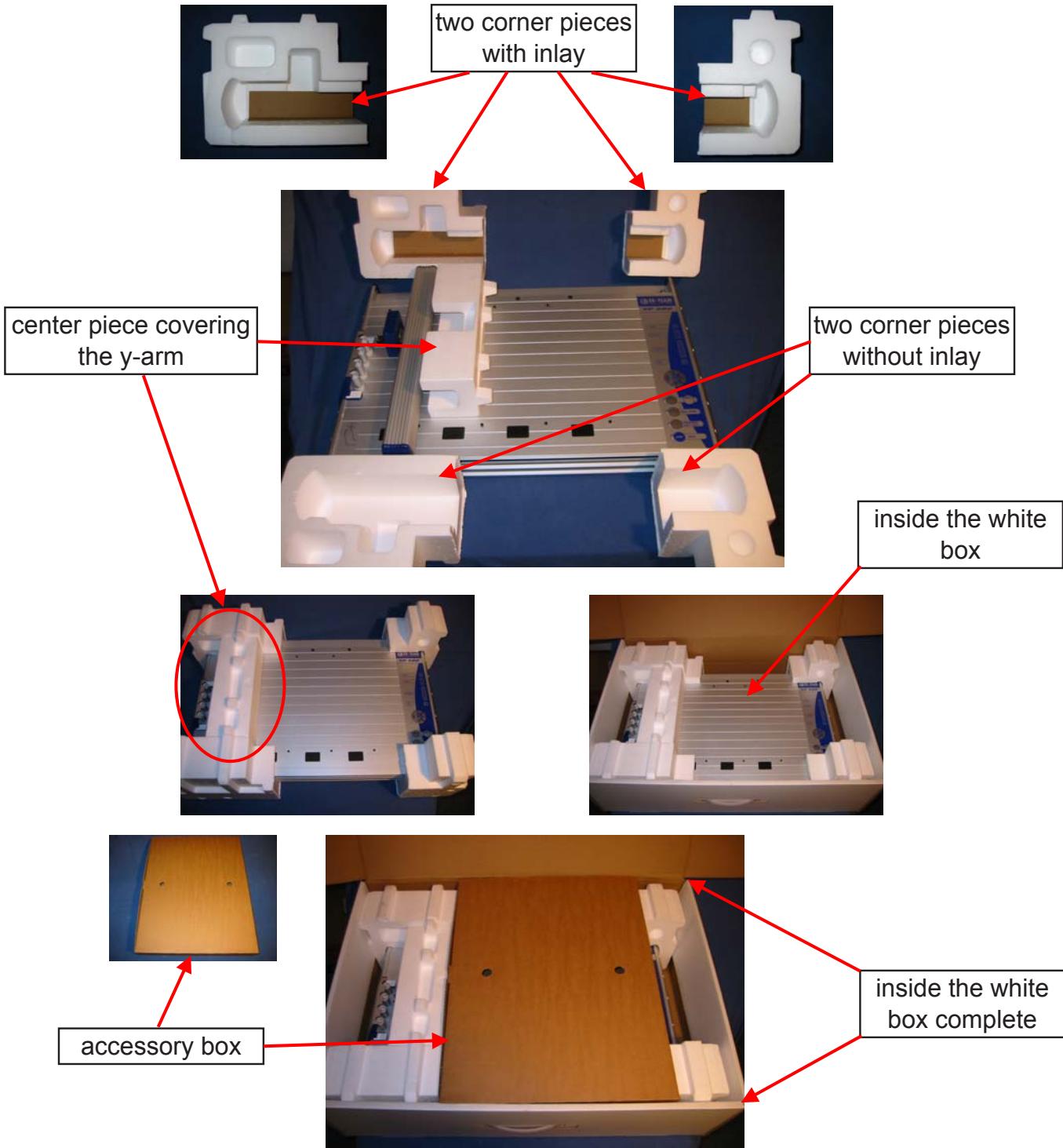|	
Device fails to switch on	Check whether the mains plug and connecting plug are plugged in correctly. Check whether the socket being used is functioning properly. Is the green light on the power supply illuminated? If not, please replace the power supply.
Plotter does not respond to data downloaded from PC	Is the interface cable connected properly? Replace the data cable if necessary. Is the correct interface on the PC being used?
No labelling is taking place even though a plotter pen has been inserted.	Check whether the plotter pen has dried out or if there is sufficient ink in the pen. Refill or replace the pen if necessary.
Poor labelling quality, uneven line thickness, missing items	The plotter pen tip may be soiled. Clean the tip carefully using a lint-free cloth dipped inspecial cleaning fluid. Replace the plotter pen if necessary.

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9. Technical Information

KLM-PS plotter specifications

Type of plotter:	Flatbed plotter
Maximum plotting area:	A3: 440 mm x 305 mm, A4: 220 mm x 305 mm
Plotting speed:	Max. 40 cm/s
Plotter pen:	Special plotter pens with HP fixing
Ports:	Parallel (centronics) / USB Level 1.1
Control language:	Based on HP-GL 7475A
Buffer:	16 MB
Drive:	Two-phase step motor
Pen station:	Max. 4 plotter pens with double seal
Addressable resolution:	.01 mm
Repeat accuracy:	.05 mm
Repeat accuracy after pen change:	.05 mm with optimum pen
Power supply:	Via separate power supply with exchangeable mains power connection
Power supply input voltage:	100-240V AC 50-60Hz
Power supply input current:	.7 A max.
Power supply output voltage:	24 V DC
Power supply output current:	1.25 A max.
Environmental conditions:	In use: 10°C-35°C 35%-75% relative humidity Storage: -10°C-50°C 10%-90% relative humidity
Safety certificate: Interference safety compliance:	EN 60950-1 EN 55022 B EN 61000-4-2 to 6 EN 61000-4-11
Dimensions:	A3: 660 mm (A4: 440 mm) x 440 mm x 125 mm
Weight:	A3: Approx. 8 kg, A4: Approx. 6 kg

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10. Instructions for packaging the plotter KLM-PS

two corner pieces with inlay

center piece covering the y-arm

two corner pieces without inlay

inside the white box

accessory box

inside the white box complete

11. Safety instructions

Safety instructions
●Keep the operating instructions in a safe place.
●This device complies with all recognised technical standards and all relevant safety regulations.
●The mains power supply used must correspond with that specified on the name plate.
●Use in dry conditions only.
●Disconnect the device from the mains socket by pulling the plug, not the cord.
●All repairs, including replacement of mains power supply components, must be performed by a qualified service technician.

Säkerhetsföreskrifte
●Förvara bruksanvisningen på säker plats.
●Denna apparat är tillverkad enligt modern teknik och i enlighet med gällande säkerhetsföreskrifter för elektriska apparater.
●Kontrollera uppgifterna på typmärket innan anslutning till eluttag.
●Apparaten får endast användas i torra utrymmen.
●Dra inte ur kontakten ur eluttaget genom att rycka i sladden.
●Reparationer av denna apparat, inklusive utbyte av el-sladd, får endast utföras av fackman.

Sicherheitshinweise
●Bewahren Sie die Gebrauchsanweisung sorgfältig auf.
●Dieses Gerät entspricht den anerkannten Regeln der Technik und den einschlägigen
●Sicherheitsbestimmungen für Gerätesicherheit.
●Elektrische Anschlussbedingungen und Angaben auf dem Typenschild müssen übereinstimmen
●Gerätenutzung nur in trockenen Räumen
●Netzstecker nicht am Kabel aus der Steckdose ziehen
●Reparaturen an diesem Gerät, einschließlich der Austausch der Netzzuleitung, dürfen nur von Fachkräften durchgeführt werden

Instructions de sécurité

●Conserver ces instructions dans un endroit sûr.

●Cet appareil répond aux normes techniques et satisfait toutes les règles de sécurité.

●Le courant utilisé doit être identique à celui spécifié sur l'appareil.

●Ne pas utiliser cet appareil dans un environnement humide.

●Débrancher l'appareil en tirant sur la prise, pas sur le câble.

●Toutes les réparations y compris le remplacement des composants électriques, doivent être effectuées par un technicien qualifié.

Instrucciones de Seguridad

●Conserve las instrucciones de seguridad en un lugar seguro.

●Este equipo cumple con todas las normas técnicas de seguridad eléctrica y requisitos de seguridad eléctrico aplicables en el país de uso.

●La fuente de alimentación debe corresponderse con los valores de tensión y corriente citados en la placa de identificación del producto.

●Las características de la fuente de alimentación a utilizar con el producto son las siguientes : entrada : 100-240Vca, 50/60Hz, 700mA. Salida : 24Vcc/1,25A

●Utilice el equipo en condiciones secas únicamente.

●Desconecte el equipo de la red de alimentación por medio de la ficha, nunca tirando del cordón.

●Todas las reparaciones, incluyendo el reemplazo del cordón de alimentación, deben ser realizadas por personal técnico calificado.