

• Manual Plotter IP 350

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1. Introduction

Thank you for purchasing the IP 350, a flexible plotter for the quick and simple labeling of marking elements

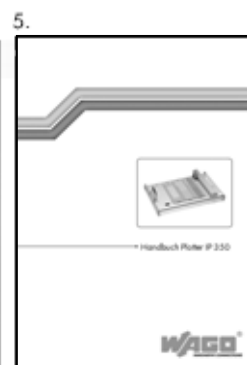
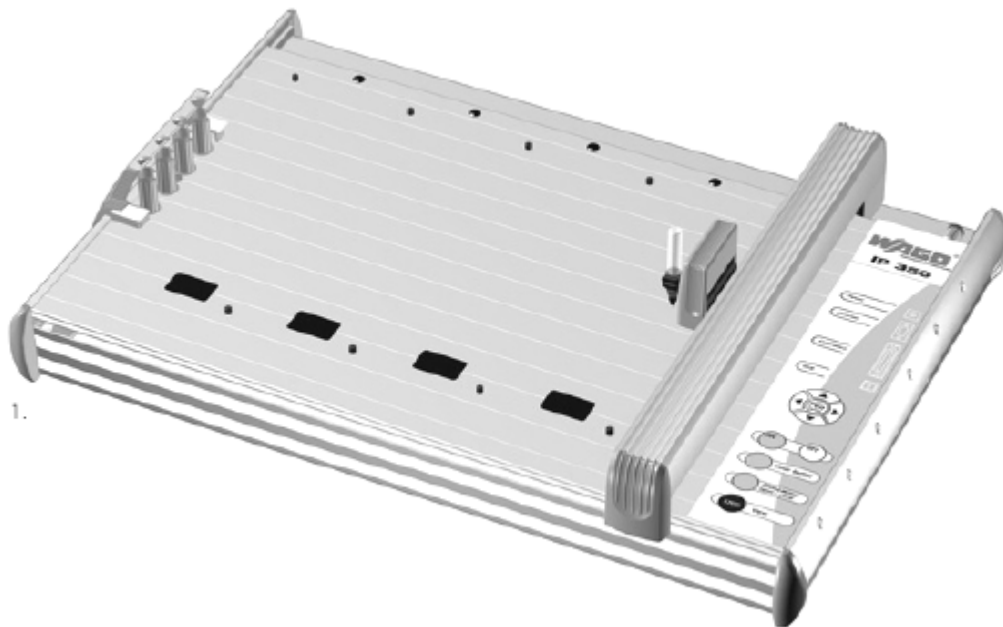
- Rugged construction in stylish aluminum
- Labeling area 440 x 305 mm
- Easy-change holder plates to suit a variety of marking elements
- Automatic holder plate recognition largely avoids the need to select marking elements
- Optimum WAGO plotter pen seal. The pens can be stored in the plotter's pen 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 available.
- 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. handlers, etc.
- Firmware update IP 350 software via PC connection and Internet download

2. Scope of supply

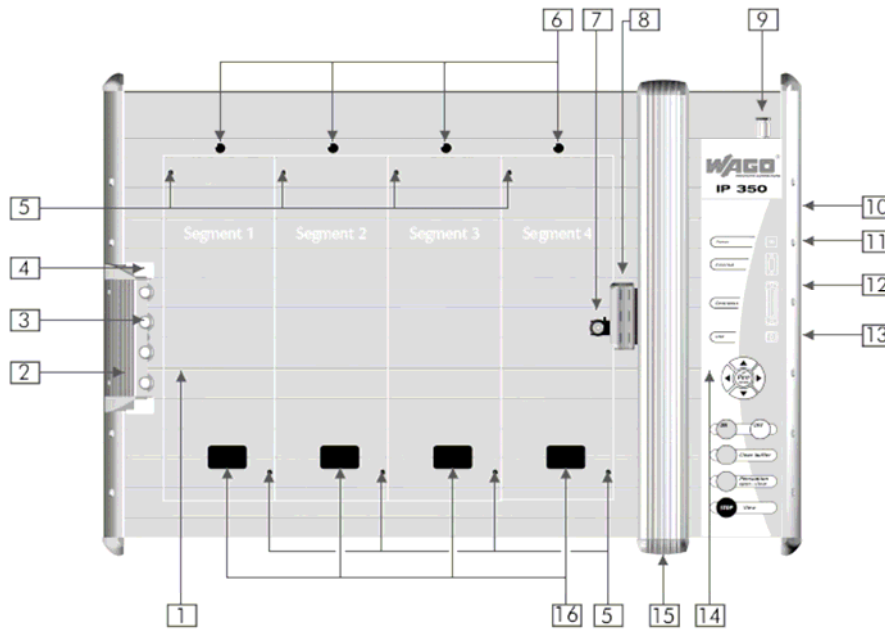
Please verify that you have received all the items supplied with your labelling device (see list below). Please retain the packaging in case you need to return the device.

The following items are supplied as standard:

- 1) WAGO Plotter IP 350
- 2) Power supply with corresponding mains power cable
- 3) Centronics parallel cable
- 4) USB cable
- 5) Operating instructions IP 350
- 6) Software WAGO ProServe
- 7) Manual WAGO smartMARKING



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 holding plates
- 6) Vacuum supply of the individual segments
- 7) Penholder / pen receptacle
- 8) Lowering unit
- 9) Vacuum connection point
- 10) Mains connection
- 11) Gate terminal for external devices
- 12) Centronics printer port
- 13) USB port
- 14) Control panel/control keys
- 15) Writing arm
- 16) Holding plate recognition sensors

4. Setting up the Vario Plotter IP 350

4.1. Location

A dry, dust-free room is the ideal environment for the plotter. 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 IP 350 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.

4.2. 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 IP 350. The USB cable is connected "twistedly".

5. Operation

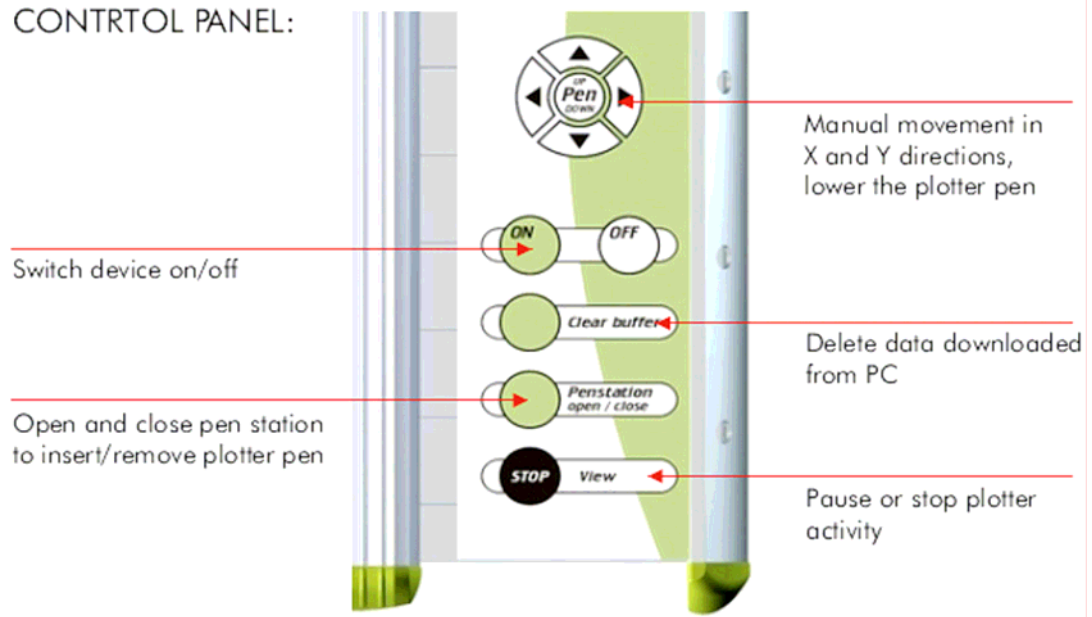
Once you have installed the VP 500 and connected the power supply and data cable you can turn the plotter on.

IMPORTANT:

Before turning 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:



1. 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 indicating light lights up when the system is ready for use and able to receive data from the PC.

2. Clear buffer

If the IP 350 contains data the yellow indicating light will light up. You can delete this data by pressing the 'Clear buffer' key. For this action, the system must be in stop mode (red light on).

3. Open/ close pen station

Before using the IP 350, insert the plotter pens with the desired tip width into the pen station.

IMPORTANT:

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



To insert plotter pens into the pen station, press the 'Pen station 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 optimized seal largely prevents pens from drying out. If the storage holders become soiled over time you can replace them. The product codes for storage holders and the procedure for changing them can be found in the chapter Accessories.

4. Stop/view-key

If the 'stop/view' key is activated while the plotter is in action, the job will immediately pause and the plotter pen will move into the top right-hand corner after the pen has been deposited. 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 lamp will turn off.

ATTENTION:

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

5. 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 the adjustment settings and servicing.

6. Placing the holder plates in the WAGO Plotter

There are eight pin stops on the plotting area where up to four different holder plates can be loaded. Different fixtures are available depending on the size of the marking elements. They may 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 to recalibrate the system.

Different size holding plates:



7. Placing the elements in the holding plates

Choose the appropriate holding plate for the elements to be labelled and carefully insert the elements into the holding plates. To insert the elements, remove the holding plates to ensure a firm fitting of the elements.

6. Cleaning and product care

Protect the IP 350 from dust and other dirt. When not in use, cover the plotter. A special cover is supplied as accessory.

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


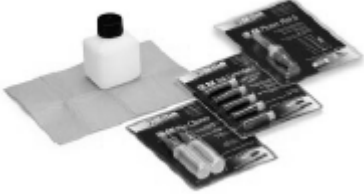

If the pen station storage holders are heavily soiled, please replace them.

IMPORTANT:

**Under no circumstances use harsh cleaning products to clean the Vario plotter!
Never lubricate the mechanical parts of your plotter.**

7. Accessories

To adjust the sealing station
in the pen station:

	<p>WAGO plotter pens 258-226 - nib thickness 0.18 mm 258-227 - nib thickness 0.25 mm 258-228 - nib thickness 0.35 mm 258-229 - nib thickness 0.50 mm</p> <p>WAGO non-returnable pens 258-326 - nib thickness 0.18 mm 258-327 - nib thickness 0.25 mm 258-328 - nib thickness 0.35 mm</p>
	<p>WAGO cleaning set 258-139</p> <p>WAGO pen cleaner 258-140</p> <p>WAGO ink cartridges 258-141</p>
	<p>WAGO service kit 258-147</p> <p>Dust cover 258-146</p>

EXCHANGING 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:



REMOVING A SEALING UNIT FROM THE PEN STATION:

First, 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.

INSERTING AND ADJUSTING A SEALING UNIT:

Insert the new sealing unit into the pen station. Press the sealing unit carefully up to the limit-stop into the aluminum tube. Then adjust the sealing unit using the key, until the key is parallel with the plotter surface. The opening at the side of the sealing unit should now be centered.

EXCHANGING THE PRIMING PLATES (for starting the plotter pen):

The small plates can be removed by pulling them out from the side. Insert new plates by sliding them into the guide at the side of the clamping device until they fit tightly.

8. Troubleshooting

If your WAGO plotter 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.

IP 350 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 nib may be soiled. Clean the nib carefully using a lint-free cloth dipped in special cleaning fluid. Replace the plotter pen if necessary.

9. Technical Information IP 350

Type of plotter:	Flatbed plotter
Maximum plotting area:	442 mm x 296 mm
Plotting speed:	Max. 40 mm/s
Plotter pen:	Special plotter pens with HP holding plate
Ports:	Parallel (Centronics) / USB Level 1.1
Control language:	HPGL
Buffer:	16 MB
Drive:	Two-phase step motor
Pen station:	Max. 4 plotter pens with double seal
Addressable resolution:	0.01 mm
Repeat accuracy:	0.05 mm
Repeat accuracy after pen change:	0.05 mm with optimum pen
Power supply:	Separate power supply with exchangeable mains power connection
Power supply input voltage:	100-240V AC 50-60Hz
Power supply input current:	0.3 A max. at 220 V \sim
Power supply output voltage:	24 V DC
Power supply output current:	1.4 A max.
Environmental conditions:	Operation: 10°C-35°C 35%-75% relative humidity Storage: -10°C-50°C 10%-90% relative humidity
Safety certificate:	Complies with UL-UL1950 CSA-950 / VDE EN 60950
EMC compatibility:	Complies with FCC Class B FCC Part 15 and VDE Class B EN 55022
Dimensions:	660 mm x 440 mm x 125 mm
Weight:	Approx. 8 kg

10. Safety instructions

- Keep the operating instructions in a safe place.
- This device complies with all recognized technical standards and all applicable 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.



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