



Commissioning and Operation

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Transport

DPM

- ▮▮▮▮ Grasp the DPM at the rear hood (1)! Front hood (2) and print module (3) are taboo for grasping!
- ▮▮▮▮ Place the DPM carefully and in operating position (see title image) on a flat surface!

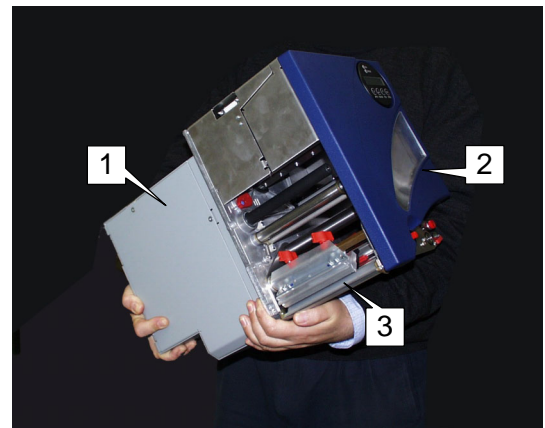
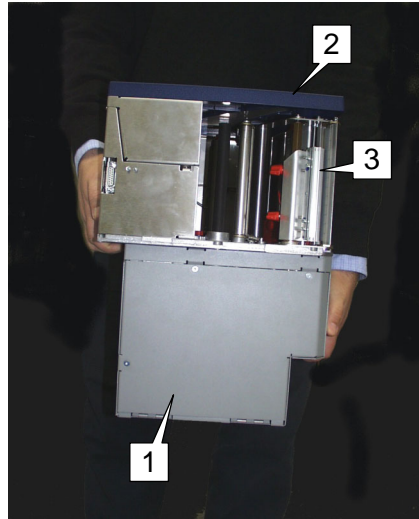


Fig. 1: Two good ways to grasp the DPM – but never use the front hood (2) or the print module (3) as a handle!

ALX 92x

The ALX 92x offers larger surfaces to grasp on, nevertheless obey the same rules as with the DPM:

- ▮▮▮▮ Never grasp at front hood or print module, but at rear hood and basic plate!
- ▮▮▮▮ The ALX 92x weighs nearly 30 kg! – better carry it in twos!
- ▮▮▮▮ Place the machine carefully in operating position (see title image) on a flat surface.

Installing

DPM

The DPM is ought to be mounted on a plate with the following attributes:

- Thickness: max. 20 mm
- Mounting cutout matching the measures indicated on [Fig. 2:](#)
- Fixing with 7 M4 screws

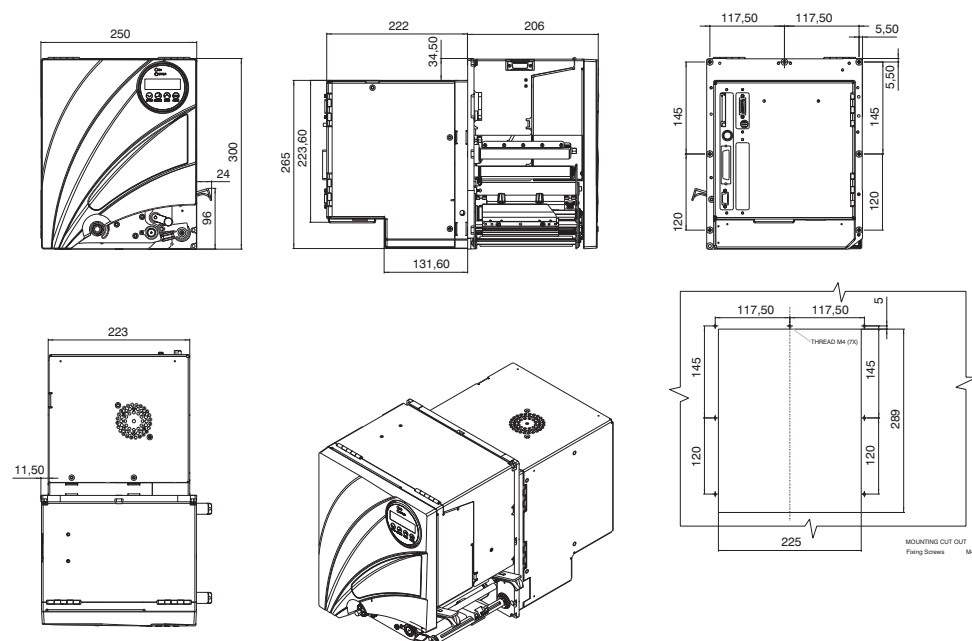


Fig. 2: Measures of the DPM and of the required mounting cutout (right below).

- A dimensioned drawing of the DPM (LH) in DXF format (Autocad) is contained on the documentation CD in directory *Wassblaetter*.

ALX 92x

Tools

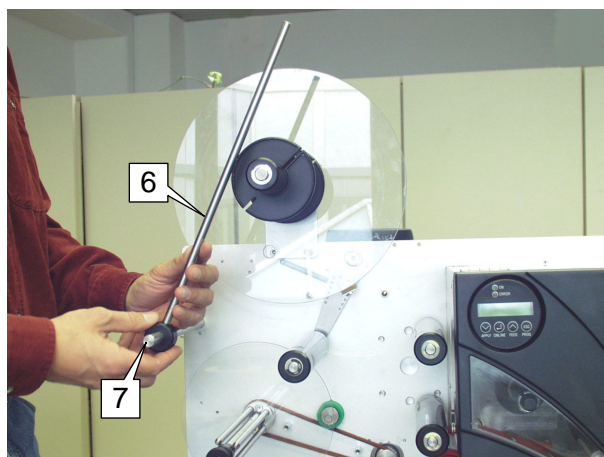
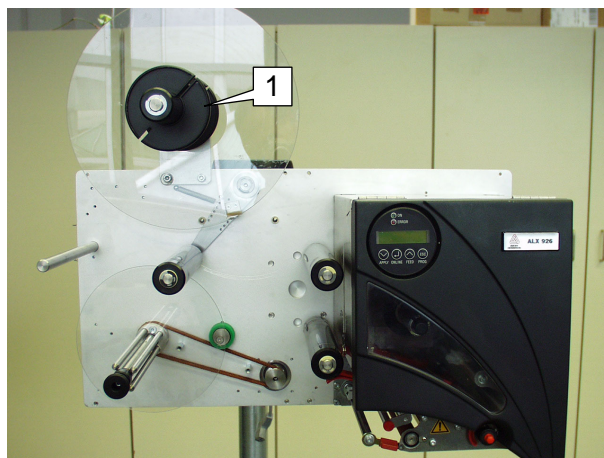
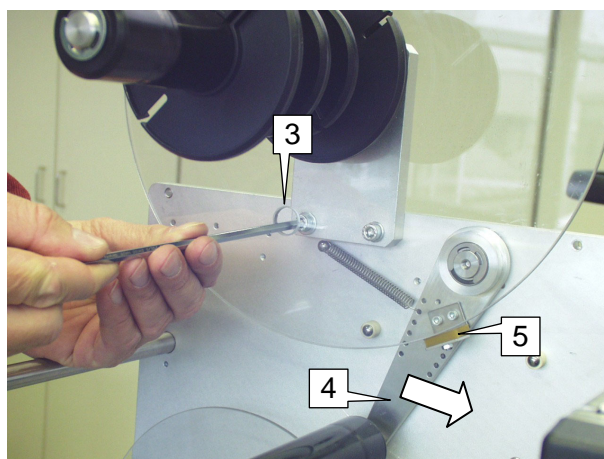
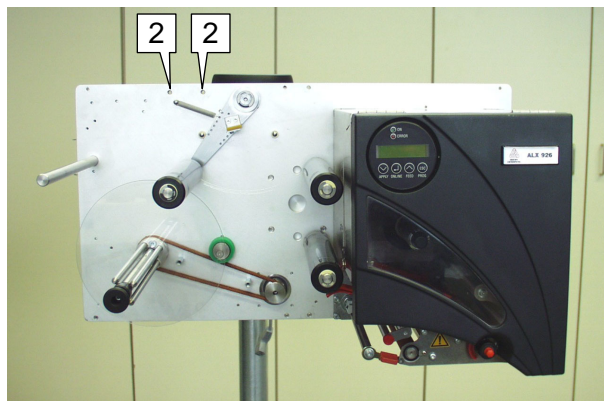
- Allen key 5 mm

Assembling the unwind unit

- Screw the unwind unit (1) to the base plate, using both tapped holes (2) in the top margin of the plate.
- ▶ A hole (3) in the guiding disk gives access to the screws!
- ▶ Swivel the rocking arm (4) slightly to the right, to make the brake (5) press on the rim of the disk.

Assembling the swivel lever

- Shift the swivel lever (6) onto the axle (7) as illustrated. Tighten the thumb screw.



The ALX 92x normally comes with a standard flange. The flange fixes the machine inclinable and turnable to a tube end with an outer diameter of 60 mm, which matches the support stands of the Avery Dennison system.

- Refer to the appendix, section [Support Stands](#).
- Dimensioned drawings of the ALX 92x in DXF format (Autocad) are contained on the documentation CD in directory *Massblaetter*.

Adjustment unit

Optionally, an adjustment unit can be ordered instead of the standard flange. The unit allows easier positioning of the machine. Changing the side of the conveyor belt to reach the setting elements is not necessary with this option. The adjustment can be done from the "operator-side" of the ALX 92x.

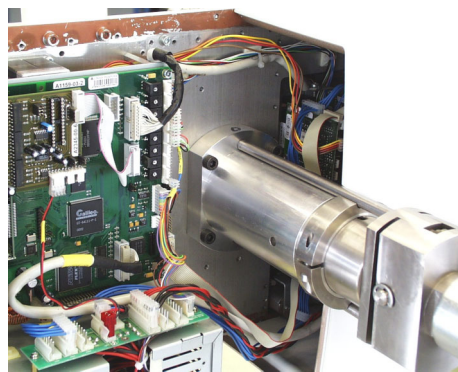


Fig. 3: ALX 92x, mounted by means of the optional adjustment unit.

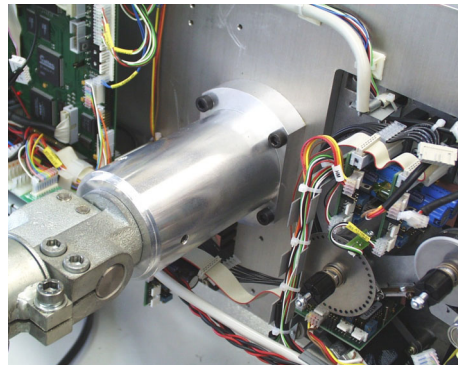
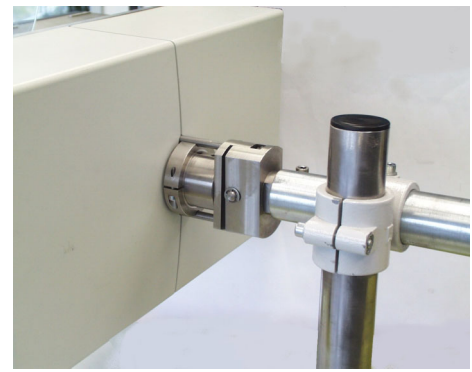


Fig. 4: ALX 92x, mounted by means of the standard flange.

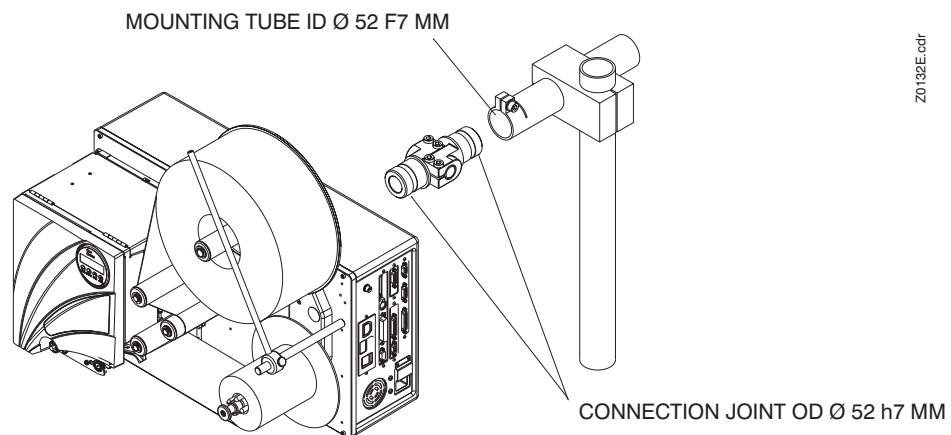


Fig. 5: Mounting of the ALX 92x by means of the standard flange to a support stand..

Operating panel

The control panel of the DPM is rotatable by 180 degrees. In this way, the customer can adapt to a large extent the position of the control panel to the built-in position of the DPM.

Layout of the operating elements



Z0059.dxf

Operating elements

- (1) Remote on/off switch
- (2) Power-on-LED
- (3) Error-LED
- (4) Display
- (5) APPLY-button
- (6) ONLINE-button
- (7) FEED-button
- (8) PROG-button

Display

The display shows the operating modes, parameters, values, status and malfunctions using 32 characters in two lines. The operator can alternate the display according to his preferred language and switch between the English and German display texts. The background illumination allows for easy reading of the display.

Meanings of the buttons

General

The buttons permit a multitude of functions. The device is operated using a logical menu structure. The buttons have different meanings depending on the operating mode and menu item. In addition, special functions are programmed by pressing several buttons simultaneously.

Despite this variety, the following main functions can be assigned:

ONLINE button

Changes between on-line and off-line mode.

↵ = Enter: Confirms values, menu items or displays.

APPLY button

Application of a label – press this button to start the applicator.

Also leads to deeper levels of the menu structure or selects menu items.

Values are reduced.

FEED button

Feed = Material feed, in on-line mode start after stop.

Also leads to deeper levels of the menu structure or selects menu items.

Values are increased.

Remote on/off switch Switches the DPM/ALX 92x on/off. To enable this switch, the main switch must be switched on (Position "I")!



CAUTION! This switch *does not* separate the device from the mains supply! In emergency cases switch the mains switch off or pull the mains connector!

PROG button

For calling up the parameter menu

- Other and more detailed function assignments can be found
 - in the following sections (Operation in off-line and on-line mode) and
 - in the section "Info print-outs and parameters" (Operation of the parameter menu).

Connecting



- Switch the machine off, before you plug in or remove the interface cable.
- Only connect devices to the interfaces or the sockets which have been approved according to IEC 950 or VDE 0805, and which fulfil these requirements in line with SELV.

Device connections DPM

Mains switch and mains connection are placed on the bottom side (1) of the DPM. The connection for Avery applicators (2) is positioned in front - on the dispenser side. You find all further connections on the rear side of the housing (3).

The DPM is equipped with the following connections:

- (4) Mains connection
 - (5) Mains switch
 - (6) Plug-in card slot
 - (7) Not allocated
 - (8) Parallel interface (Centronics)
 - (9) Serial interface RS232/RS485
 - (10) USI interface
- Pin assignments: Refer to topic section "Interfaces" in the service manual.

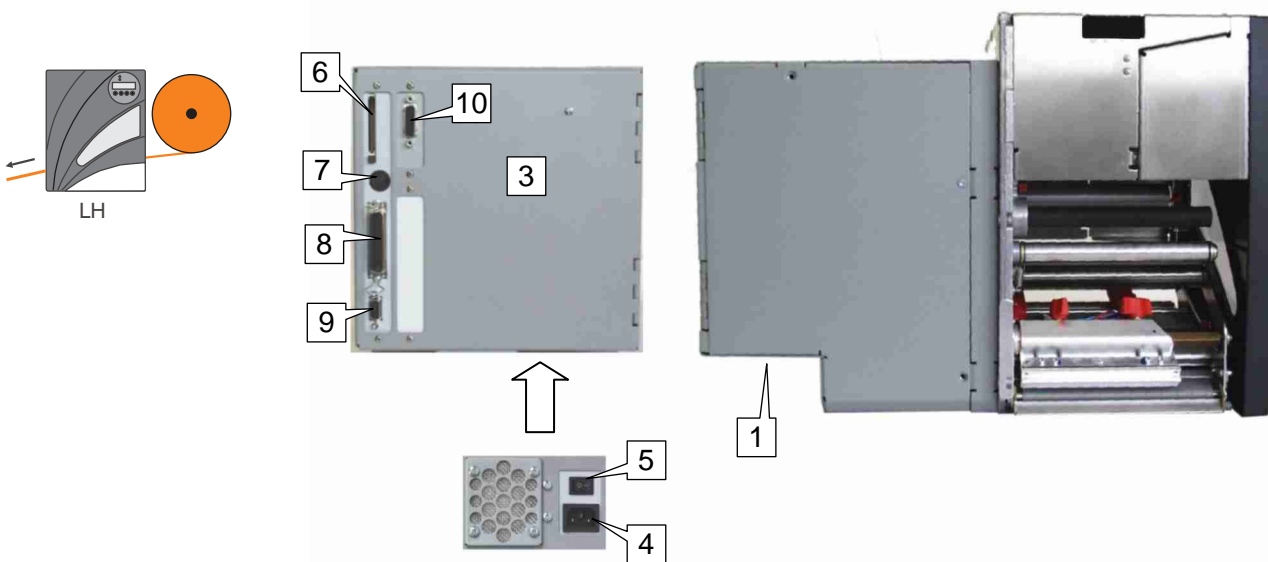


Fig. 6: Connections at the DPM LH version.

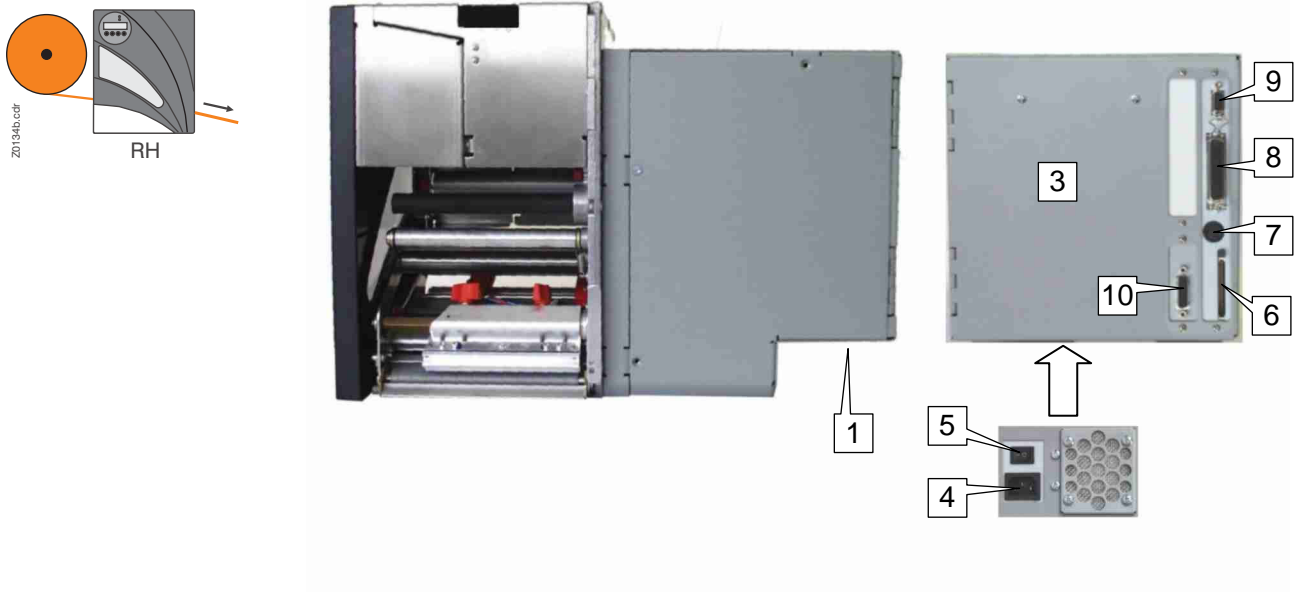


Fig. 7: Connections at the DPM RH version.

Mains connection DPM

- Plug the mains cable into the socket (4), switch off the mains switch (5), connect the mains plug to the power supply.

Device connections ALX 92x

The connections are placed on the side panel of the machine.

The ALX 92x is equipped with the following connections:

- (2) Connection for Avery applicators
 - For an illustration, refer to [Device connections DPM](#).
- (4) Mains connection
- (5) Mains switch
- (6) Plug-in card slot
- (7) Not allocated
- (8) Parallel interface (Centronics)
- (9) Serial interface RS232/RS485
- (10) USI interface
 - Pin assignments: Refer to topic section "Interfaces" in the service manual.

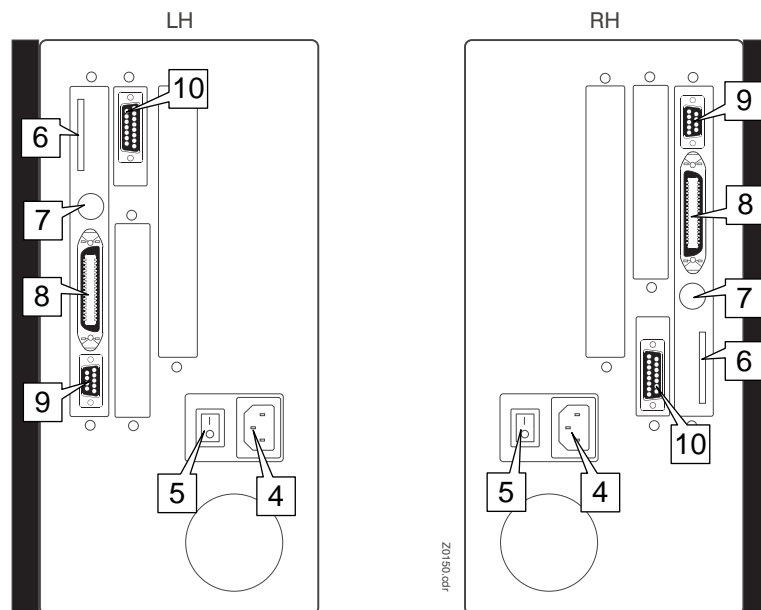


Fig. 8: Connections at the ALX 92x RH and LH versions.

Mains connection ALX 92x

- Plug the mains cable into the socket (4), switch off the mains switch (5), connect the mains plug to the power supply.

Connecting the data cable

If no plug-in-card is used, the print data can be transmitted to the DPM either via a serial or a parallel data line. For this purpose, the DPM shows a serial interface (V.24/DB25) as well as a parallel interface (Centronics). By means of the parameter menu of the DPM, the mode of transfer and/or the corresponding interface is selected and adjusted.

Default setting

Parallel transmission (Centronics-interface)

- Plug the data line in the serial or parallel connection, depending on the intended mode of transfer.

Centronics

Parallel transmission requires no additional settings.

RS485

Use the parameter menu to set the serial interface to RS232 or RS485 mode. Default setting of the DEM is RS232.

Interface selection

Select the interface as follows:

Action	Display	Note
1. Switch on the DPM	OFFLINE 0 JOBS	Only if parameter SYSTEM PARAMETERS/ Turn-on mode is set offline
2. Press the PROG button	PRINT INFO	
3. Press the APPLY button repeatedly, until	INTERF. PARAM.	
4. Press the ONLINE button	Interface	
5. Press the ONLINE-button	RS232	
6. Press the APPLY-button repeatedly, until the desired interface shows up on the display. Confirm by pressing the ONLINE-button.		
7. Press the PROG-button repeatedly, until	OFFLINE 0 JOBS	

○ Continue next page

Transmission-parameters

Selecting the serial interface makes some additional items appear in the parameter menu. „Baud rate“, „No. of data bits“ and „Parity“ follow now after „Interface“ and are meant to set up the conditions of transmission. Set up the baud rate as follows:

Action	Display	Note
1. Steps 1 to 4, as described in the section „Interface selection“.	Interface	
2. Press the APPLY-button	Baud rate	
3. Press the ONLINE-button	xxxxxx Baud	(xxxxxx = set value)
4. Press the APPLY- or FEED-button to change the value, confirm by pressing the ONLINE-button.		
5. Press the PROG-button repeatedly, until	OFFLINE 0 JOBS	Only if parameter SYSTEM PARAMETERS/ Turn-on mode is set offline

- ➡ Proceed in the same way to set the parameters "No. of data bits" and "Parity" , with the only difference in step 2 of pressing the APPLY-button several times until the corresponding parameter shows up..
- Refer to the section „Info-printouts and parameters“ for detailed information on parameter settings.

Operating modes

Off-line mode

Display: **OFFLINE X JOBS** X = No. of already interpreted print jobs

Parameter settings, status reports and printer settings are carried out in off-line mode. The off-line mode is usually active when the printer is switched on (adjustable). The printer is not ready to receive data via the selected interface (off-line). Print jobs are not carried out.

On-line mode

Display: **ONLINE X JOBS**

The printer is ready for operation in the on-line mode. Data can be received via the selected interface (on-line). Print jobs are carried out. If errors occur, the printer goes automatically into off-line mode.

Data transmission Currently proceeding data transmission to the printer is indicated by a point to the right of the number of jobs:

Display: **ONLINE X. JOBS**

Printing While the printer is processing a print job, the display shows additionally the remaining quantity of labels to be printed in the active print job:

Display: **ONLINE 13 JOBS**
Restcount: 25

Remaining amount If a print job requires an endless amount of labels, the remaining label amount is also endless. In that case, the display shows the following:

Display: **ONLINE 13 JOBS**
Restcount: endless

Stop printing → Press the online button in order to stop the print job.

○ Continued next page

Report status

Display: Status xxxx
TextTextTextText

Status report

A malfunction or certain conditions are signalised by the DPM with a status report. In this report status, the printer waits for the error to be corrected and/or an acknowledgement. After acknowledgement, the printer goes from the report status into off-line mode (depending on the error and how the previous process has been completed).

Acknowledging

→ Acknowledge with the online button and switch off the acoustic signal with the feed button to exit the report status (change to off-line).

Basic operating procedures

Starting the DPM

- Connection** 1. Connect the DPM to the mains power supply (if not already done so) and plug in the interface cable (if required).
- Switching on** 2. Switch on the DPM using the mains switch.

Display:	System start...	Boot-Loader startet
	System start... Start user prog	Found valid firmware-program; program is started
	Avery DPM-04 R1.10 H1.20	Printer type (here: DPM-04) Release no. of the DPM firmware
	Memory: 8MB Flashcard 8MB	Internal RAM (here: 8MB) Optional RAM on Compact Flash Card (here: 8MB) – Display only when Compact Flash Card applied.

Off-line OFFLINE 0 JOBS Off-line-Mode

3. Change to on-line mode using the Online button.

Display: ONLINE 0 JOBS

On-line The DPM is now ready to receive data via the selected interface.

Reset

Display: Arbitrary (not off!)

Reset → Press the Feed+Apply+On-line buttons (all 3 buttons simultaneously) in order to reset the DPM. The DPM is restarted (restart or also warm-up).

Display: Apart from the first line, which is not displayed (System start...), same display as after switching on.

The DPM can therefore be restarted without having to switch the device off first.

➡ During reset, all the data stored in the DPM is deleted!

Starting a print job

Print job

All information about the format and the number of the labels to be printed is contained in a file, the so-called print job.

Information in a print job e.g. is:

- Type and dimensions of the label material
- Punch offset
- Font in which the text should be printed
- Bar code type
- Logos
- Rectangles, lines, circles
- Kind, size, sense of rotation, position for the above-mentioned elements
- No. of labels to be printed

Easy Plug

For formulation of a print job, a specific command language is available with Easy Plug. Easy Plug commands can be formulated with every customary text editor. Accordingly, the print job file is an ASCII text file.

- Refer to the Manual Easy Plug for a detailed description of all Easy Plug commands.

Sending a print job

The DPM can only work off the print job if the job is filed in the DPM memory. It can get there on two different ways: transferred on direct way from the PC using a data cord or copied on a plug-in card.

Cable

a) Data cable

Transmission of the print job can be performed either in a serial or parallel manner. For this purpose, connect PC and DPM via the serial or parallel interfaces using the appropriate cable type and send the print job file - using the DOS window - to the interface (e.g. `copy testjob.txt lpt1` using the parallel interface).

- In order to send the print job from a text program, the driver for the corresponding printer must first be installed.
- Specific label layout programs - e.g. Jetmark - simplify handling. A driver must be fit too for them.

Card

b) Plug-in card

This procedure requires a Compact Flash Card to which the print job is copied. Copying requires a PCMCIA drive and an adapter for Compact Flash Cards. In addition, the print job file must be renamed in `autostrt.for`, otherwise the DPM will not find it. If everything is arranged so far and the Card is plugged in, the DPM works off the print job as soon as it is switched on-line.

- To find an example of a print job including processing instructions, for practising and trying out, refer to the manual Easy Plug, subject section „Definitions and Overview“, paragraph „Programme example“.

Operation in off-line mode

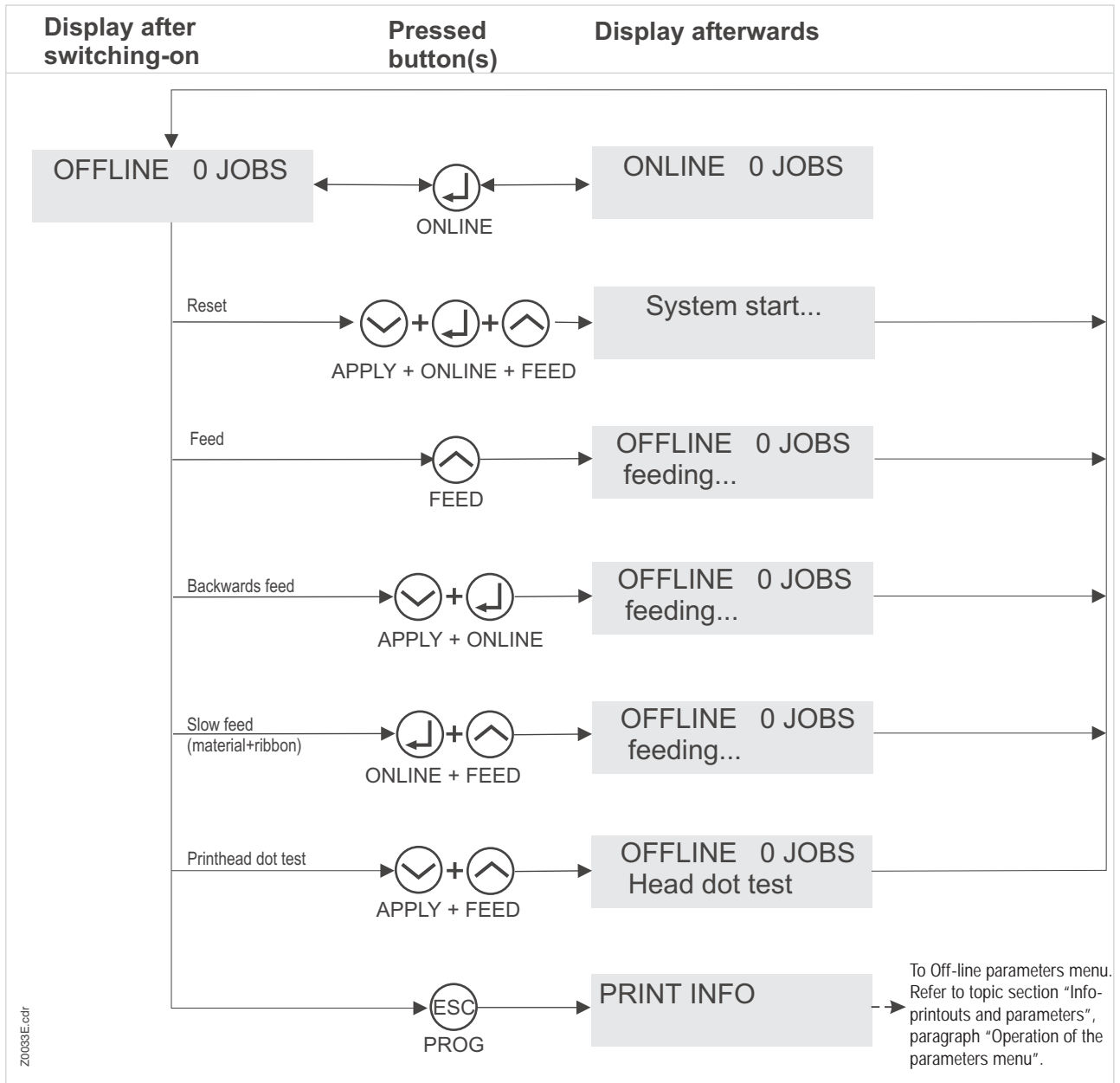


Abb. 1: Fig.: Possible operations starting with the off-line mode.

Previous display	Pressed button(s)	Display afterwards	Function/meaning
OFFLINE x JOBS		ONLINE x JOBS	On-line mode, the DPM is ready to receive data
OFFLINE Stopped x JOBS xxx	Online	ONLINE Stopped x JOBS xxx	Halted print job, change to on-line mode

OFFLINE x JOBS	Online+Feed+Apply	OFFLINE 0 JOBS	Reset
OFFLINE x JOBS	Online+Feed	OFFLINE 0 JOBS feeding...	Slow feed of material and ribbon
OFFLINE x JOBS	Online+Apply	OFFLINE 0 JOBS feeding...	Material feed backwards
OFFLINE x JOBS	Prog	PRINT INFO	Selection parameter menu
OFFLINE x JOBS	Feed	OFFLINE x JOBS feeding...	Material feed
OFFLINE x JOBS	Feed+Apply	OFFLINE x JOBS Head dot test	Checking the print head for defective dots

Tab.: Button combinations and afterwards following displays in off-line mode.

Operation in on-line mode

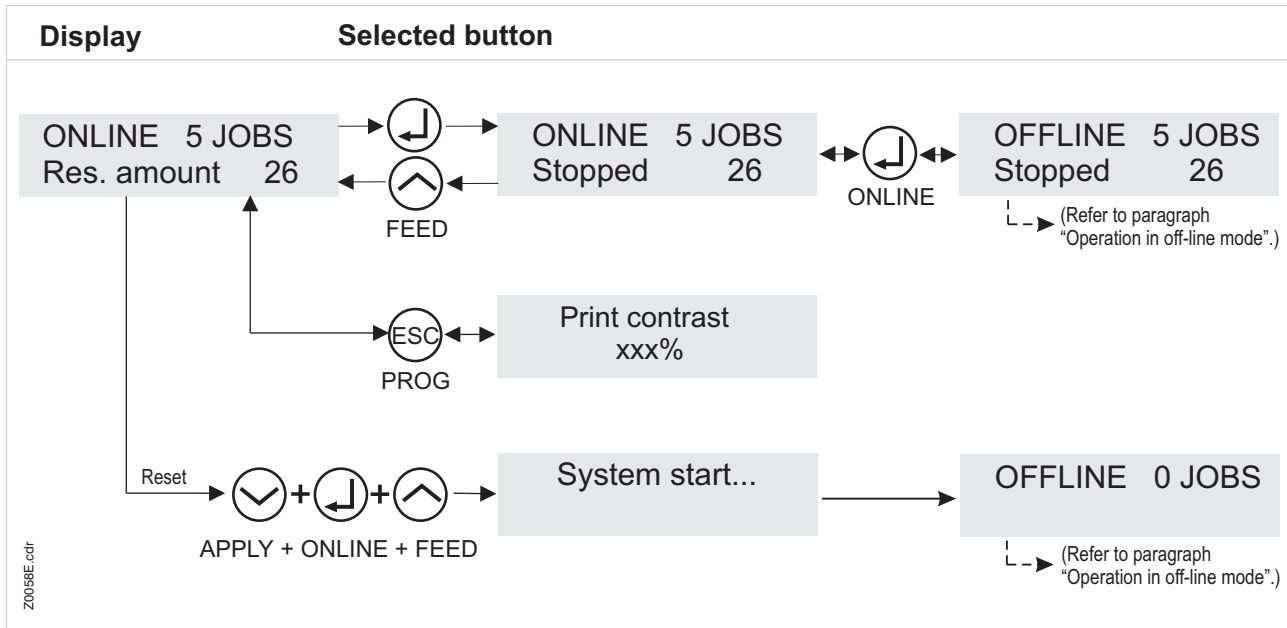


Fig.: Possible operations starting from the on-line mode (Example: there are 5 print jobs loaded, a rest of 26 labels still has to be printed to finish the current print job).

Previous display	Pressed button(s)	Display afterwards	Function/meaning
ONLINE 0 JOBS	Prog	Print contrast xxx%	Set print contrast: Feed button to increase, Cut button to decrease.
ONLINE 0 JOBS	Online	OFFLINE 0 JOBS	Off-line mode, number of loaded jobs is shown.
ONLINE x JOBS Res. amount xxx	Online	ONLINE 0 JOBS Stopped xxx	Interrupt print job: The label being printed is completed; the number of loaded jobs and the number of labels to be printed is shown.
ONLINE x JOBS Stopped xxx	Online	OFFLINE x JOBS Stopped xxx	Change to off-line mode; the number of labels waiting to be printed remains.
ONLINE x JOBS Stopped xxx	Feed	ONLINE x JOBS Res. amount xxx	Resumption of the print job

Tab.: Button combinations and afterwards following displays in on-line mode.

Status reports

General display format

Status	xxxx	<i>xxxx = status number</i>
Text	TextTextTextText	<i>TextTextTextText = status description.</i>

Status	1170	<i>Beispiel</i>
x pos > width		

- For a detailed list of status messages, refer to topic section „Status reports“.

Status type	Button combinations	Status after acknowledgement	Function/meaning
Self-acknowledging status report	none	As prior to the status report	Status report as a warning, self-acknowledging. The message appears for approx. 2 seconds on the display. The DPM then continues with its previous job.
Status report must be acknowledged by the operator.	ONLINE button	Off or on-line mode, depending on the status which has occurred.	Status report is displayed together with a short signal tone. Confirm that the error has been corrected (acknowledgement).
	APPLY button		To exit the report status. Depending on the type, the status report is either followed by a change into off-line mode, or the previous action is continued.
Nontransient error	APPLY+ONLINE+FEED-buttons	Off-line mode	DPM lock. The status report is displayed together with a continuous signal tone. In order to resume operation it is necessary to restart the DPM.

Tab. 1: The three types of status messages require an adapted reaction of the user.

- For informations on how to acknowledge a certain status message, refer to topic section "Status messages".

Special status messages

FOIL

The following status message deviates from the standard display format:

```
FOIL      X JOBS  
Job rest quant. xxx
```

This message appears, if the set "Foil end warning" threshold is reached, what means that the ribbon roll diameter has fallen below the set threshold value. The message doesn't affect the printer function.

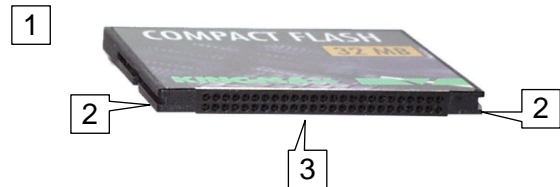
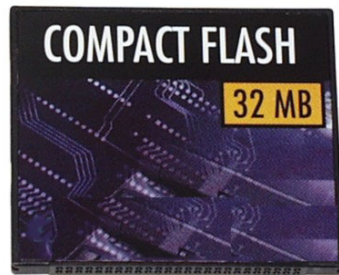
- See parameter *SYSTEM PARAMETERS > Foil end warning*.

The message disappears shortly after a new ribbon roll has been inserted. It can be avoided by setting a very low threshold diameter.

Handling of plug-in cards

Compatible plug-in cards

The slide-in modules are intended for the use of optional cards. Compact Flash Cards (1) with 32 or 48 MB per card can be used.



Example: 32MB Compact Flash Card
Appearance may differ from the card shown



➡ Only Compact Flash Cards which have been approved by the manufacturer may be used. Do not insert, remove or change a card until at least 60 seconds after switching off the device!

○ For more detailed information about the use of cards see Manual Cards.

Compact Flash Cards have guide grooves on the shorter sides (2). One of the two guide grooves is wider than the other. The plug contacts are located on one of the two longer sides (3).

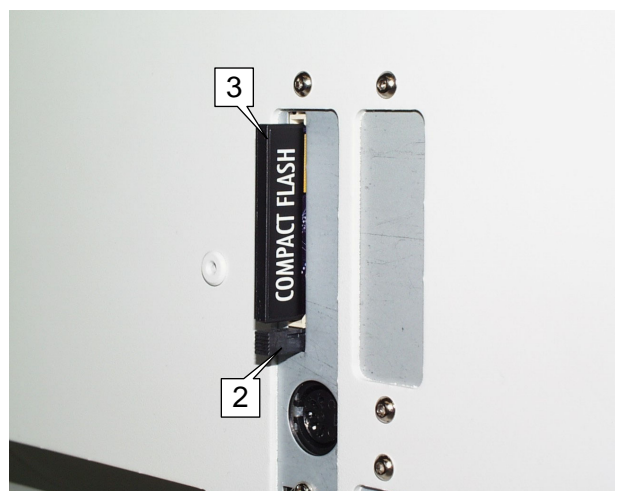
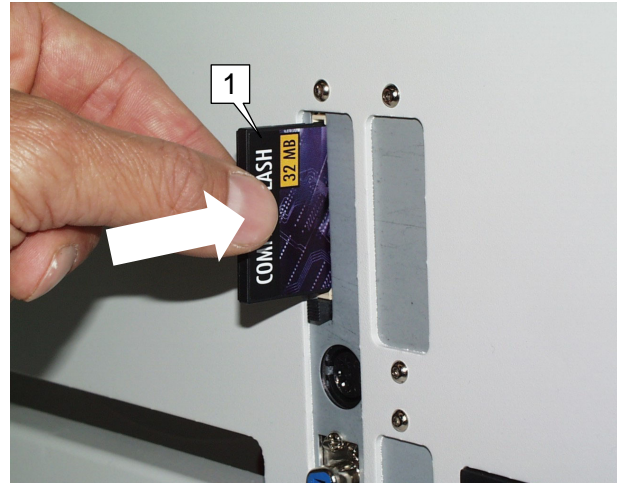
Inserting the plug-in cards

- The plug-in card slot is situated at the rear of the device. See section "Layout of the device connections".

1. Switch off the mains switch.
2. With the plug contacts at the front, push the Compact Flash Card (1) into the plug-in card slot until you can feel some resistance. The wider guide groove must be pointing upwards.

Card firmly right further into the slot until the release button (2) comes out. The plug-in card then protrudes approximately 1 cm out of the device (3) and ends justified with the release button.

- III ➔ Do not use force to insert the plug-in card.
- III ➔ Check the position of the plug-in card if it cannot be inserted without using force.



Removing the plug-in card

- ➔ Press the release button at the lower end of the plug-in card slot. At the same time remove the plug-in card with your free hand (4).



Assembling Accessories

Application roller

The application roller is designed for direct application, what means that the ALX 92x is mounted so, that the dispensing edge is positioned in a short distance above the product (see [Fig. 9:](#)), The application roller presses the dispensed labels onto the passing goods.

Assembly according to [Fig. 10:](#)



Fig. 9: The application roller presses the label onto the product directly after dispensing it.

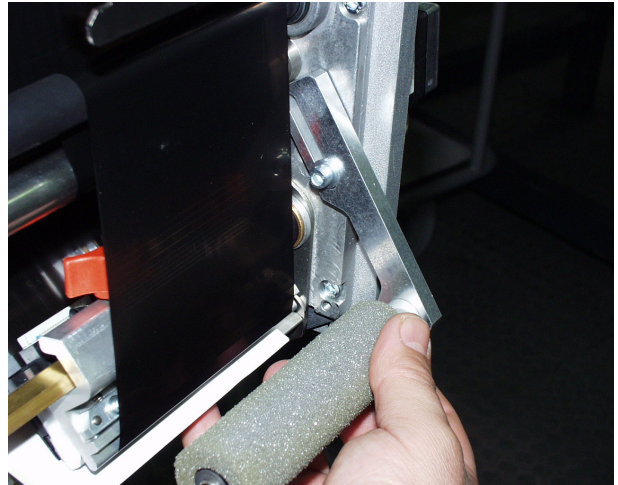
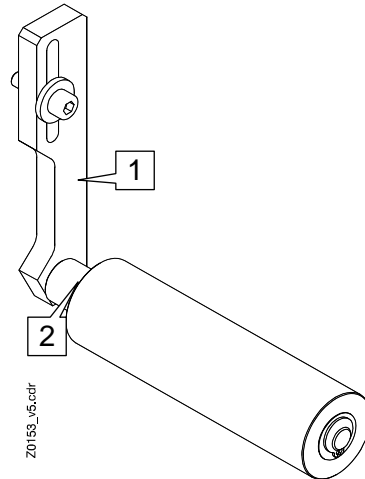
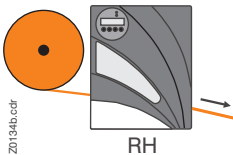
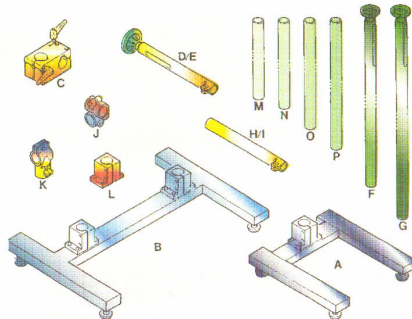


Fig. 10: Both application rollers, for RH as well as LH version, have the same partnumber – but they differ in the way, the axle (2) is screwed to the aluminium plate (1).

Appendix

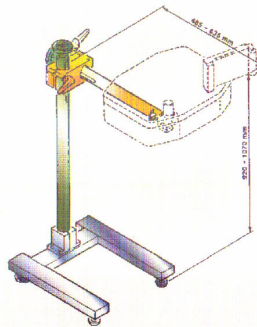
Support Stands



Complete Set of Standard Modules

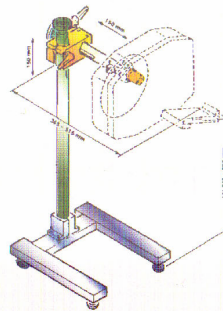
- | | |
|----------------------------------|----------------------------------|
| A ■ Single H-Foot | J ■ Cross Clamping Piece |
| B ■ Double H-Foot | K ■ T-Clamping Piece |
| C ■ Cross Clamp for Lead-Screws | L ■ Square Flange Foot w/o Posts |
| D ■ Horizontal Lead-Screw 320 mm | M ■ Post 480 mm |
| E ■ Horizontal Lead-Screw 520 mm | N ■ Post 650 mm |
| F ■ Vertical Lead-Screw 1010 mm | O ■ Post 900 mm |
| G ■ Vertical Lead-Screw 1500 mm | P ■ Post 1500 mm |
| H ■ Post with clamp 320 mm | |
| I ■ Post with clamp 520 mm | |

Complete Set for Side Labelling



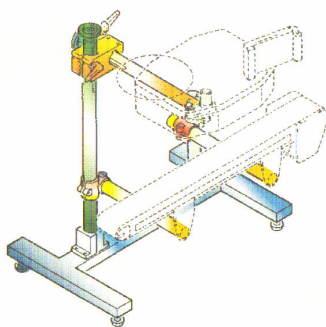
- | |
|----------------------------------|
| A ■ Single H-Foot |
| C ■ Cross Clamp for Lead-Screws |
| E ■ Horizontal Lead-Screw 520 mm |
| F ■ Vertical Lead-Screw 1010 mm |

Complete Set for Top Labelling



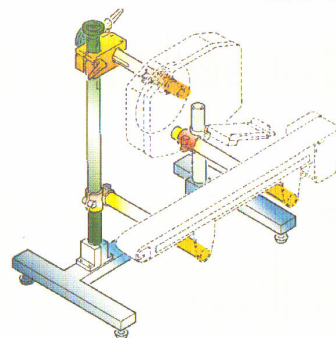
- | |
|----------------------------------|
| A ■ Single H-Foot |
| C ■ Cross Clamp for Lead-Screws |
| D ■ Horizontal Lead-Screw 320 mm |
| E ■ Horizontal Lead-Screw 520 mm |
| F ■ Vertical Lead-Screw 1010 mm |

Example for Side Labelling and Conveyor



- | |
|----------------------------------|
| B ■ Double H-Foot |
| C ■ Cross Clamp for Lead-Screws |
| E ■ Horizontal Lead-Screw 520 mm |
| F ■ Vertical Lead-Screw 1010 mm |
| N ■ Post 650 mm |
| O ■ Post 900 mm (2x) |

Example for Top Labelling and Conveyor



- | |
|----------------------------------|
| B ■ Double H-Foot |
| D ■ Horizontal Lead-Screw 320 mm |
| E ■ Horizontal Lead-Screw 520 mm |
| G ■ Vertical Lead-Screw 1500 mm |
| N ■ Post 650 mm (3x) |

Fig. 11: Mounting examples using the Avery Dennison support stand system. Ask our selling agent!

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