

FTD-1 Tape applicator

Instructions manual

Version: 30.Mar.2018

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Brief description

With the Paperfox FTD-1 Programmable tape applicator you can apply max. 12mm wide double sided adhesive band on paper, cardboard or similar sheet materials. The device uses two Paperfox TD-1 Tape applicator heads from which you can get know more from its instructions manual.

Paramerers

Dimensions without stand:	L=110cm W=100cm H=75cm
Dimensions with stand:	L=110cm W=100cm H=150cm
Weight with stand:	75 kg
Voltage:	230V 50Hz
Power consumption:	180W
Pneumatic pressure:	8 Bar
Max. sheet width:	700mm
Max. tape width:	20mm
Sheet forwarding method:	Conveyor belt (700x700mm)
Speed:	20 m/min

Safety instructions

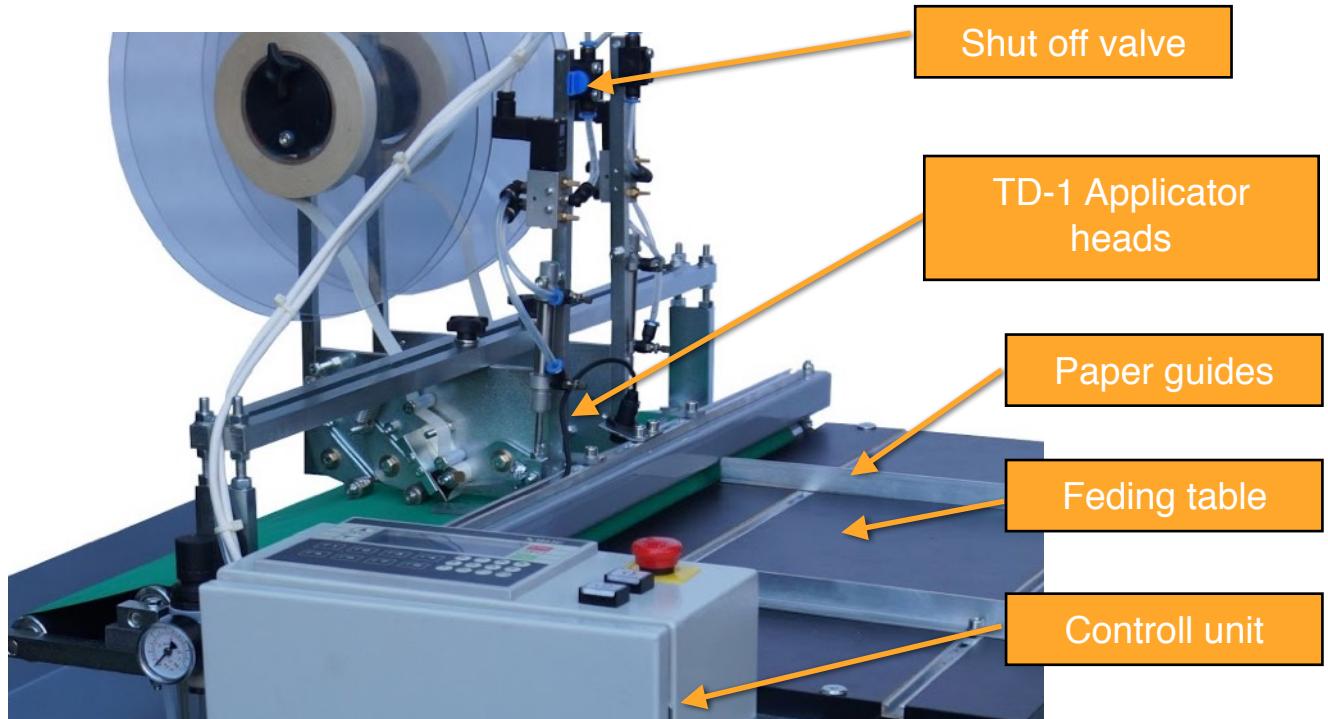
Please read the operating instructions before you use the Paperfox FTD-1 Tape applicator to prevent accidents and ensure the trouble-free operation.

- The Paperfox FTD-1 Tape applicator may not be operated by anyone who does not read or does not fully understand the operating manual.

- The device may not be used in wet or explosive environment.
- Always use a proper lighting.
- To ensure the easy unplugging use a socket in a height 0,6 and 1,9m.
- Use a proper socket with a safety ground
- Never change the fuse to any other type as the designated value.
- Repairs should be carried out by qualified persons using original parts.

Parts of the Paperfox FTD-1 Tape applicator

The configuration is subject to change. This parts are supplied in standard configuration.

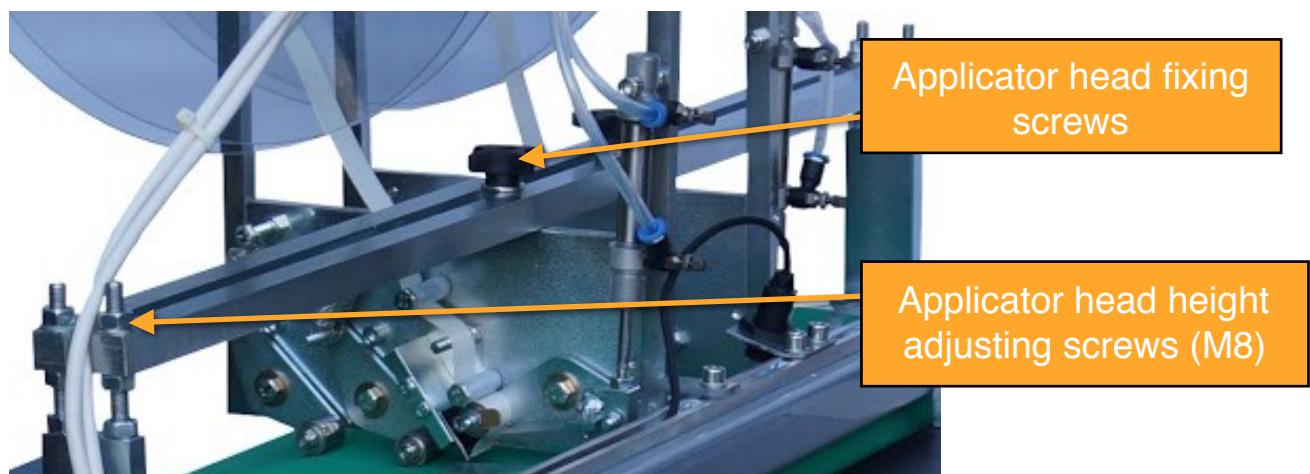


You can place the sheets on the feeding table and set the paper guides to the proper position. With the shut off valve you can switch off the tape application. This valve should be switched off if you guide the adhesive tape into the TD-1 head. If the safety stop button pressed down you can't operate the device. It can be set into normal operating position by turning the head of the pushbutton a bit clockwise.

With the main switch you can switch on/off the device. The sheet forwarding motor can be switched on/off with the motor on/off switch.

The operating parameters of the device can be set with the programmable controller.

Setting the position of the tape applicator heads



The longitudinal position of the tape application can be set through program but the side position should be set manually.

Loose the applicator head fixing screws and slide the head to a desired position.

Fix the screws.

You can regulate the height of the tape applicator heads with the M8 adjusting screws.

The programmable controller (PLC)

You can set the position of the tape application and other parameters with the PLC. There are several screens with different function on the display. You can change the active screens with the “up” and “down” arrow buttons on the left side the PLC. The operating instructions and the datas can be set on the function and numeric buttons. After pressing the “SET” button you can write a numeric value into the highlighted data field on the display and you can confirm this data and go to the next data field by pressing the “ENT” button. If you don’t want to go through all data field you can exit from the setting mode by pressing down the “ESC” button.

Main screen



After switching on the device the main screen appears on the display.

The displayed value after the label “Length:” is the length of the sheet which passed through the device.

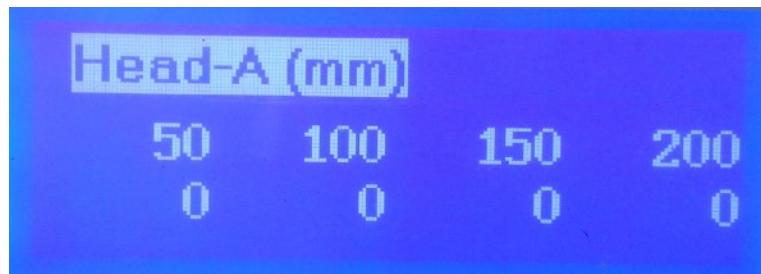
The displayed value after the label “Counter:” is the number of sheets passed through the device since it was reset. You can reset this counter with the “F1” function key.

You can switch on/off the sheet forwarding motor not only with the motor on/off switch but also with the “F2” function key when the main screen is on the display.

With the “F8” function key you can simulate the signal of the optosensor for diagnostic purpose.

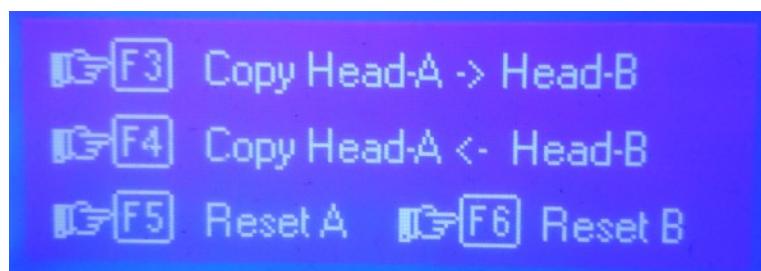
The lamps at the right side of the display are for diagnostic purposes. (Optosensor, Override time, Head-A and Head-B)

Head-A, Head-B screens



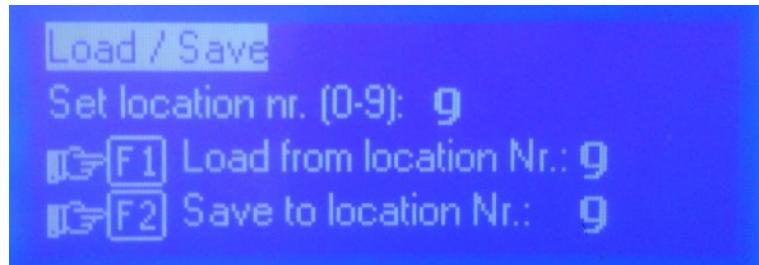
There are 8 numeric field on this display. The values are proportional to the positions on the sheet on which the tape applied or ended. (Actually they are delay times from the sign of the optosensor. At this example at position 88 the tape application starts, at 800 ends. Do not write "0" as a starting position because this value means that this position is inactive. To start at the beginning of the sheet write "1" to the first start position. The Head-B screen is very similar.

Copy/Reset screen



You can copy the setting of the head-1 to head-2 by pressing the "F3" and the head-2 to head-1 by "F4". You can reset all values to "0" with the buttons "F5" or "F6".

Load/Save screen

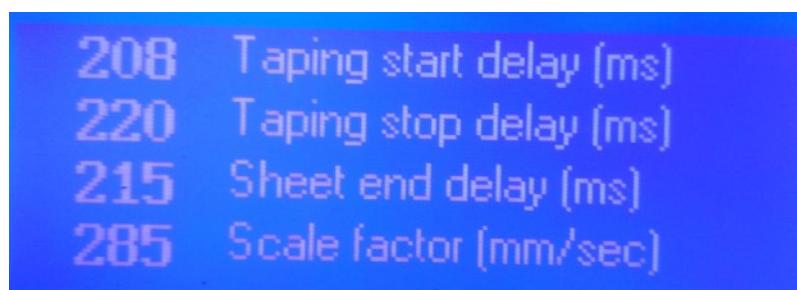


You can save the actual settings or load the saved settings. Press the "SET" key and set the Nr. of store location (0-9).

Press the "F1" key to load the saved settings or "F2" to save the actual setting to the selected store location.

Parameter Screen

In this screen you can set the operational parameters.



"Taping start delay" - with this delay you can compensate the distance of the optosensor and the tape applicator head. This value used to calculate the starting positions of tape laying.

"Taping stop delay" - similar to "Taping start delay" but a bit different because of mechanical differences. This value used to calculate the stop positions of tape laying.

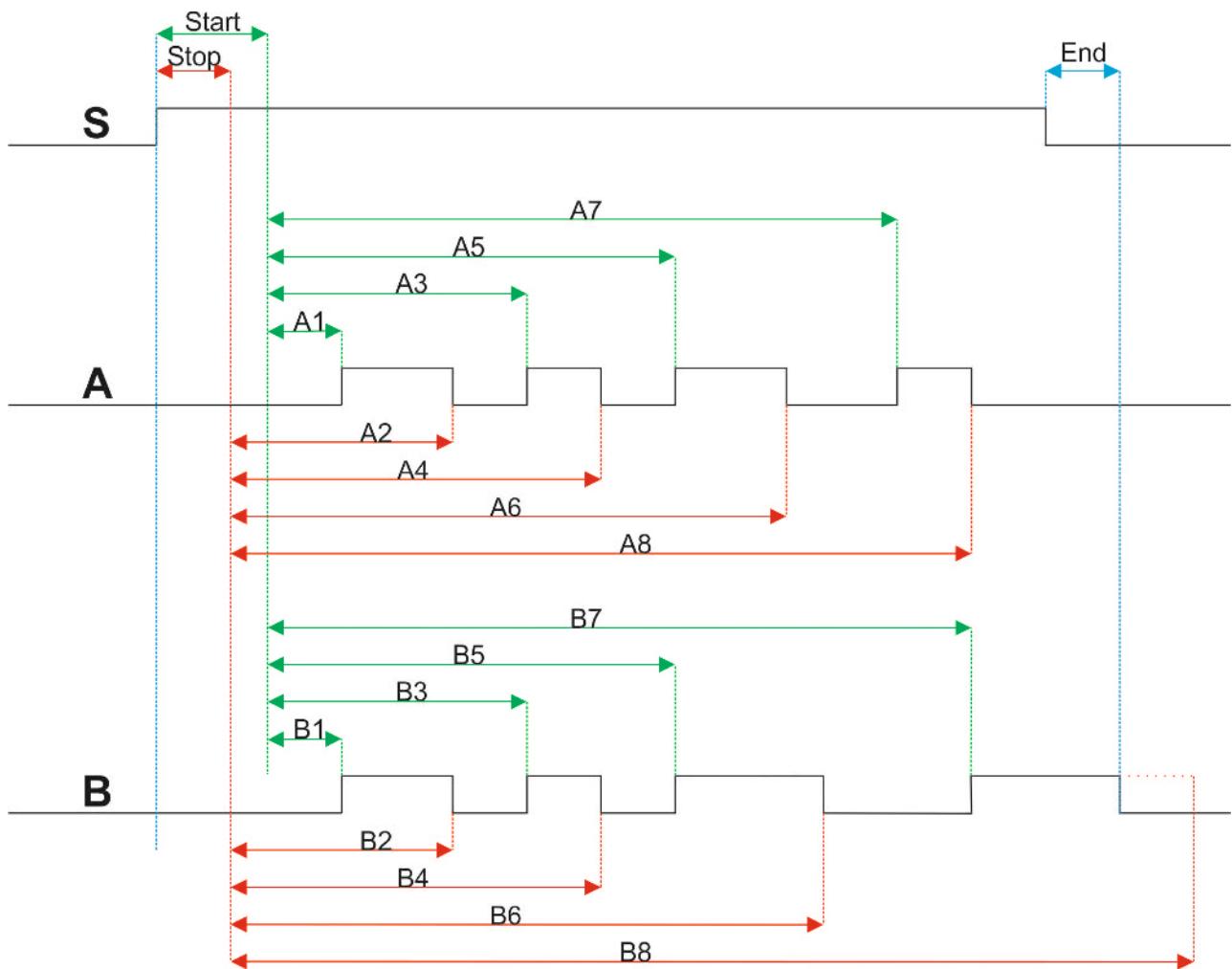
"Sheet end delay" - similar to "Taping start delay" but a bit different because of mechanical differences. This value used to calculate the time when the end of the sheet arrives to the applicator head. At this point the head stops the tape laying even if the programmed length is not achieved.

If the processed paper have a punched hole or if the printed paper can confuse the optosensor the tape application can be terminated because the device thinks that the paper has ran out from the device. In this case you can increase the "Sheet end delay" to ensure the stable work.

The **"Scale factor"** is the ratio between the time delay and the position of the tape. You can set or correct this value by passing a sheet of paper through the machine and setting this value so that the "Length" parameter on the main screen should be the size of the paper in millimetre. Actually this is the speed of the sheet under the heads in mm/s.

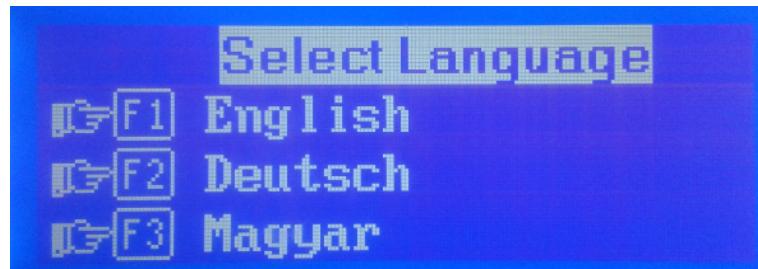
Setting the parameters

in the drawing above you can see the function of the parameters.



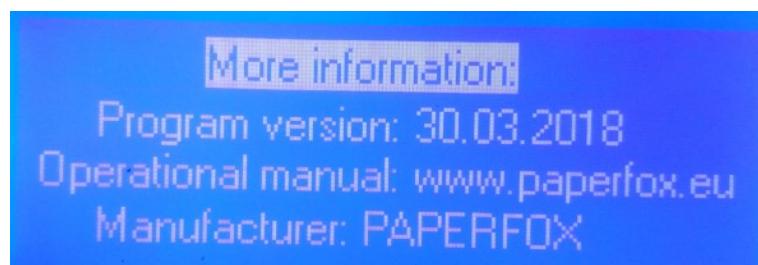
The sheet arrives under the optosensor, after the Start delay arrives to the taping head. The device calculates the taping start positions to this delay. The taping stop points are calculated with the Stop delay. It can be slightly different because of mechanical differences. The "End" sheet end delay is used to calculate the time difference when the sheet runs out from the optosensor until the sheet runs out from the taping head. When the sheet has ran out from the taping head the taping process stops even if the programmed position is still not achieved. (B8 position on the picture.)

Language screen



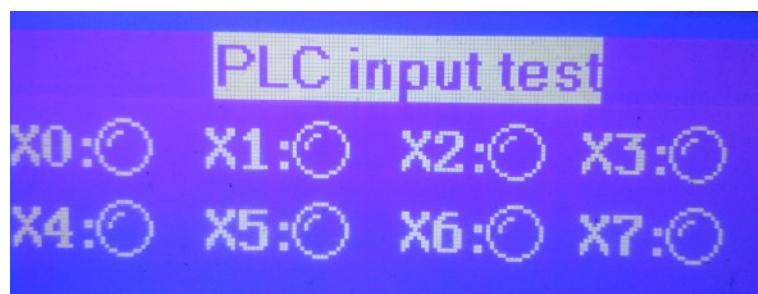
You can select the desired language for operating the device by pressing the F1, F2 or F3 buttons.

Information screen



There are some useful information about the device at the "More information" screen.

PLC Input test screen



You can check the inputs of the PLC for diagnostic purpose. The X0 input is the optosensor, the X1 is the motor switch the other inputs are not used.



PLC Output test screen

You can set the outputs of the PLC for diagnostic purpose. Y0 and Y1 outputs are driving the pneumatic valves at the head-a and head-b. Y2 drives the lamp at the motor switch. Y4 switches the motor. The other outputs are not used.

Delay screens

Head-B (ms)			
33	92	462	511
0	0	0	0

For diagnostic purposes you can study the delay values.

CE-Declaration of Conformity

Product name: Paperfox FTD-1 Tape applicator

GManufacturer: Fürcht Zoltán ev. H-2142 Nagytarcsa Ganz Á. u. 3/7.

Applied standards:

- EN 292-2 / A1 1995
- EN 60204-1
- EN 50082-2:1993
- EN 50081-2:1993
- EN 1088

Nagytarcsa, 2016.Mai.22.



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