Peel-off Adapter Automatic for Transfer Printer Apollo 1/2/3, A8

Part-No. 553 3265 / 594 2560

Operator's Manual

Edition 1/01

Product Description

The **peel-off adapter automatic** allows you to control the printers **Apollo 1**, **Apollo 2**, **Apollo 3** and **A8** in peel-off mode without having to use a connected present sensor.
In peel-off mode, labels are removed from the silicon liner immediately after printing. The labels are then placed in the dispense position for further processing. Once a signal is sent to the printer indicating that the labels have been removed from the dispense position, the print job will begin printing again.
Normally a present sensor is used to detect that the labels has been removed.

The **peel-off adapter automatic** allows you to use an external system or device instead of a present sensor to control the peel-off process.
The following signals can be exchanged between the printer and the external system or device :

1. An external start signal will trigger the printer to begin printing the labels.
2. An output signal from the printer will indicate that the label has reached the dispense position.
3. An external signal will inform the printer that the label was taken.
4. An error message sent from the printer will indicate that a printer error has occured.

These signals make it possible to control the printer when designing an automatic applicator or other external device.

The peel-off adapter is delivered without connections, because it is not necessary to use all signals for each application.
The required connections of the PCB are to cable.

Package Contents

The **peel-off adapter automatic** consists of following components:

PCB with 15 pin SUB-D connector
SUB-D15 Casing
Peel-off Plate (only in the package contents of part number 553 3265)

Modes of Operation

Because of the communication possibilities between the printer and the external system or device, there are two different modes of operation to choose from „Print after label taken“ and „Print on demand“.

1. **Print after label taken**
   - The print job begins.
     The first label is printed and placed in the dispense position.
   - The output signal „Label is ready“ is given from the printer.
   - The printed label is removed.
   - The signal „Label taken“ is sent to the printer.
     The silicon liner is drawn back (only if the backfeed is active) and the next label is printed.
     As soon as this label begins printing, the next cycle begins.

2. **Print on Demand**
   - The print job is sent to the printer.
   - The „Start printing“ signal is sent.
     The first label is printed and placed in the dispense position.
   - The output signal „Label is ready“ is given from the printer.
   - The printed label is taken.
   - The signal „Label taken“ is sent to the printer.
     The silicon liner is drawn back (only if the backfeed is active).
   - The printer is ready to receive the next „Start printing“ signal in order to begin the next cycle.
     Once this signal is sent, the next label will be printed.

Pin Assignment

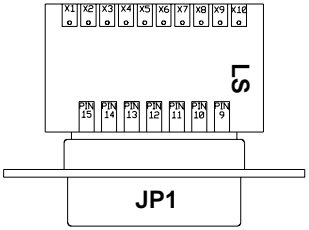

Fig. 1 PCB with 15 pin SUB-D connector

Connection	Direction	Description
X1	input (+)	start signal
X2	input (-)	start signal
X3	output (collector)	printer error
X4	output (emitter)	printer error
X5	output (collector)	label is ready
X6	output (emitter)	label is ready
X7	input (+)	label is taken
X8	input (-)	label is taken
X9		24V connection
X10		ground

Table 1 Pin Connection Assignment

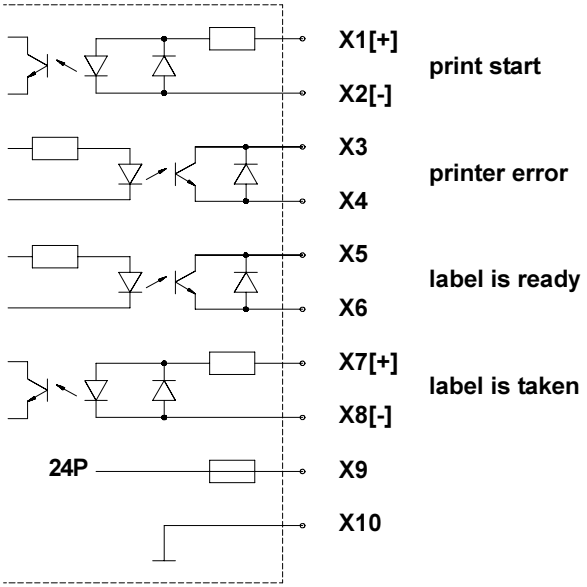

Fig. 2 Circuit diagram of the inputs and outputs

Explanation of the Circuit Diagram

Optocouplers are used to isolate the printer from the inputs. This protects the printer from any potential damage in case of a wiring error.

X1 / X2 - input signal „Start printing“
Print on Demand
X1 / X2 must be used in the „Print on Demand“ mode.
The signal „Start printing“ is sent to the printer when 24V is applied to X1 and ground is applied to X2.
The current is limited internally by a current limiting resistor of 2.2 kΩ at 10mA.
When turning on the printer, this signal should not be present.

Print after Label Taken
The X1 / X2 signal is not used in the „Print after Label Taken“ mode.
X1 and X2 must remain unconnected.
A jumper must be added between JP1-6 and JP1-2 to configure the „Print after label taken mode“.

X3 / X4 - output signal „Printer error“
If an error occurs, (e.g. out of paper or ribbon), the output is revers biased, which means that the optocoupler’s transistor output appears as an open circuit.
The current must be limited externally to 10mA.
The voltage at the outputs should not be higher than 30V.

X5 / X6 - output signal „Label is ready“
If this signal occurs, the output is reverse biased, which means that the optocoupler’s transistor output appears as an open circuit.
The current must be limited externally to 10mA.
The voltage at the outputs should not be higher than 30V.

X7 / X8 - input signal „Label is taken“
The signal „Label is taken“ is sent to the printer when 24V is applied to X7 and ground is applied to X8.
The current is limited internally by a current limiting resistor of 2.2 kΩ.

X9 / X10 - 24P
The 24V available at X9 (+) may only be used for supplying voltage to passive switches (e.g. foot switches, hand-buttons).
The 24V may also be used as power supply for a sensor only if X10 (ground) is used as its ground.

Caution !
When using a powered sensor or other external device, always be sure to connect the adapter’s ground at X10 to the ground of the external device to prevent the possibility of a floating ground, which could cause erroneous signals on the adapter.
The current is limited to a maximum of 100 mA.
Using higher current will damage the device !

Installation the Peel-off Adapter Automatic

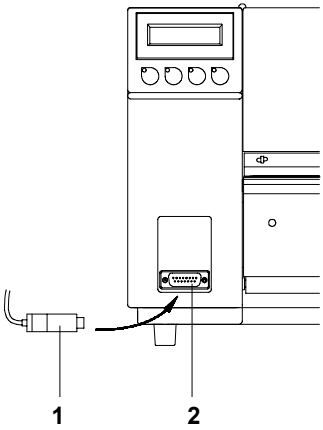

Fig. 3 Installation of the peel-off adapter

Caution !
Verify that the printer has been turned off before you assemble the adapter.

1. Turn off the printer.
2. Attach the peel-off plate on the printer.
3. Plug the 15-pin SUB-D connector of peel-off adapter (**1**) into the peripheral port (**2**) on the **printer**.
4. Load the labels and ribbon according to the instructions found in the Operator's Manual **Apollo 1/2/3 or A8**.
5. Turn on the printer.

Caution !
When turning on the printer, make sure that there is no input signal at X1 and X2.

6. Start the print job after having selected the operation mode.

Notice !
The adapter will not function in BATCH mode. You must use PEEL-OFF mode.

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