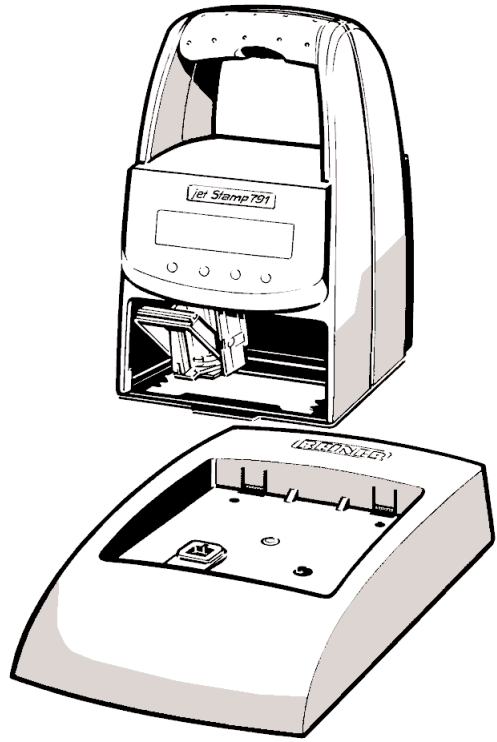
REINER

Operating Instructions

jetStamp 791

Electronic Hand Stamp
with Flexible Impression Selection



Version 1.6

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= Information, or note

= Warning

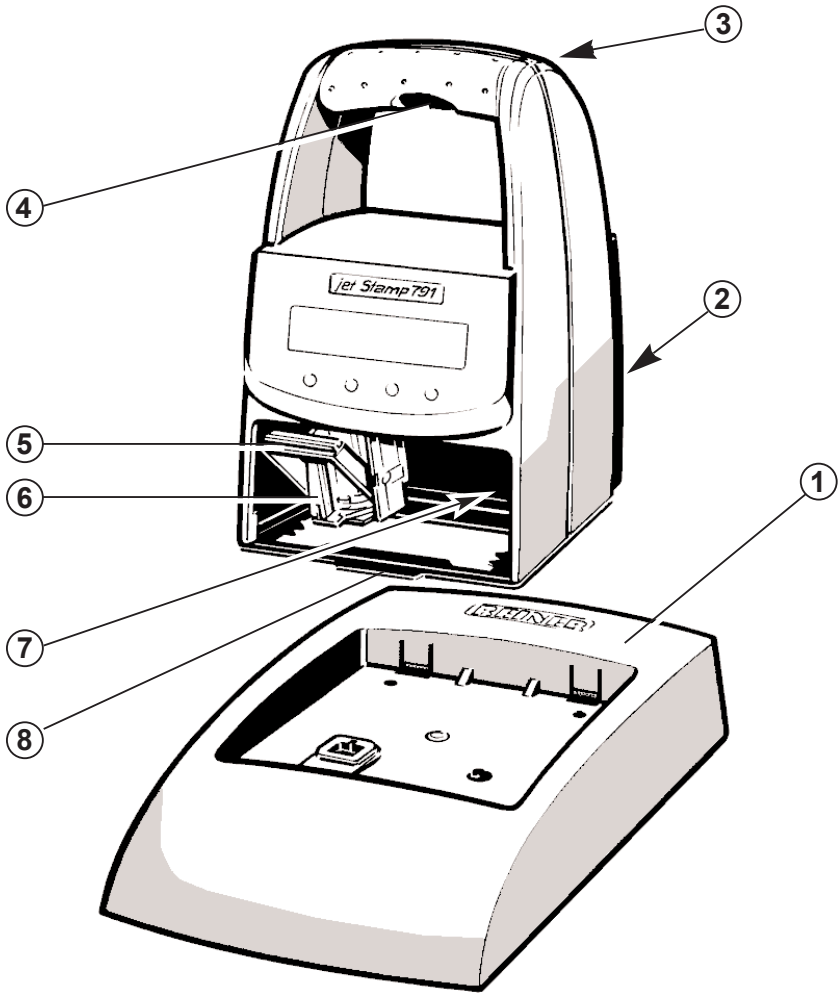
Safety instructions

On this page, you will find safety instructions that you must always observe when handling and working with your Electronic Hand Stamp.

- The *jetStamp* 791 complies with the relevant safety regulations for information technology equipment, including office machinery.
- Unauthorised opening of the unit and improper repairs can cause considerable danger (fire hazard).

  To avoid the danger of crushing, do not insert your finger between the baseplate and the print carriage.
- The ink in the ink cartridge is harmful! Never hold the lower face of the jetStamp 791 against a person's face.
  Keep ink cartridges out of the reach of children.
- Transport the machine only in its original package or other suitable package that provides protection against shock and impact.
- If the machine is taken from a cold environment into a warm room, dew may form on it. Wait until the machine has warmed up to room temperature and is absolutely dry before starting to use it.
- Make sure that the local mains voltage corresponds to the voltage stated on the mains unit.
- Ensure that the locally-installed mains socket with protective earth, which you use for the machine, is readily accessible at all times.
- The machine has no ON / OFF switch. To disconnect it from the mains you must pull the mains unit out of the mains socket.
- Arrange the connection leads so that they do not create a hazard (danger of tripping) and cannot be damaged.
- Take care that no objects (e.g. necklaces, paper clips, or liquids) fall into the machine - danger of electric shock and short circuit.
- In an emergency, e.g. in the event of damage to the machine casing, control elements or the mains lead, or if an object or liquid falls into the machine, pull the mains unit out of the mains socket and inform your sales agent or our Service Department.

Control elements



1 = Base unit
2 = Connection for data transfer (V.24 interface) and mains unit
3 = Connection socket for external triggering
4 = Trigger
5 = Locking rail for ink cartridge
6 = Ink cartridge
7 = Green indicator lamp
8 = Locating tab

Unpack the stamp

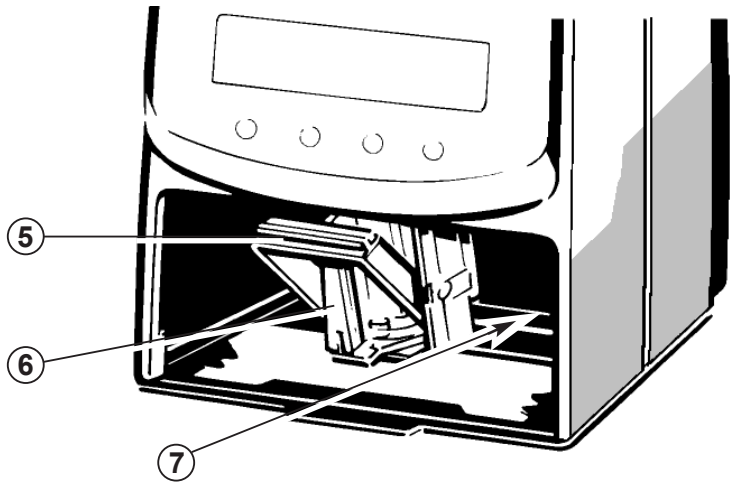
Note: use only original REINER components!

Place the *jetStamp* 791 in the base unit, taking care of the following points:

- Engage the locating tab (8) and place the *jetStamp* 791 in the base unit.
- Connect the V.24 adapter with the mains unit, use the data cable to connect the *jetStamp* 791 to the V.24 adapter.
- Connect the V.24 adapter to the PC: The green indicator lamp (7) lights
- Avoid exposing the *jetStamp* 791 to direct sunlight.
  See page 11, 'Technical data' for permissible ambient temperature.

Installing the ink cartridge:

- Take the *jetStamp* 791 out of the base unit.
- Take the ink cartridge out of its packing (follow the manufacturer's instructions!)
- Press the locking rail (5) to the rear and insert the ink cartridge into the print carriage with its grip (6) towards you.
- Pull the locking rail (5) forwards again until it engages.



Stamping

Stamping is carried out by pressing the red trigger in the grip, or it can be triggered externally through a contact, which is connected to the built-in socket with a jack (2.5 mm / 2-pin / mono) - see also page 5, 'Control elements'.

Depending on the impression transmitted in 'Online' mode, or on the stored impression in 'Offline' mode, a single or two-line impression will be printed. The positions of the two lines of the impression are shown in the diagram below.

- Voltages at the built-in socket of >1 V cause damage to the machine!
- The length of cable for external triggering must not exceed 1 m.
- The ink in the ink cartridge is harmful! Never hold the lower face of the *jetStamp* 791 against a person's face.

Stamping is not possible under the following conditions:

- When there is a power failure
- *jetStamp* 791 is in 'Offline' mode and no impression is stored
- *jetStamp* 791 is in 'Online' mode and no impression is transmitted
- *jetStamp* 791 is in the base station

A = print position of the first line

B = print position of the second line

C = maximum width for both lines

Changing the ink cartridge

Changing the ink cartridge is necessary when the impression on documents is faint or incomplete.

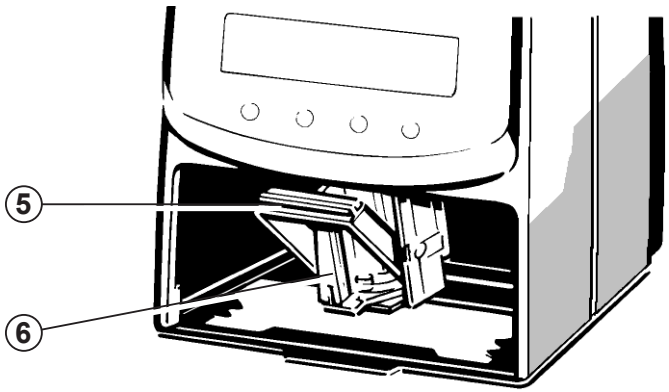
The ink in the cartridge is harmful. Do not swallow it!
Keep ink cartridges out of the reach of children!

Removing the used ink cartridge:

- Take the *jetStamp* 791 out of the base unit
- Press the locking rail (5) to the rear until it clicks and draw the ink cartridge out towards you

Inserting a new ink cartridge:

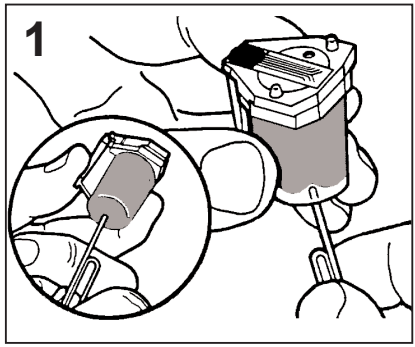
- Move the print carriage to the changing position - use the sequence 'Ink cartridge to change position' (see page 24)
- Take the ink cartridge out of its packing (follow the manufacturer's instructions!)
- Insert the ink cartridge into the print carriage with its grip (6) towards you
- Pull the locking rail (5) forwards again until it engages

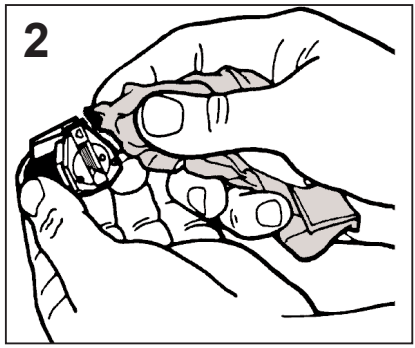


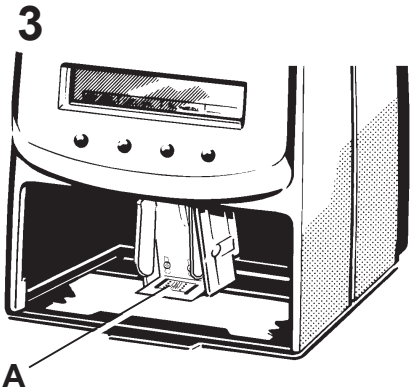
Testing and cleaning the ink cartridge

Testing and cleaning the ink cartridge is necessary, for example, if the impression on documents is incomplete, or if ink dots are missing.

- Remove the ink cartridge (see also page 8).
- Insert a straightened paper clip carefully into the ink container, until ink flows out on to the silver plate (see Fig. 1).
- Wait until the ink has flowed back into the cartridge.
- Remove traces of ink from the silver plate with a soft cloth (see Fig. 2).
- Wipe any ink and traces of dried ink from the ink cartridge support (A), again using a soft cloth, if necessary soaked in methylated spirit (see Figure 3).
- Replace the ink cartridge and secure it with the locking bar







Possible faults

Mains failure

In the event of a mains failure or the supply being interrupted during printing, the print carriage stops immediately; that impression is not completed.

When the power supply has been restored, restarting printing first moves the print carriage to its initial position, then a new printing operation starts.

Reset button

Resetting the unit restarts the machine program.
The reset button should be used when the *jetStamp* 791 is in an underfined condition, or if the display is confused.

The reset button is operated by inserting a straightened paper clip or similar object into the small circular opening in the rear face of the machine.

Technical data

Stamping time	ca. 0,7 seconds
Stamping cycle	> 2 seconds
Print capacity per ink cartridge	ca. 300.000 characters
Dimensions, *jetStamp* 791 only	(W x D x H in mm) 95 x 70 x 170
Dimensions, base unit only	(W x D x H in mm) 102 x 135 x 32
Height of *jetStamp* 791 in base unit	187 mm
Weight of *jetStamp* 791	ca. 490 g
Weight of base unit	ca. 360 g
Ambient temperature for operation	+ 8° C to + 35° C (temper. limits) down to - 8° C possible for a limited period
Temperature for transport and storage	- 20° C to + 60° C (up to 48 hours)
Humidity for operation	30% to 70% relative humidity (limits)
Humidity for transport and storage	10% to 90% relative humidity
Power supply by:	REINER AC adapter Protection class II, protection IPXO
Max. power consumption of *jetStamp*	13,2 W
Cable length for external triggering	maximum 1 m
Noise level:	< 60 dB(A) (workplace-related emissions to ISO 7779)
Safety standards of *jetStamp* 791	Protection class II, Degree of protection IPXO

Tested Safety

jetStamp 791 is manufactured to the safety standards IEC 950, EN 60950 and VDE 0805.

Markings

jetStamp 791 complies with EC Directive 89 / 336 / EEC 'Electromagnetic compatibility', and therefore carries the CE symbol.

Sales and technical service

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E - Mail: peter.vetter@reiner.de

Your sales partner:

Description of V24 interface

General

The REINER Stamp *jetStamp* 791 can be operated in the following ways:

- In “Online stamping” mode by communicating with a host computer via the V24 serial interface

or

- In “Offline stamping” mode, independent of a host computer.

“Online stamping” mode:

In its standard setting, the stamp permits bi-directional operation.
The host computer sends printing and control information and receives status information back through the V24 interface.

The handling of printing tasks is line-related, that is to say, before printing is started all printing information must have been transmitted. A print start code then automatically starts the printing operation.

A printing operation can also be started manually using the trigger on the hand stamp (see page 5). To do this, print initiation must be called up using the sequence 'Status message'; print data and the print start code are transmitted.

“Offline stamping” mode:

After transmitting the sequence "Save an internal impression" and then sending the impression data (text blocks), these will be stored and can be printed, by operating the trigger, as soon as the sequence "Offline stamping" has been transmitted.

When the *jetStamp* 791 is to be used in the "Online stamping" mode again, the unit must be reconnected to the host computer and the sequence "Online stamping" transmitted.

Works settings for V24 - interface

Configuration and parameter settings:

The interface is located at the rear face of the unit (see page 5, 'Control elements')

Assignment of the RJ 12 6 - pin interface:

Signal name			Meaning
Pin 1, 2	:	GND	Signal ground
Pin 3	:	/ TxD	Transmit data
Pin 4	:	/ RxD	Receive data (input)
Pin 5, 6	:	VCC	Supply voltage

Standard settings:

- Baud rate : 9600
- Parity : NONE
- Date bits : 8
- Start bits : 1
- Stop bits : 1
- Handshake : Software (XON / XOFF)

Software-Handshake XON / XOFF

Control codes:
XOFF : interface for print data trasmission inactive
XON : interface for print data transmission active

XOFF is sent when:
- print buffer is full

XON is sent when:
- print buffer is empty

Status request (ESC ?):
- A status request is always possible, even during printing. However, acknowledgement of the status request only takes place when the stamping operation has been completed (> = 600 msec after transmission of control code FF)

Control of printing via the V24 interface

Codes that can be processed by the *jetStamp* 791 (see tables on pages 18 and 19)

Control codes:

Hex	Dec.	ASCII	Meaning:
0C	12	FF	Line end and print start
0A	10	LF	End of line 1 of 2-line impression
18	24	CAN	Clear buffer
1B	27	ESC	Start of control sequence (see pages 18 ... 22)
11	17	XON	*jetStamp* 791 sends this code to host, when the interface is activated.
13	19	XOFF	*jetStamp* 791 sends this code to host, when the interface is de-activated.

Printable characters:

Characters as given in the code table on page 18, except control codes (FF, LF, XON, XOFF, CAN and ESC).

Other characters:

Characters not given in the code table are printed as blanks.

Code table - general

Characters from 0 to 127

Dec. →		0	16	32	48	64	80	96	112
↓	Hex.	0	1	2	3	4	5	6	7
0	0			BLANK	0	@	P		
1	1		XON		1	A	Q		
2	2				2	B	R		
3	3		XOFF		3	C	S		
4	4			$	4	D	T		
5	5				5	E	U		
6	6			&	6	F	V		
7	7				7	G	W		
8	8		CAN		8	H	X		
9	9				9	I	Y		
10	A			*	:	J	Z		
11	B		ESC	+		K			£
12	C	FF		,		L			•
13	D			-		M			€
14	E			.		N			
15	F			/		O			

West European code table:

Characters from 128 to 255

Dec. →		128	144	160	176	192	208	224	240
↓	Hex.	8	9	A	B	C	D	E	F
0	0	Ç	É					Ó	
1	1								
2	2		Æ				Ê		
3	3								
4	4						È		
5	5			Ñ	Á				
6	6						Í		
7	7				À				
8	8								
9	9		Ö					Ú	
10	A		Ü						
11	B								
12	C								
13	D		Ø						
14	E	Ä							
15	F	Å							

Sending print data

Print data can consist of one or two lines, each of which may be made up of one or more text blocks. A text block is a string of characters, which occupy a certain position in the print line and have a certain typeface.
To determine a text block, the following sequences must be sent to the *jetStamp* 791 :

1. ESC sequence for print start position (first text block) or text block spacing (further text blocks) and typeface (see also page 21, 'Sending sequences').

2. Text block characters

   Transmission order 1, 2 must be observed for each text block.

   Text block data (ESC sequences and text) must be sent to the *jetStamp* 791 from left to right, and will be printed in that order (see also page 33, 'Application example').

   The 'Limits' given on page 27 must be observed.
   If these limits are exceeded, then Error 08 occurs and must be cleared by taking the appropriate measures (see page 30, 'Error messages').

Example:

Printer initializing
Clear line buffer

First text block:
- Print start position
- Typeface
- Text block characters

Second and further text blocks:
- Text block spacing
- Typeface
- Text block characters

Sending control sequences

There are two types of sequences:

1. Control code

A single character is sent to the *jetStamp* 791. The *jetStamp* 791 interprets this character as control code (not as a printable character) and carries out the desired function.

Example:

ASCII :	CAN	Function:	Clear line buffer
Hex. :	18		
Dec. :	24		

Programming example in BASIC:

```
10 PRINT #1, CHR$(24);
```

2. ESC sequences:

There are control sequences that consist of several characters. Such sequences are introduced by the control code ESC, where < n > represents the decimal value to be sent to the *jetStamp* 791.

Example:

ASCII :	ESC	"$"	<35>	Function:
Hex. :	1B	24	23	Print start position
Dec. :	27	36	35	10 mm from extreme left / right of print zone ((10 / 0,282) = 35)

Programming examples in BASIC:

```
1st. possibility:    10 PRINT #1, CHR$(27);"$";CHR$(35);
2nd. possiblility:   10 PRINT #1, CHR$(27);CHR$(36);CHR$(35);
```

Printer initializing — ESC @

ASCII	:	ESC	"@"
Hex.	:	1B	40
Dez.	:	27	64

Description of printer initializing (default settings):

typeface	:	narrow
Stamping start position	:	0
Text block spacing	:	0

Clear line buffer — CAN

ASCII	:	CAN
Hex	:	18
Dec.	:	24

Description of Clear line buffer:
All information about the print line is erased.

Print start of line 1 at 2-line impression — LF

ASCII	:	LF
Hex	:	0A
Dec.	:	10

Description of print start:
Data in the line buffer for Line 1 are printed.
If there is a mechanical problem preventing free movement of the carriage, Error 09 may be displayed (see page 30, 'Error messages').

Print start — FF

ASCII	:	FF
Hex	:	0C
Dec.	:	12

Description of print start:
Data in the line buffer for Line 1 of a single-line impression or for Line 2 of a 2-line impression are printed. If there is a mechanical problem preventing free movement of the carriage, Error 09 may be displayed (see page 30, 'Error messages').

Typeface ESC k

ASCII	:	ESC	"k"	<n>	n: decimal value
Hex.	:	1B	6B	<n>	
Dec.	:	27	107	<n>	

Description:
Selection of a typeface:

n = 1 (dec.01) :	normal type	2,54 mm alpha numeric, 10 characters / inch
n = 2 (dec.02) :	narrow type	2,11 mm alpha numeric, 12 characters / inch
n = 3 (dec.03) :	broad type	4,23 mm numbers only, 6 characters / inch
n > = 4 (>=dec.04) :		wrong typeface; narrow type was set and Error 05 will be displayed (see page 30, 'Error messages').

See page 27 for the details of the print characters.

Print start position ESC $

ASCII	:	ESC	"$"	<n>	n: decimal value
Hex.	:	1B	24	<n>	
Dec.	:	27	36	<n>	

Description:
Values for print start position: 0 < n < 247 (decimal values)
Resolution: n = 1 / 152 inch

The maximum print start position (n = 247) is 41,3 mm from the left-hand reference point of the impression zone.
If a print start position n > = 248 is entered, the print start position is set to 0 and Error 07 is displayed (see page 30). The print start position must always be set before the first text block is transmitted.

Text block spacing ESC SP

ASCII	:	ESC	" "	<n>	n: decimal value
Hex.	:	1B	20	<n>	
Dec.	:	27	32	<n>	

Description:
Values for Text block spacing: 0 < n < 234 (decimal values)
Resolution: n = 1 / 152 inch

The maximum text block spacing (n = 234) is 39,1 mm.
It is the distance between two adjacent text blocks.
If a text block spacing n > = 248 is set, the text block spacing is set to 0, and Error 06 is displayed (see page 30, 'Error messages').
The text block spacing must always be set before the first text block is transmitted.

Ink cartridge to change position ESC i T A 4

ASCII	:	ESC	"i"	"T"	"A"	"4"
Hex.	:	1B	69	54	41	34
Dec.	:	27	105	84	65	52

Description:
When the control sequence is sent for the first time, the print carriage with the ink cartridge is moved to the change position, so that it is possible to remove the ink cartridge.
Renewed transmission of the control sequence returns the print carriage to its starting position (left-hand stop).

Saving an internal impression ESC : 1

ASCII	:	ESC	":"	"1"
Hex.	:	1B	3A	31
Dec.	:	27	58	49

Description:
After the control sequence 'ESC x1' has been sent, the print data (Line 1: control sequences, control codes, data etc., control code LF (FF)) are stored as an internal impression if the quantity of print data does not exceed the value '220'. The internal impression can then be printed after transmitting the control sequence Offline stamping 'ESC x1' and operating the trigger on the unit. If Error 04 appears, then proceed as described in 'Error messages' on page 30.

Online stamping ESC x 0

ASCII	:	ESC	"x"	"0"
Hex.	:	1B	78	30
Dec.	:	27	120	48

Description:
Default setting. The machine prints data that have been transmitted via the V24 interface if the trigger is pressed, or if the application program carries out a print start function (see also page 29, 'Print mode status request').

Offline stamping (internal impression) ESC x 1

ASCII	:	ESC	"x"	"1"
Hex.	:	1B	78	31
Dec.	:	27	120	49

Description:
It is only possible to switch from the 'Online stamping' mode to 'Offline stamping' if an impression has first been saved.
The machine prints the print data stored internally when the trigger is pressed (see also page 29, 'Print mode status').

Instructions for using control sequences

The points below are important and must be observed:

- Clear sequences for initializing the printer and the print buffer:

  Before sending text block data, these sequences must be sent.

- Transmission order for text blocks:

  The position in which the text blocks should appear on the document is the determining factor.
  The Text block data, Text block spacing, typeface and text must be sent to the printer in order, from left to right.

- For Text block data, the order must be as follows:

  1. Print start position (only before the first text)
  2. Typeface
  3. Text 1
  4. Text block spacing
  5. Typeface
  6. Text 2 etc.

- A typeface setting is only valid for the text block that immediately follows it. It does not apply to further text blocks.

- If certain characters are not available in the typeface selected, they will be printed as blanks.

- If the wrong data parameters are given in ESC sequences, (e.g. Text block spacing too large in ESC " ") an error number will be displayed (see also page 30, 'Error messages'). Errors can be called up under 'Print status' (see also page 28).

Print character sets

1. Normal type: characters 0 - 9, blank, /, &, *, ,, -, ., :, A to Z and country-specific characters (see pages 18 and 19)
2. Narrow type: characters 0 - 9, blank, /, &, *, ,, -, ., :, A to Z and country-specific characters (see pages 18 and 19)
3. Broad type: characters 0 - 9, blank, -, /

Assignment: typeface (see ESC "k" <n>) to print character set

Typeface < n >	Meaning	Relevant print character set
1	Normal type 10 characters / inch	1
2	Narrow type 15 characters / inch	2
3	Broad type 7 characters / inch	3

Limits

Line-related limits:

Max. impression length	:	43,43 mm
Max. text blocks	:	30
Max. no. of characters, normal type	:	17
Max. no. of characters, narrow type	:	20
Max. no. of characters, broad type	:	9

Text-block-related limits:

Max. no. of characters	:	20 in narrow type

Status status

Print status ESC ?

Requirements for a status message from the *jetStamp* 791

ASCII	:	ESC	"?"
Hex.	:	1B	3F
Dec.	:	27	63

Reaction: *jetStamp* 791 sends the following status messages when it receives ESC "?"

ASCII	:	ESC	"?"	n	n: HEX-Codes
Hex.	:	1B	3F	n	
Dec.	:	27	63	n	

Possible values of n:

- Error messages

  n = 01h to n = 09h (see page 30, 'Error messages')
  An error can be called up until the next impression is printed

- Other messages

  n = 00h : Print end, no error
  n = 10h : Printing operation is active
  n = 20h : Print carriage in change position
  n = 28h : Trigger on *jetStamp* 791 operated

Please note:
A status request is always possible, even during printing. However, acknowledgement of the status request only occurs when printing is almost completed. There will normally be a time delay of up to 600 msec. for the acknowledgement signal.

Memory status ESC : ?

Requirements for a status message from the *jetStamp* 791

ASCII	:	ESC	":"	"?"
Hex.	:	1B	3A	3F
Dec.	:	27	58	63

Reaction: *jetStamp* 791 sends the following status message when it receives ESC ":?"

ASCII	:	ESC	":"	"?"	n	n:	ASCII-Code
Hex.	:	1B	3A	3F	n		
Dec.	:	27	58	63	n		

Possible values of n:

Error messages

n = "0" : Error during saving. Impression data not saved. Unit in mode "Offline stamping".
n = "1" : Saving operation OK. Impression saved.
n = "2" : Saving operation active.
n = "3" : No saving operation carried out.

Print mode status ESC x ?

Requirements for a status message from the *jetStamp* 791

ASCII	:	ESC	"x"	"?"
Hex.	:	1B	78	3F
Dec.	:	27	120	63

Reaction: *jetStamp* 791 sends the following status message when it receives ESC "x?" :

ASCII	:	ESC	"x"	"?"	n	n:	ASCII-Code
Hex.	:	1B	78	3F	n		
Dec.	:	27	120	63	n		

Possible values of n:

Error messages

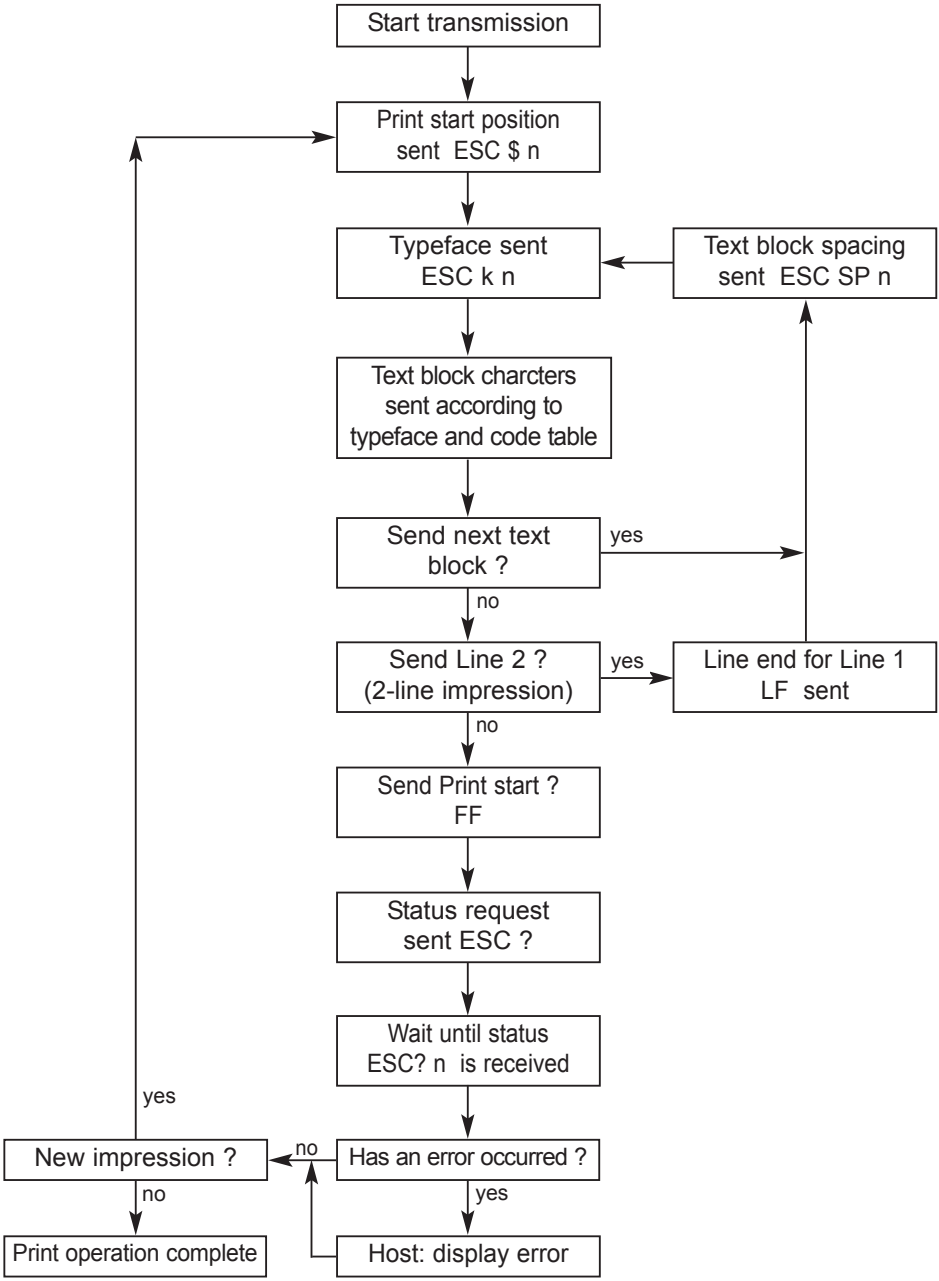
n = "0" : Machine is in print mode "Online stamping"
n = "1" : Machine is in print mode "Offline stamping"

Error messages

Number	Cause of error	Remedy
n = 01	Error during self-test after switching on the unit. EEProm memory with default-values has been overwritten.	Check if default values correspondto the required settings and parameters. If necesssary transfer it again.
n = 04	Error while changing EEProm memory. Writing in EEProm memory not successful.	Internal EEProm has writing errors. Send values again. If error occurs again, change EEProm.
n = 05	Error while transmitting impression data. Wrong typeface configured.	Value for typeface is not defined. Define typeface and send impression contents again.
n = 06	Error while transmitting impression data. Text block spacing set too large.	Value for Text block spacing is too arge. Reduce value and send impression contents again.
n = 07	Error while transmitting impression data. Print start position set too large.	Value for Print start position is too large. Reduce value and send impression contents again.
n = 08	Error while transmitting impression data. Impression exceeds maximum permissible width.	Reduce impression width and send impression contents again.
n = 09	Error occurs: • while printing an impression • during a reference run • while the print carriage is moving to the left stop No level change at position light barrier L - POS due to: • blockage of print carriages • light barrier L - POS defective • motor MO - DMT defective	Send impression contents again and following print out again.

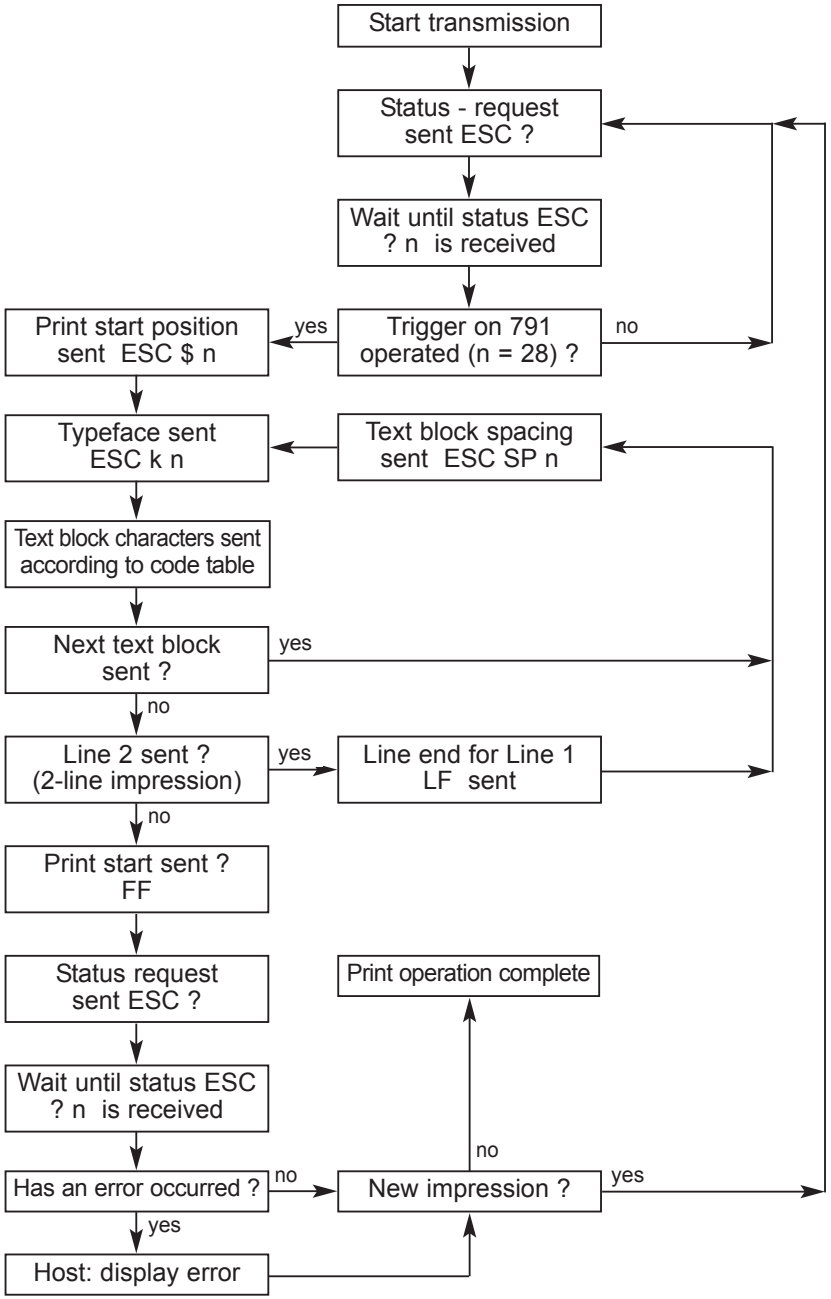
Flow chart - data transmission

Printing triggered by host



Flow chart - data transmission

Printing triggered at *jetStamp* 791



Application example

To be performed steps:

1. Connect the V.24 mains adapter with the mains unit. Use the data cable to connect the *jetStamp* 791 to the V.24 adapter, and connect the V.24 adapter to the PC.
2. Comply with the interface parameters of the *jetStamp* 791 (see page 16).
3. Send the sequences given below as examples to the *jetStamp* 791 .
4. The next print order may only be sent when the *jetStamp* 791 has signalled XON .

Please note also the following:

a) Impression to be printed: "TESTABDRUCK GERÄT 791"

Printer initialization	
Clear line buffer	
Print start position:	0 mm
Typeface:	normal type
Text 1:	"TESTABDRUCK"
Text block spacing:	6 mm (6 / 0,167 = 36)
Typeface:	narrow type
Text 2:	"GERÄT"
Text block spacing:	3 mm (3 / 0,167 = 18)
Typeface:	broad type
Text 3:	"791"
Immediate print start	

b) ESC-sequences:

Decimal	ESC-sequence (decimal value in < >)	Meaning
27 64	ESC “@”	Printer initialization
24	CAN	Clear line buffer
27 36 0	ESC “$” <0>	Print start pos. in column 0
27 107 01	ESC “k” <1>	Typeface 1 (normal type)
77 69 73 78 65 66 68 82 85 67 75		Text: “TESTABDRUCK”
27 32 36	ESC “SP” <36	Text block spacing 36 columns
27 107 02	ESC “k” <2>	Typeface 2 (narrow type)
71 69 82 142 84		Text: “GERÄT”
27 32 18	ESC “SP” <18>	Text block spacing 18 columns
27 107 03	ESC “k” <3>	Typeface 3 (broad type)
55 56 53		Text: “791”
12	FF	Immediate print start

c) Program example in Basic:

```
04   REM        Open V.24-interface COM1, set Device-Timeout DSR 1000 ms
05   OPEN       "com1:9600,N,8,1,DS1000" AS #1
10   REM        Sends control sequence  'Printer initializing'
20   PRINT #1,  CHR$(27);"@"
30   REM        Sends control code  'Clear line buffer'
40   PRINT #1,  CHR$(24)
70   REM        Sends control sequence  'Print start position 0'
80   PRINT #1,  CHR$(27);"$";CHR$(0)
90   REM        Sends control sequence  'Typeface 1'  (normal type)
100  PRINT #1,  CHR$(27);"k";CHR$(1)
110  REM        Text sent
120  PRINT #1,  "TESTABDRUCK"
130  REM        Sends control sequence  'Text block spacing 36 columns'
140  PRINT #1,  CHR$(27);CHR$(32);CHR$(36)
150  REM        Sends control sequence  'Typeface 2'  (narrow type)
160  PRINT #1,  CHR$(27);"k";CHR$(2)
170  REM        Sends text
180  PRINT #1,  "GERÄT"
190  REM        Sends control sequence  'Text block spacing 18 columns'
200  PRINT #1,  CHR$(27);CHR$(32);CHR$(18)
210  REM        Sends control sequence  'Typeface 3'  (broad type)
220  PRINT #1,  CHR$(27);"k";CHR$(3)
230  REM        Sends text
240  PRINT #1,  "791"
250  REM        Sends control code  'Print start'
260  PRINT #1,  CHR$(12)
```

During transmission of the print data, there must be immediate reaction to a change in the software handshake code, so as to prevent an overflow of the internal print buffer.

Summary of available control codes in numerical order

Decimal	Hexadec.	ASCII	Function	Page
12	0C	FF	Line end and print start	19
10	0A	LF	Line end Line 1 for 2 - line imprint	19
24	18	CAN	Clear line buffer	19
27 32	1B 20	ESC SP	Text block spacing	21
27 36	1B 24	ESC $	Print start position	20
27 63	1B 3F	ESC ?	Request status message	25
27 64	1B 40	ESC @	Printer initializing	19
27 107	1B 6B	ESC k	Set typeface	20

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