REINER

Operating Instructions

jetStamp 791

Electronic hand stamp
with flexible imprint selection

Version 3.0

Table of contents

Note = Information / Notice

Warning = Caution

= Safety hint

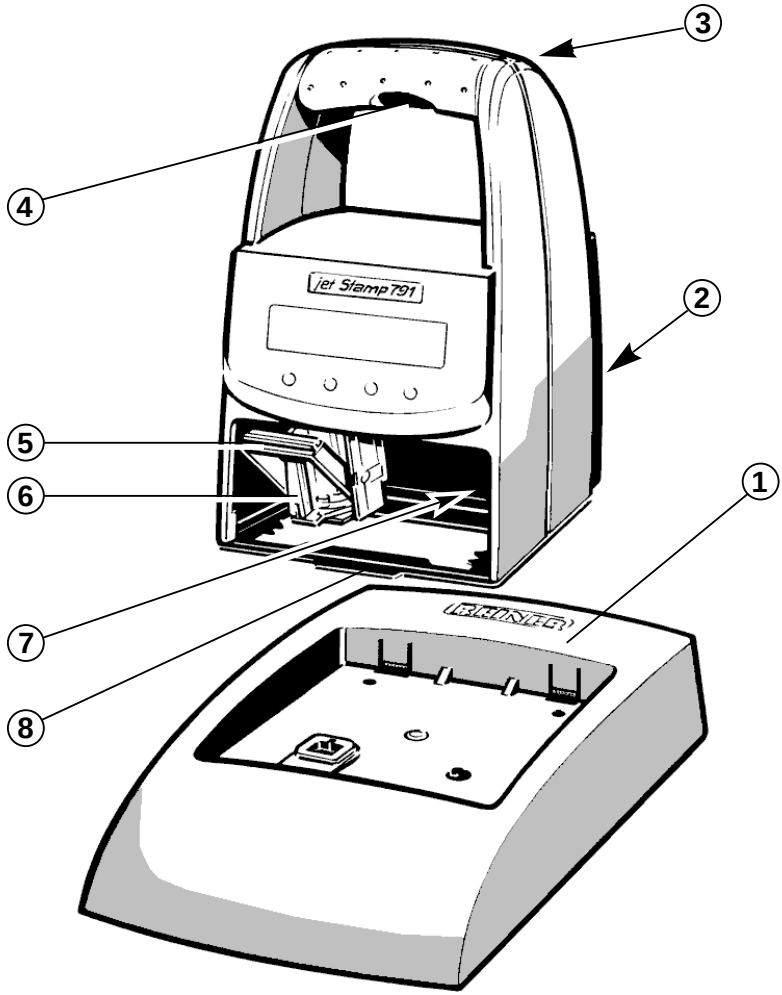
Safety instructions

On this page, you will find safety instructions that you must always observe when handling and working with your electronic hand htamp.

- *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

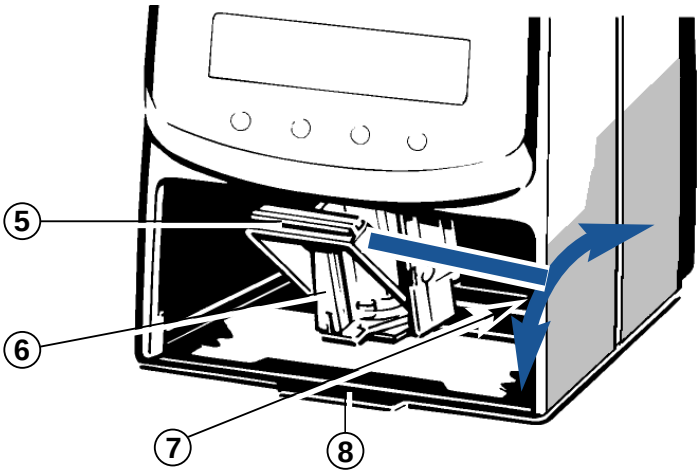
Note: use only original REINER components !

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

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

Installing the ink cartridge:

- Take *jetStamp* 791 out of the base unit
- Take the ink cartridge out of its packing and remove the protection filmfrom the ink cartridge
- 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

- The ink in the ink cartridge is harmful! Never hold the lower face of the *jetStamp* 791 against a person's face!

Warning

- The length of cable for external triggering must not exceed 1 m
- Voltages at the built-in socket of >1 V cause damages
- A power failure while printing may cause an incomplete imprint at the paper

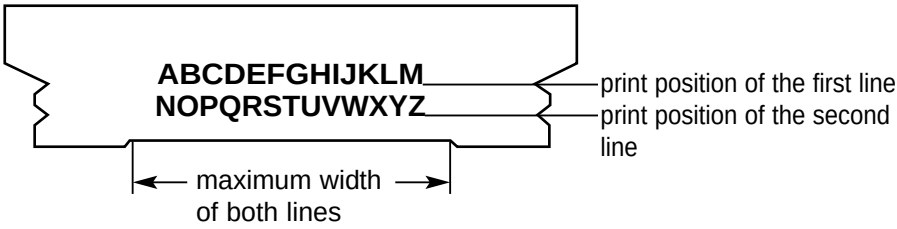
External triggering through a contact, which is connected to the built-in socket with a jack (2.5 mm / 2-pin / mono) see also page 5, 'Control elements'

Manual triggering Stamping is carried out by pressing the red trigger in the grip. Depending on the set imprint, a single or two-line imprint will be printed. The positions of the two lines of the imprint are shown in the diagram below

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

Stamping is not possible under the following conditions :

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



Changing the ink cartridge

Note

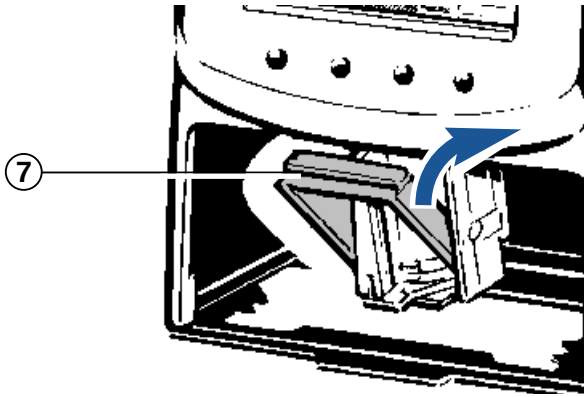
- The change of the ink cartridge may be necessary if the imprint is incomplete or if dots are missing
- For an optimal print performance the ink cartridge should be changed at least all six months
- The ink cartridge is ready to print that means there is no preparation necessary before using it
- Replacement ink cartridges are available with the order number 801 307 - 000 on REINER stock

Warning

The ink in the ink cartridge is harmful. Never swallow it! Always keep the ink cartridge out of the reach of children!

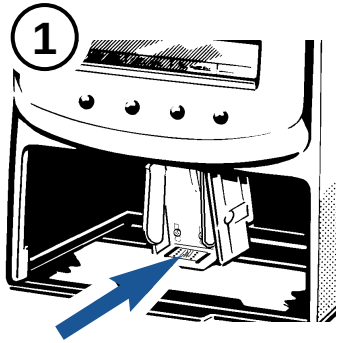
Removing a used ink cartridge:

- ▶ Take the *jetStamp* 791 out of the base unit
- ▶ Push the locking rail (7) back until it clicks into position, and then withdraw the ink cartridge forwards



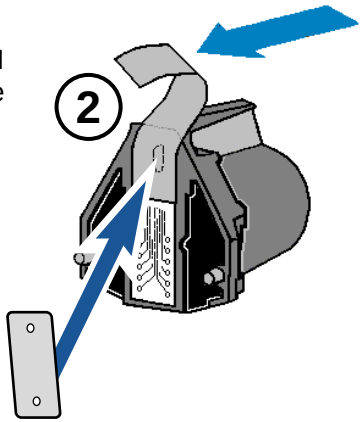
Note

Dirt and dried up ink at the holder of the ink cartridge can be removed with a soft cleaning cloth moistened in spirit (see figure1)



Insert the new ink cartridge:

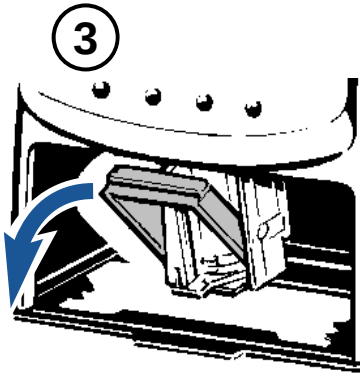
- Take the ink cartridge from the packaging and remove the coloured protection film from the ink cartridge (see figure 2)



- Take the small felt plate and put the felt side to the nozzle plate of the ink cartrige for approx. two seconds until a little bit of ink is at the felt

- Put in the new ink cartridge into the ink cartridge holder

- Push the locking clip downward until it engages, by this means the ink cartridge will be locked (see figure 3)



Possible faults

Note

Mains failure

In the event of a mains failure or the supply being interrupted during printing, the print carriage stops immediately; that imprint 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

Note

- Resetting the unit restarts the machine program
- The reset button should be operated if *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	approx. 0,7 seconds
Stamping cycle	> 2 seconds
Print capacity per ink cartridge	approx. 300.000 characters
Dimensions, *jetStamp* 791 only	(B x D x H in mm) 95 x 70 x 170
Dimensions, base unit only	(B x D x H in mm) 102 x 135 x 32
Height of *jetStamp* in base unit	187 mm
Weight of *jetStamp* 791	approx. 490 g
Weight of base unit	approx. 360 g
Ambient temperature for operation	+ 8° C ... + 35° C (temperat. limits) down to - 8° C conditional
Temperature for transport and storage	- 20° C ... + 60° C (up to 48 hours)
Humidity for operation	30% ... 70% relative humidity
Humidity for transport and storage	10% ... 90% relative humidity
Power supply	REINER AC adapter model A30908G, Protection class II
Manufacturer	Ontop European Div. of SAC Group
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)

Certifications

Tested safety

jetStamp is manufactured to the safety standards IEC / EN 60950 - 1

Marking

jetStamp complies with EC directives 2004 / 108 / EG ‘Electromagnetic compatibility’

Electro- and electronic appliances are off the point of domestic waste or residual waste

Description of V 24 interface

General

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

- In "Online printing mode " by communicating with a host computer via the V 24 serial interface

or

- In "Offline printing mode" independent of a host computer

"Online printing" mode:

In its standard setting, *jetStamp* permits bi-directional operation.
The host computer sends printing and control information and receives status information back through the V 24 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 automatically starts the printing operation.

A printing operation can also be started manually using the trigger at *jetStamp* (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 printing" 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 *jetStamp* 791 has to be used in the " Online stamping " mode again, the unit must be reconnected to the host computer and the sequence " Online stamping " has to be 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 V 24 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

Dez. →		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 *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 *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);
```

Control codes / Control sequences

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 imprint **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 imprint or for Line 2 of a 2-line imprint 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 imprint **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 imprint if the quantity of print data does not exceed the value '220'. The internal imprint can then be printed after transmitting the control sequence Offline printing ' ESC x1 ' and operating the trigger on the unit. If Error 04 appears, then proceed as described in ' Error messages ' on page 30.

Online printing **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 V 24 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 printing (internal imprint) **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 printing ' mode to ' Offline printing ' if an imprint 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

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 *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. Imprint data not saved
Unit in mode "Offline printing"
n = "1" : Saving operation OK. Imprint 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

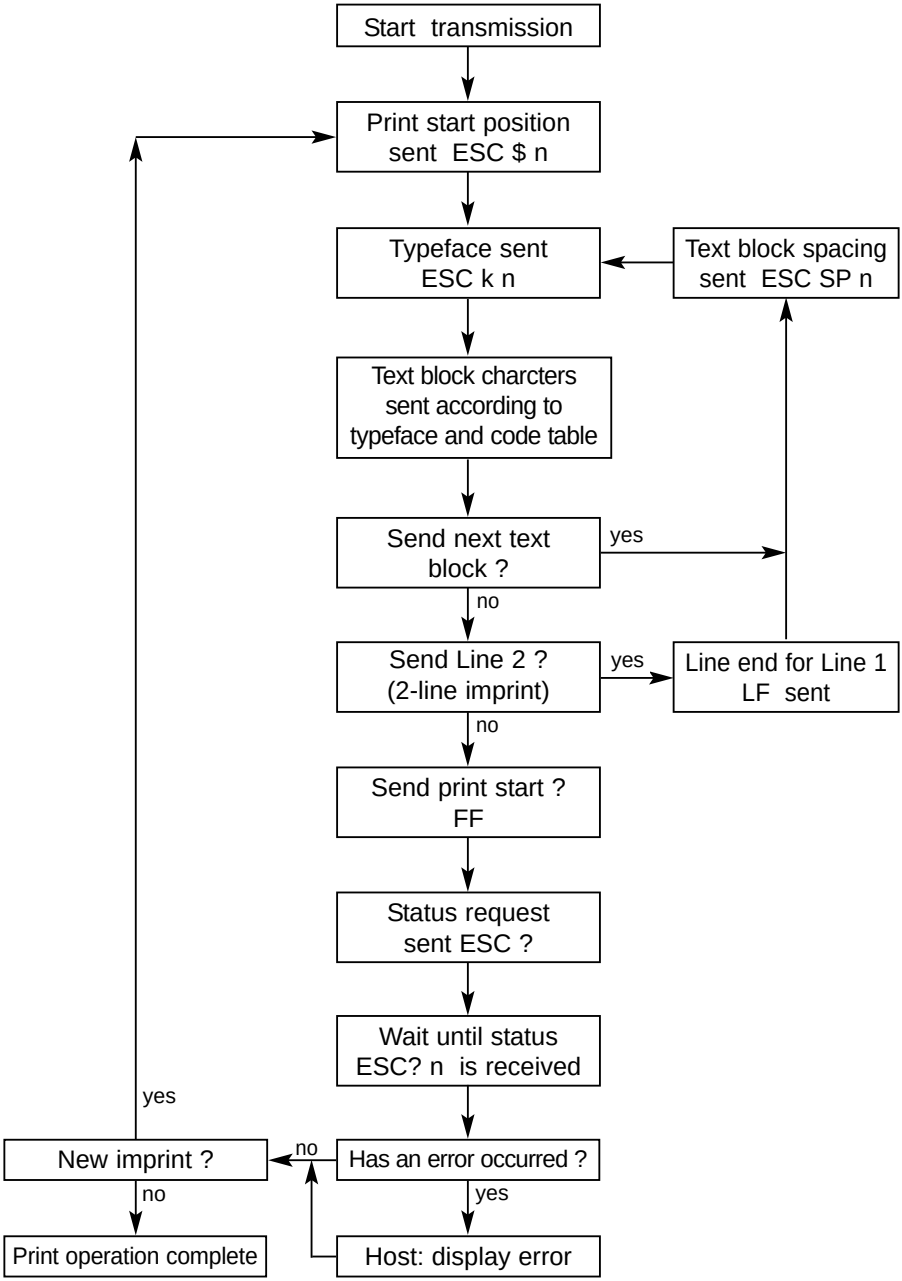
n = "0" : Machine is in print mode "Online printing"
n = "1" : Machine is in print mode "Offline printing"

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 correspond to the required settings and parameters. If necesssary transfer it again
n = 04	Error while changing EEProm memory. Writing in EEProm memory was not successful	Internal EEProm has writing errors. Send values again. If error occurs again, change EEProm
n = 05	Error while transmitting imprint data. Wrong typeface configured	Value for typeface is not defined. Define typeface and send imprint contents again
n = 06	Error while transmitting imprint data. Text block spacing set too large	Value for text block spacing is too large. Reduce value and send imprint contents again
n = 07	Error while transmitting imprint data. Print start position set too large	Value for print start position is too large. Reduce value and send imprint contents again
n = 08	Error while transmitting impression data. Imprint exceeds maximum permissible width	Reduce imprint width and send imprint contents again
n = 09	Error occurs: • while printing • 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 imprint contents again and following print out again

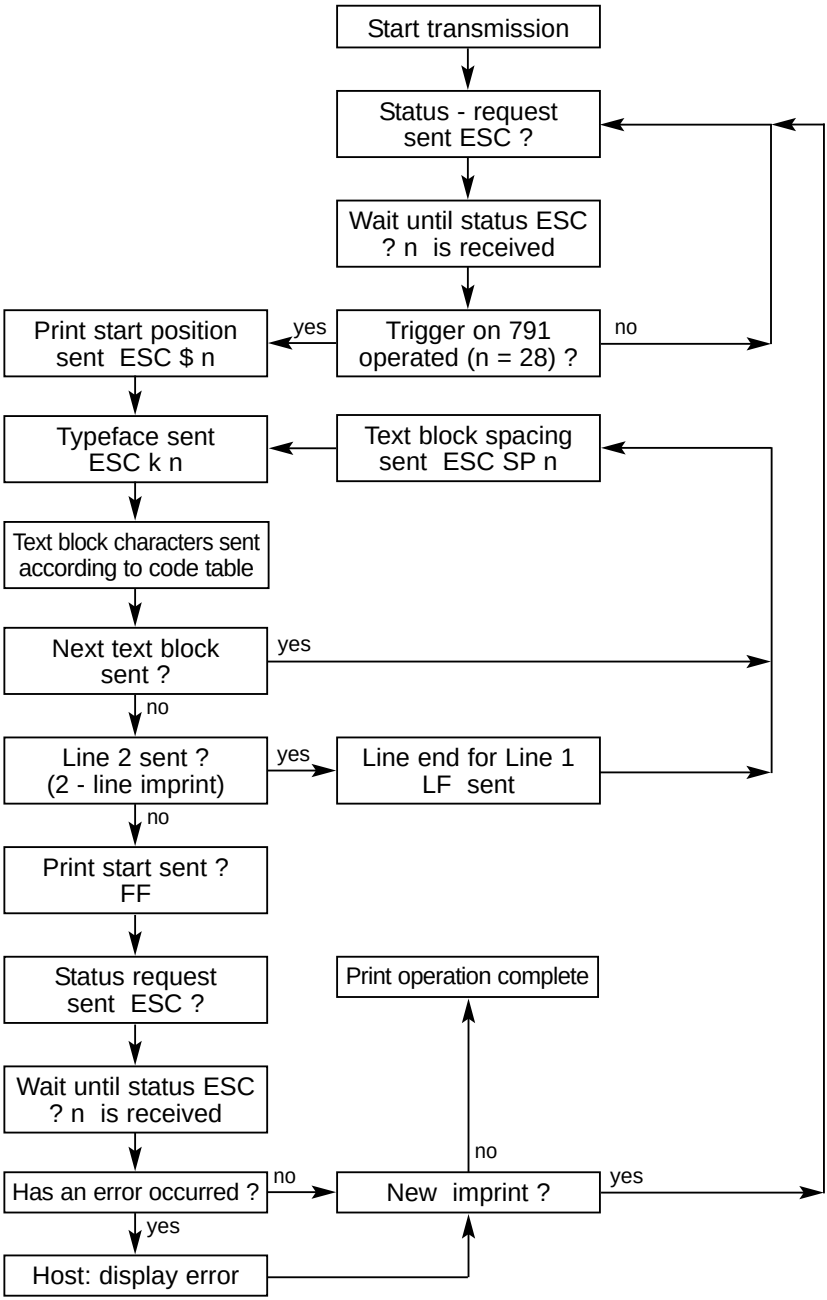
Flow chart - data transmission

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) Imprint : "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)
```

Note

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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