

Printer





Versatility and Competence

Hengstler today. Hengstler is a leading European manufacturer of industrial components for counting and control applications, such as counters, encoders, industrial and temperature controllers, relays as well as printers and cutters.

Founded in 1846, Hengstler belongs to the American Danaher Group with its headquarter in Washington since 1995. Danaher with an turnover over 6 Bill. US\$ is growing fast and one of the most successful companies worldwide.

As a result of our very specific and diversified know-how and experience, printer system solutions have become our particular strength. Kiosk systems, automatic ticket dispensers, as well as applications in the fields of banking, industry and commerce, use needle (impact) printers and thermal printers supplied by Hengstler. Print widths range from 2 to 8.5 inches and paper weights from 55 to 280 g/m². The printer program is supported by a range of useful accessories, such as winding/retracting units and cutters.

Our components and systems solutions are focused on quality, reliability and safety, added by a high level of user convenience and service-friendliness: from exchanging paper rolls to obtaining and hand-ling the right types of ink ribbon cartridges. Another extra: everything is maintenance-free.



YOU NEED SOLUTIONS FOR TOMORROW'S PRINTER TECHNOLOGY - TALK TO US!

Hengstler offers one of the largest ranges of direct thermal print mechanisms and dedicated solutions. For many applications in key market segments like banking, information kiosks, transportation. On the following pages you will find some examples of configurations and solutions, which are not exhaustive because the various print mechanisms, paper handling modules and chassis allow the creation of many customized variants.

APPLICATIONS

- Banking (e.g. receipt, journal and statement printing)
- Information Kiosks (e.g. in A4/US letter format)
- Transportation (e.g. heavy tickets up to 280 g/m²)
- Kiosk (e.g. receipt printing at 220 mm/sec)



The fundamentals of direct thermal printing

In the direct thermal printing a black and white image is created through the direct transfer of heat (thermal energy) to color forming elements contained within the paper. Bi-color thermal image is also possible. Therefore additional coating layers are necessary. The degree to which these color elements (leuco dyes, developers) react is precisely controlled by special melting point regulators. In this way various mono-color shades can be created according to the amount of energy transferred.

A thermal head in the thermal printer transfers the required amount of heat to the thermal paper. A thermal head consists of a multitude of miniature heating elements distributed along its printing width. Each heating element is electronically controlled to deliver the right amount of energy to the right place for the right amount of time. The individual dots thus created, together form the final image – text, graphs, barcodes, etc. A platen roll ensures contact of the thermal head and thermal paper ensuring optimum printing quality.

Source: Kanzan Spezialpapiere GmbH



ADVANTAGES

- Very high reliability
- Small, compact printing unit
- Easy handling in all applications
- Few moving parts and only one consumable (no toner, inks, ribbons, etc.)
- Low maintenance costs
- Low noise because non-impact printing
- High speed
- High functionality under different environmental conditions

Content

Sector	Applicatio	on Pro	duct	Page
Oil & Gas				
	receip			03
and the second second		PIX	111	03
Industry	receipt	ts C-56		
		PIXI	5	04
		PIA	11	03
Detail		PIXX	(0	03
Retail rev	erse wending	s C-56		-
		PIXI	II.	05
Transportation				03
mansportation	infokiosks			05
		Prim		
		Print	1.10	06
		DIVI	11	04
		PIXI		03
		PIXX	0	03
A March A		TPM	the second se	06
mobile/statio	nary ticketing	Printo		
		TPM 8		04
and the features		1PM d	30 0	6
mobile/statio	onary receipts	C-56	0	6
	a service and the service of the ser	PIXI II	and the second se	
		PIXXO		3
		TPM 8		-
	15 2 6 X	IPM 0	0 0	6
pa	arking tickets	Printo		
	- 1. Contraction of the second	TPM 8		
Dar	And the second second		0 00	,
par	king-receipts	C-56	06	
		PIXI II	03	
		PIXXO	03	
bo	arding pass			
	a state of the second	TPM 80	0 06	
rec	ceipts (ATM)	Prima*	03	
		Printo*		
		PIXI II	04	
low			03	
Jou	mals (ATM)	Prima*	04	
	F	Printo*		
	F	PIXI II	04	
			03	
		PM 200	0 06	
thers cine	ema tickets P	rinto*		
		PM 80	04	
ante			06	
entr	ance cards P	rinto*	04	
	T	PM 8o	04	
receipts/d	and the second se		00	
		PM 100	06	
	11	PM 150	06	

Receipt printer



THERMAL RECEIPT PRINTER C-56

Technical data

PRINT MECHANISM

Paper width	58 - 60 mm
Print width	56 mm
Resolution	203 dpi = 8 dots/mm
Print speed	up to 220 mm/sec
Paper weight	55 - 65 g/m²
Paper capacity	100 mm (4 inches) roll diameter

Cutter

patented tear bar design, vandal resistant

CONTROLLER

Interface USB 1.1 / RS 232

Barcodes

UPC-A, UPC-E, EAN-13, EAN-8, Code 39, Interleaved 2 of 5, Code 128, Codabar (internally generated)

Graphic driver Windows 98/NT/2000/XP/Linux

Print buffer

internal chip 16 KB, 4 MB on board

COMPLETE UNIT

Operating voltage 24 VDC +/- 5%

Power consumption 3 A max.

Temperature range -30°C to +70°C (operating)

SERVICE LIFE

Printer	100 km of paper
Tear off bar	min. 1 million cuts

FIELDS OF APPLICATION

Kiosk terminals, ATMs, Gas Pumps, Reverse Vending Systems



PIXXO THERMAL RECEIPT PRINTER

Technical data

PRINT MECHANISM

Paper width	60/82.5/114 mm
Print width	56/80/104 mm
Resolution	203 dpi = 8 dots/mm
Print speed	100 mm/sec
Paper weight	80 - 120 g/m²
Paper capacity	230 mm for 80 g/m² paper
Cutter	full cut and partial cut
CONTROLLER	
Interface	parallel Centronics bi-directional
Print buffer	64 KB
Emulation	GDI – Graphics Device Interface
Control in graphics mode 95/98/2000/NT 4.0	only Windows drivers

COMPLETE UNIT

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Operating voltage 24 VDC +/- 5%
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Power consumption 3.5 A, max. 10 A (short-term)

SERVICE LIFE

Printer

100 km paper length at a density of 25%Cutter1 million cuts

OPTIONS

Paper capacity vertical, horizontal, vertical to horizontal

FIELDS OF APPLICATION

Kiosk terminals, ATMs, ticket dispensers



PIXI II THERMAL RECEIPT PRINTER

Technical data

PRINT MECHANIS	Λ
Paper width	58/82.5 mm
Print width	56/80 mm
Resolution	203 dpi = 8 dots/mm
Print speed	60 mm/sec
Paper weight	60 - 100 g/m²
Paper capacity	100 mm for 60 g/m² paper
Cutter	full cut and partial cut
CONTROLLER	
Interface	serial RS 232 and parallel Centronics
Print buffer	32 KB
Character set	IBM – character set 2, in four sizes
Emulation	partially similar to EPSON LQ 850
Drivers	

Windows 95/98/2000/NT 4.0

COMPLETE UNIT

Operating voltage 24 VDC +/- 5% **Power consumption** 2 A

SERVICE LIFE

Printer

50 km paper length at a density of 25% Cutter 1 million cuts

OPTIONS

Paper capacity

with external paper holder (provided by customer), paper roll length up to 500 m at 60 g/m^2

FIELDS OF APPLICATION

Kiosk terminals, ATMs, parking systems



PRIMA THERMAL RECEIPT PRINTER

Technical data

PRINT MECHANISM

Paper width	80 mm
Print width	76 mm
Resolution	203 dpi = 8 dots/mm
Print speed	50 mm/sec
Paper weight	60 - 90 g/m²
Paper capacity	180 or 260 mm roll diameter
Cutter	full cut
Presenter	

paper buffer of 70 - 210 mm paper length

CONTROLLER

Interface	serial RS 232
Print buffer	8 KB
Character set	IBM – character set 2, in 4 sizes

COMPLETE UNIT

Operating voltage 24 VDC ⁺/- 5% **Power consumption** 2 - 3.5 A

SERVICE LIFE

Printer							
50 km	paper	length	at a	density	of	12.5	%
Cutter		1	mill	ion cuts			

FIELDS OF APPLICATION

Kiosk terminals, ATMs



PRINTO RECEIPT PRINTER (DOT MATRIX PRINTER)

Technical data

PRINT MECHANISM

Paper width	70/78/82.5 mm
Print width	65.7 mm for 200 dots
Resolution	0.33 mm horizontal 0.353 mm vertical
Print speed	3.2 lines/sec bi-directional
Paper weight	60 - 90 g/m²
Paper capacity	180 or 260 mm roll diameter
Cutter	full cut
Presenter Paper buffer of 70	- 210 mm paper length
	- 210 mm paper length
Paper buffer of 70	- 210 mm paper length serial RS 232
Paper buffer of 70	
Paper buffer of 70 CONTROLLER Interface	serial RS 232
Paper buffer of 70 CONTROLLER Interface Print buffer	serial RS 232 2 KB

Operating voltage 24 VDC ⁺/· **Power consumption** 1.8 - 4 A

SERVICE LIFE

Printer	200 million characters
Cutter	1 million cuts

FIELDS OF APPLICATION

Kiosk terminals, ATMs

Journal printer







PIXI II THERMAL JOURNAL PRINTER

Technical data

PRINT MECHANISM

Paper width	58 mm
Print width	56 mm
Resolution	203 dpi = 8 dots/mm
Print speed	60 mm/sec
Paper weight	60 - 100 g/m²
Paper capacity	40 mm for 60 g/m² paper

Winder integrated functional unit

CONTROLLER

Interface	serial RS 232 or parallel Centronics
Print buffer	32 KB
Character set	IBM – character set 2, in 4 sizes
Emulation	partially similar to EPSON LQ 850

COMPLETE UNIT

Operating voltage 24 VDC ⁺/- 5% **Power consumption** 2 A

SERVICE LIFE

Printer

50 km paper length at a density of 25%

FIELDS OF APPLICATION

Kiosk terminals, ATMs



PRIMA THERMAL JOURNAL PRINTER

Technical data

PRINT MECHANISM

Paper width	76.2 mm
Print width	72 mm
Resolution	203 dpi = 8 dots/mm
Print speed	50 mm/sec
Paper weight	55 - 78 g/m²
Paper capacity	up to 80 mm roll diameter
Winder integrated function	anal unit motorized

integrated functional unit, motorized

CONTROLLER

Interface	serial RS 232
Character set	downloadable
Emulation	GDI (corresponds to ND 71-Emulation)

COMPLETE UNIT

Operating voltage 24 VDC ^{+/-} 5% **Power consumption** 2.1 A

SERVICE LIFE

Printer

50 km paper length at a density of 12.5%

FIELDS OF APPLICATION

Automatic cash registers, ATMs, Transaction printing



PRINTO JOURNAL PRINTER (DOT MATRIX PRINTER)

Technical data

PRINT MECHANISM	۸
Print Head	9 pins
Paper width	76.2 mm
Print width	65.7 mm
Resolution	0.33 mm horizontal 0.353 mm vertical
Print speed	180 cps
Paper weight	55 - 78 g/m²
Paper capacity	60 m
Winder integrated function	al unit, motorized
CONTROLLER	
Interface	serial RS 232
Character set	downloadable
Emulation	partially similar to EPSON LQ 850

COMPLETE UNIT

Operating voltage 24 VDC ⁺/- 5% **Power consumption** 1.8 A, max. 4 A

SERVICE LIFE

FIELDS OF APPLICATION

Automatic cash registers, ATMs, Transaction printing

Ticket printer



TPM 80 FOR STATIONARY AND MOBILE TICKET DISPENSERS

- TPM 80 Thermal Printer with integrated cutter and dual feed module
- Print speed up to 100 mm/sec
- Compact Design for mobile usage
- Barcode Scanner (optional)
- Min. ticket length 20 mm
- Control of two paper rolls (in horizontal and vertical position)
- Paper Management for paper rolls up to 150 mm diameter



TPM 80 FOR STATIONARY TICKET DISPENSERS

- TPM 80 Thermal Printer with integrated cutter and dual feed module
- Barcode Scanner (optional)
- Print speed up to 100 mm/sec
- Control of two paper rolls (in vertical position)
- Min. ticket length 20 mm
- Paper Management for two large paper rolls up to 300 mm diameter



TTPM 80 WITH UNIQUE TRIPLE PAPER FEED UNIT + INTEGRATED CUTTER

Technical data

Triple Feeder

three independent paper paths: two large ticket rolls and one for receipt printing

Dimensions of the	Tickets
Width:	Adjustable by stepper
	motor
	Default width 30/54/
	82.5 mm
Length:	Adjustable
	min. 30 mm
Paper Weight	80 - 280 g/m ²
OPTIONS	
MC Encoder	

read and write System	
Track Width	writing 7.06 mm, reading 2.05 mm
Magnetic Tracks	ISO Track 2/ISO Track 3
Edmonson Format	centered Track Position
Coding density	30 bpi to 210 bpi

ANWENDUNGEN

Ticketing with magnetic stripe processing



PRINTO TICKET PRINTER (DOT MATRIX PRINTER) WITH INTEGRATED CUTTER

Technical data

PRINT MECHANISM	1
Paper width	adjustable from 50 to 90 mm
Print width	max. 84.4 mm
Resolution	0.33 mm horizontal 0.353 mm vertical
Print speed	3.2 lines/sec bi-directional
Paper weight	60 - 200 g/m²
Paper pre-loading	provided by customer
Cutter	full cut
CONTROLLER	
Interface	serial RS 232 and parallel Centronics
Print buffer	2 KB
Character set	IBM – character set 2
Emulation	partially similar to EPSON FX 80
COMPLETE UNIT	

Operating voltage 24 VDC ^{+/-} 5% **Power consumption** max. 3.5 A

SERVICE LIFE

Printer	100 million characters
Cutter	0.5 million cuts

FIELDS OF APPLICATION

Automatic ticket dispensers for mobile and stationary use, kiosk terminals, ATMs

Kiosk printer



TPM 80 WITH LOOP PRESENTER ON SYSTEM CHASSIS

- Thermal printer with integrated cutter
- Loop presenter
- Print speed up to 120 mm/sec
- Paper roll up to 250 mm diameter
- Open frame design
- System chassis also suitable for TPM 100



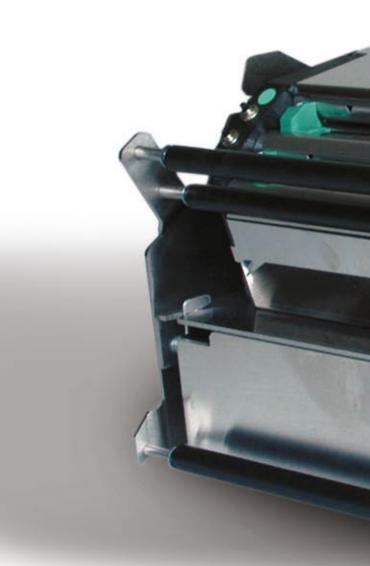
TPM 200 WITH LOOP PRESENTER ON SYSTEM CHASSIS

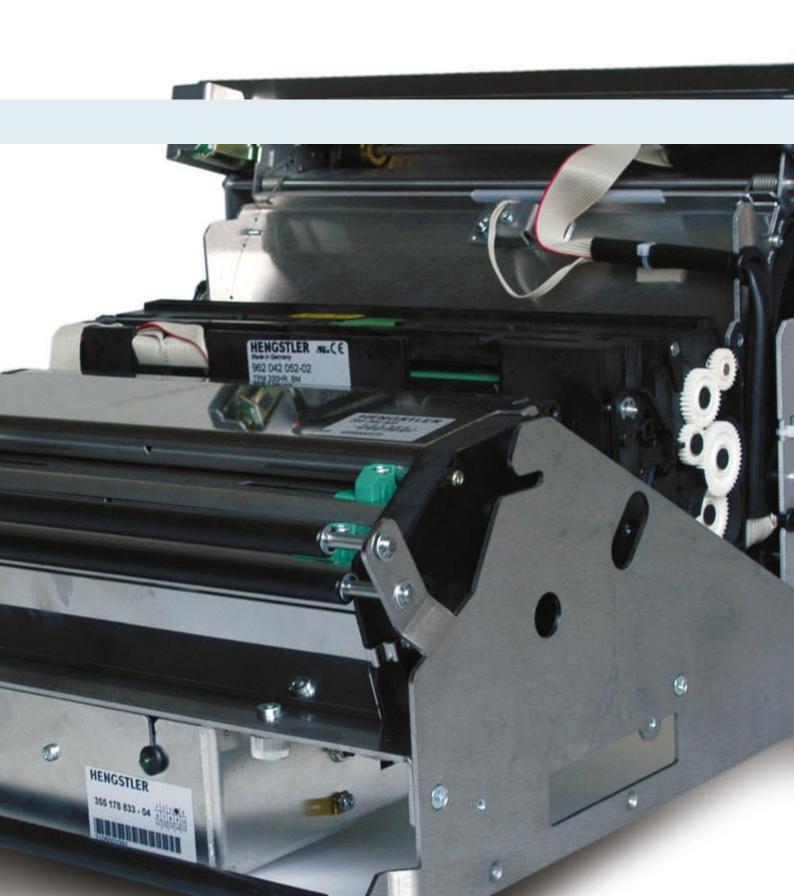
- Thermal print module with integrated cutter and loop presenter
- Print speed up to 50 mm/sec
- For paper roll up to 250 mm diameter
- Open frame design
- System chassis also suitable for TPM 150



TPM 200HR WITH SINGLE/DUAL FEED, PRESENTER WITH RETRACT ON CHASSIS

- Thermal printer with integrated cutter and 300 dpi print resolution
- Presenter with retract
- Single/dual feeder for large fanfold paper stock
- Paper width 140 216 mm
- Paper weight 65 to 120 g/m²





Banking printer



TPM 200 WITH BUNDLER AND DOCUMENT RETRACT, "METIS"

- Thermal print mechanism with 203 dpi resolution and integrated cutter
- Bundling unit for up to 10 sheets; min.- max. sheet length 99 - 300 mm
- Single/dual feeder for paper rolls up to 300 mm diameter or fanfold paper
- Paper width 140 216 mm
- Paper weight 65 to 120 g/m²
- Adjustable paper low sensor and paper end sensor
- Horizontal paper output



TPM 200HR WITH BUNDLER, SHUTTER AND DOCUMENT RETRACT, "PLUTO"

- Thermal print mechanism with 300 dpi resolution and integrated cutter
- Bundling unit for up to 10 sheets; min.- max. sheet length 99 - 300 mm
- Single/dual feeder for paper rolls up to 300 mm diameter and fanfold paper
- Paper width 140 216 mm
- Paper weight 65 to 120 g/m²
- Adjustable paper low sensor and paper end sensor
- Vertical paper output slot with shutter



Print mechanism



TPM 80 WITH INTEGRATED CUTTER



Print width	80 mm
Resolution	203 dpi
Print speed	up to 100 mm/sec
Head lifetime electrical: 100 milli abrasion: 100 km p	
Printer lifetime	50.000 h
Paper specification paper weight: 80 - paper width: 86 m	0,
Cutter lifetime 1 million cuts min.	with 80 g/m² paper
Environment temperature: humidity:	operation +5 °C to +45 °C 20% - 80%
Power	24 VDC ⁺ /- 10%
Graphics full graphics 640 do	ots per line
Dimensions W 141 x H 101.5 x I	D 93 mm
OPTIONS	

Loop presenter, dual paper feed, triple paper feed, memory extension, format control

FIELDS OF APPLICATION

Ticketing, Coupons, Receipts



TPM 100 WITH INTEGRATED CUTTER

Technical data

Print width	104 mm
Resolution	203 dpi
Print speed	up to 100 mm/sec
Head lifetime electrical: 50 millic abrasion: 50 km p	
Printer lifetime	
Paper specification	-
paper weight: 80 - paper width: 112 m	
Cutter lifetime 1 million cuts min.	with 80 g/m² paper
Environment	operation
temperature: humidity:	+5 °C to +45 °C 20% to 80%
Power	24 VDC */- 10%
Graphics full graphics 832 de	ots per line
Dimensions W 170 x H 101.5 x	D 93 mm
OPTIONS	

Loop presenter, dual paper feed, memory extension, format control

FIELDS OF APPLICATION

Ticketing, Coupons, Receipts



TPM 150 WITH INTEGRATED CUTTER

Technical data

Print width	144 mm
Resolution	203 dpi
Print speed	up to 100 mm/sec
Head lifetime electrical: 50 mil abrasion: 50 km	
Printer lifetime	50.000 h
Paper specification paper weight: 800 paper width: 1560	o - 120 g/m²
Cutter lifetime 1 million cuts mir	n. with 80 g/m² paper
Environment temperature: humidity:	operation +5 °C to +45 °C 20% to 80%
Power	24 VDC +/- 10%
Graphics full graphics 1152	e dots per line
Dimensions W 287 x H 103.5	x D 101.5 mm
OPTIONS	
Loop proceptor	dual manay food manage

Loop presenter, dual paper feed, memory extension, format control

FIELDS OF APPLICATION

Information Kiosks, Banking



TPM 200/200HR WITH INTEGRATED CUTTER

Technical data

Print width	216 mm
Resolution	203 dpi or 300 dpi
Print speed	up to 60 mm/sec
Head lifetime electrical: 100 m abrasion: 100 ki	nillion dot pulses m paper length
Printer lifetime	50.000 h
Paper specificati paper weight: 8 paper width: 22	0 - 120 g/m²
Cutter lifetime 1 million cuts mi	n. with 80 g/m² paper
Environment Temperature: Humidity:	Operation +5 °C to +45 °C 20% to 80%
Power	24 VDC +/- 10%

Graphics

full graphics 1728 or 2592 dots per line

Dimensions W 287 x H 103.5 x D 101.5 mm

OPTIONS

Loop presenter with or without retract, bundler for up to 10 sheets, dual paper feed, memory extension, format control

FIELDS OF APPLICATION

Ticketing, Information Kiosks, Transportation, Banking

Cutters

685.0 CUTTER G





685.56 CUTTER D

685.70 CUTTER F

	Paper width	64 mm - 120 mm	Paper width	60 mm - 500 mm
	Max. paper weight	300 g/m²	Max. paper weight	400 g/m ²
	Operating voltage	DC 12 V / DC 24 V	Operating voltage	DC 24 V
	Type of cut	full cut	Type of cut	full cut
	Cutting speed	800 ms	Cutting speed	800 ms
	Number of cuts	1 million cuts with 200 g/m² paper	Number of cuts	0.5 million cuts with 250 g/m² paper

Paper width	63 mm/90 mm/118 mm
Max. paper weight	120 g/m²
Operating voltage	DC 12 V / DC 24 V
Type of cut	full cut and partial cut
Cutting speed	400 ms
Number of cuts	1 million cuts with 120 g/m² paper









685.72 CUTTER F

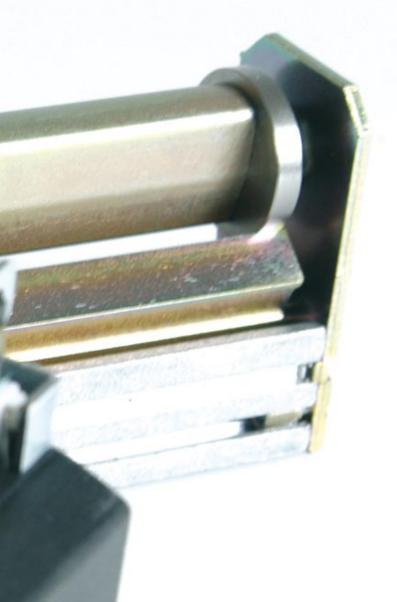
Paper width	63 mm/90 mm/118 mm
Max. paper weight	170 g/m²
Operating voltage	DC 12 V / DC 24 V
Type of cut	full cut
Cutting speed	400 ms
Number of cuts	0.5 million cuts with 170 g/m² paper

685.2 CUTTER H (SUCCESSOR FOR CUTTER C 685.5)

Paper width	63 mm - 222 mm
Max. paper weight	200 g/m²
Operating voltage	DC 12 V / DC 24 V
Type of cut	full cut and partial cut
Cutting speed	800 ms
Number of cuts	0.5 million cuts with 200 g/m² paper, paper width 64 mm

685.74 CUTTER L (LINERLESS)

Paper width	63 mm/90 mm/118 mm
Max. paper weight	98 g/m²
Operating voltage	DC 12 V / DC 24 V
Type of cut	full cut
Cutting speed	400 ms
Number of cuts	1 million cuts with 100 g/m² paper







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