MINI PRINTER

CITIZEN®

Japan CBM Corporation

PRODUCTS GUIDE
1999

CITIZEN PRINTERS —
built with all the features and specifications required to satisfy the toughest jobs.

No matter what the application is, Citizen has a printer to meet your most demanding needs.

With a complete line of POS Printers and OEM mechanisms to choose from,

Citizen makes it easy for you to find the right printer for the right job.
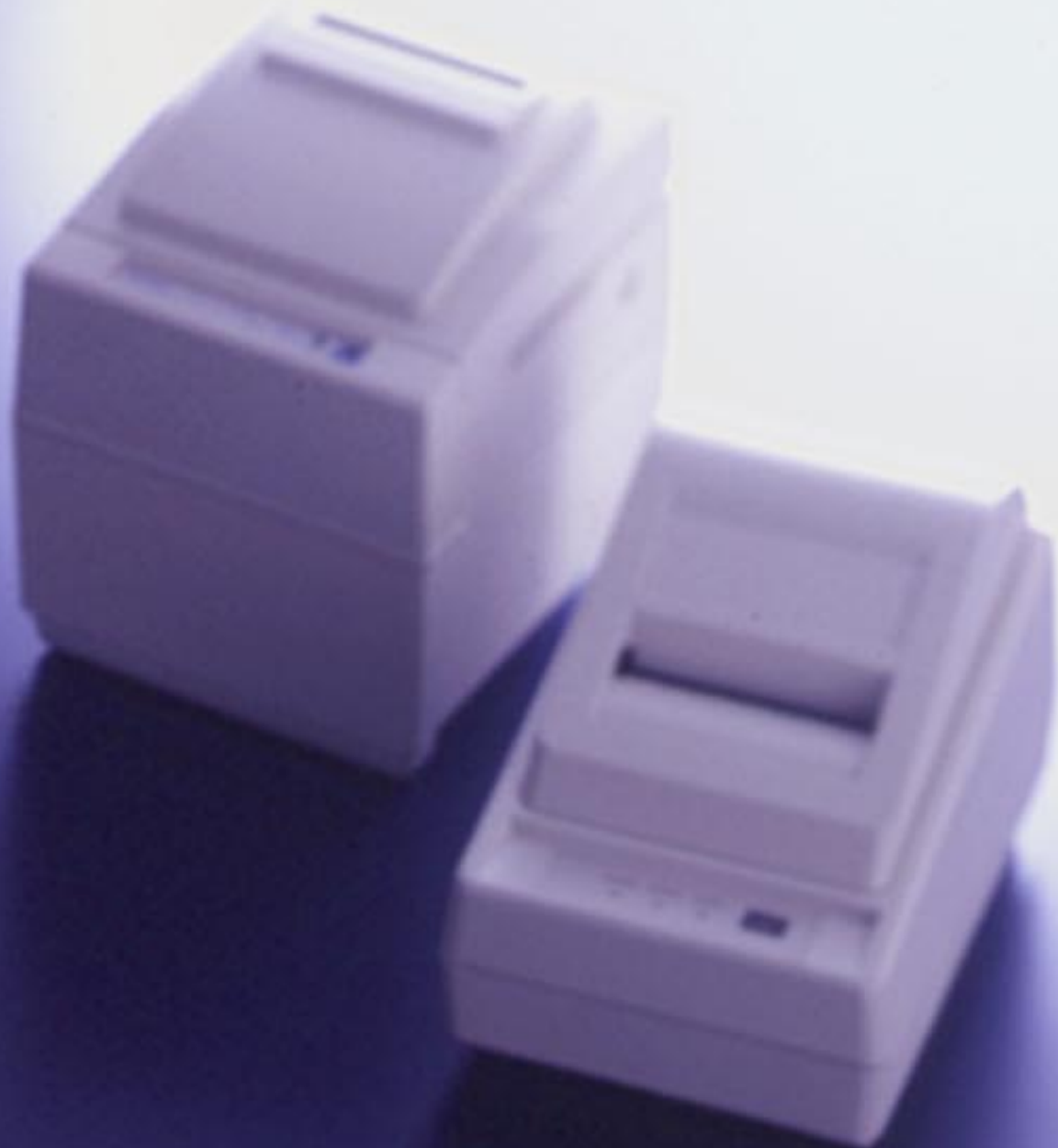
Select from one of the industry's widest varieties of dot matrix and thermal printers with standard

features like semi-automatic paper loading, compact design, and high-speed performance.

Not to mention a range of options that include winders, auto cutters, and multicolor ribbons.

When it comes to quality, reliability and long lasting value you know you can depend on Citizen.

All Citizen products are backed by the resources and reputation of

a worldwide leader in POS printers and OEM mechanisms.

C O N T E N T S

COMPLETE PRINTERS

LINE THERMAL PRINTERS

IMPACT PRINTERS

KIOSK PRINTER

PRINTER MECHANISMS

LINE THERMAL PRINTER MECHANISMS

IMPACT PRINTER MECHANISMS

ACCESSORIES/OPTIONS

CBM-230/231/232/233

Paper roll
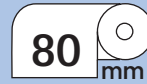
80 mm

Features

- Compact design
- High-speed line thermal printing
- Automatic paper loading
- Bar-code printing
- Cash drawer kick out
- Compatibility (ESC/POS)
- Auto cutter available (CBM-231/233)
- Separate power supply (CBM-232/233)

CBM-230/232

Applications

- Receipt
- Coupon
- Ticket
- Daily report
- Kitchen
- Delivery
- Bar-code

CBM-231/233

Mechanism

LT-380

Type Classification

CBM-231 R F 230
　　　① ②③ ④

①**Model type**
- 230: No auto cutter model
- 231: Standard model
- 232: No auto cutter/ external power supply
- 233: Auto cutter/ external power supply

②**Interface**
- P: Parallel
- R: Serial RS-232C

③**Character set**
- F: International
- J: Japanese

④**Power source**
- 100: 100 V
- 120: 120 V
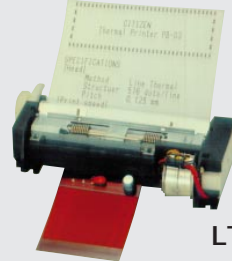- 230: 230 V

Further Information

Mechanism

LT-380
➜**23P**

Control Chip

Gate Arrary 202LA
➜**32P**

Auto Cutter

AC-130
ACS-230
➜**33P**

Specifications

Model	CBM-230	CBM-231	CBM-232	CBM-233
Printing method	Line thermal dot printing			
Printing width	72mm, 576 dots			
Printing speed	Max. 62.5mm/sec., 500 dot-line/sec.			
No. of columns	Font A: 44 columns (42 columns by special EPROM) Font B: 64 columns (56 columns by special EPROM)			
Character size (W × H)	Font A: 1.25 × 3.00mm (12 × 24 dots) / Font B: 0.88 × 2.13mm (9 × 17 dots)			
Dot pitch	8 dots/mm (Horizontal/Vertical)			
Bar-code type	UPC-A/E, JAN-13/8, Code 39, ITF, CODABAR, Code 128			
Line spacing	4.23mm (1/6 inch), can be set by a command (Min. 1/203 inch)			
Paper	Thermal paper roll, 80mm × ø83mm			
Interface	Parallel: Centronics / Serial: RS-232C			
Input buffer	4K bytes			
Power supply	120V AC±10%, 60Hz 230V AC±10%, 50 or 60Hz		AC adapter	
AC adapter	—		Input: AC 100-240V, 50/60Hz, 120VA Output: DC 24V, 1.8A	
Weight	1.70kg	1.85kg	Main unit: 1.2kg (232), 1.3kg (233) AC adapter: 0.45kg	
External dimensions (W × D × H)	145 × 216 × 150mm		Main unit: 145 × 216 × 130mm	
Operating temp. range	5 ~ 40°C			
Storage temp. range	−20 ~ 60°C			
Reliability	Head: 50,000,000 pulses or 30km Cutter: 300,000 cuts (231)		Head: 50,000,000 pulses or 30km Cutter: 500,000 cuts (233)	

C O M P L E T E   P R I N T E R S

CBM-253

Paper roll

60 mm

Features

- Compact design
- High-speed line thermal printing
- Label printing
- Bar-code printing
- Cash drawer kick out
- Compatibility (ESC/POS)
- Rotary cutter

CBM-253 R F 230
① ② ③ ④

①**Model type**
253: Label printer
②**Interface**
P: Parallel
R: Serial RS-232C
③**Character set**
F: International
J: Japanese
④**Power source**
100: 100 V
120: 120 V
230: 230 V

Applications

- Label
- Delivery
- Bar-code
- Receipt
- Coupon
- Ticket
- Daily report
- Kitchen

CBM-253

Mechanism

LT-280

Further Information

Mechanism

LT-280
➜**24P**

Control Chip

Gate Array
202LA
➜**32P**

Auto Cutter

AC-7
➜**33P**

Specifications

Model	CBM-253
Printing method	Line thermal dot printing
Printing width	56mm. 448 dots (Thermal paper)
	53mm, 424 dots (Thermal label paper)
Printing speed	Max. 50mm/sec., 400 dot-line/sec. (11 lines/sec.)
No. of columns	37 columns (Font A/Thermal paper)
	35 columns (Font A/Thermal label paper)
	49 columns (Font B/Thermal paper)
	47 columns (Font B/Thermal label paper)
Character size (W × H)	1.25 × 3.0mm (Font A = 12 × 24 dots)
	0.88 × 2.13mm (Font B = 9 × 17 dots)
Dot pitch	8 dots/mm (Horizontal/Vertical)
Bar-code type	UPC-A/E, JAN-13/8, Code 39, ITF, CODABAR, Code 128
Line spacing	4.23mm (1/6 inch), can be set by a command (Min. 1/203 inch)
Paper	Thermal paper roll, 60mm × ø83mm
Interface	Parallel: Centronics
	Serial: RS-232C
Input buffer	4K bytes
Power supply	120V AC±10%, 50/60Hz
	230V AC±10%, 50/60Hz
Weight	2.2kg
External dimensions (W × D × H)	140 × 240 × 151.5mm
Operating temp. range	5 ~ 40°C
Storage temp. range	−10 ~ 40°C
Reliability	Head: 50 million pulses or 30km
	Cutter: 500,000 cuts

C O M P L E T E   P R I N T E R S
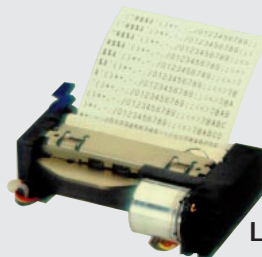
CBM-262

Paper roll

58 mm

Features

- ■ Two station printing
  (Receipt and journal with paper winder)
- ■ High-speed line thermal printing
- ■ Automatic paper loading
- ■ Bar-code printing
- ■ Cash drawer kick out
- ■ Compatibility (ESC/POS)
- ■ Auto cutter (Receipt only)
- ■ Separate power supply

CBM-262

Applications

- ●Receipt
- ●Journal
- ●Coupon
- ●Ticket
- ●Daily report
- ●Kitchen
- ●Delivery
- ●Bar-code

Type Classification

CBM-**262** **R** **F** **230**
     ① ②③ ④

①**Model type**
  262: Tandem 2 station
          printer
②**Interface**
  P: Parallel
  R: Serial RS-232C
③**Character set**
  F: International
  J: Japanese
④**Power source**
  100: 100 V
  120: 120 V
  230: 230 V

Mechanism

LT-283

Further Information

Mechanism

LT-283
➜**22P**

Auto Cutter

ACS-220
➜**33P**

Specifications

Model	CBM-262
Printing method	Line thermal dot printing
Printing width	54mm, 432 dots
Printing speed	Max. 62.5mm/sec., 500 dot-line/sec. (Approx. 19 lines/sec.)
No. of columns	Font A: 36 columns Font B: 42 columns
Character size (W × H)	Font A: 1.25 × 3.00mm (12 × 24 dots) Font B: 0.88 × 2.13mm (9 × 17 dots)
Dot pitch	8 dots/mm (Horizontal/Vertical)
Bar-code type	UPC-A/E, JAN-13/8, Code 39, ITF, CODABAR, Code 128
Line spacing	4.23mm (1/6 inch), can be set by a command (Min. 1/203 inch)
Paper	Thermal paper roll, 58mm × ø83mm
Interface	Parallel: Centronics Serial: RS-232C
Input buffer	4K bytes
Power supply voltage	Main unit: DC 24V
AC adapter	Input: AC 100-240V, 50/60Hz, 120V, Output: DC 24V, 1.8A
Weight	Main unit: 2.25kg, AC adapter: 0.4kg
External dimensions (W × D × H)	128 × 359.5 × 162.5mm
Operating temp. range	5 ~ 40°C
Storage temp. range	−10 ~ 60°C
Reliability	Head: 50,000,000 pulses or 100km Cutter: 500,000 cuts

C O M P L E T E   P R I N T E R S
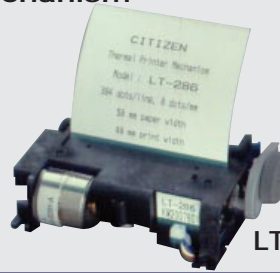
CBM-270

Paper roll

58 mm

Features

- Compact design
- Light weight (approx. 600g)
- Availability of wall mount
- Automatic paper loading
- Bar-code printing
- Compatibility of ESC/POS
- Paper near end sensor equipped
- Large input buffer (2K)
- Label printing (option)
- Black & red printing (option)
  (with special paper)

CBM-270

Applications

- POS
- Banking
- Medical equipment
- Coupon
- Ticket
- Daily report
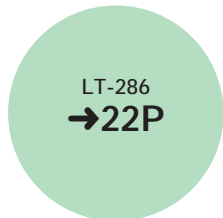- Delivery
- Bar-code

Type Classification

CBM-270 R F 230-N
          ①② ③ ④

①**Interface**
   R: Serial (RS-232C)
   P: Parallel
②**Character set**
   F: International
③**Power source**
   120: 120 V
   230: 230 V
④**Label Paper Print Function**
   N: None
   L: Label interval detection
   M: Black mark detection

Further Information

Mechanism

LT-286
➜**22P**

Control Chip

Gate Array 202LA
➜**32P**

Mechanism

LT-286

Specifications

Model	CBM-270
Printing method	Line thermal dot printing
Printing width	48mm (384 dots/line)
Printing speed	Max. 50mm/sec., 400 dot-line/sec. (11 lines/sec.)
No. of columns	Font A: 32 columns. Font B: 42 columns.
character size (W × H)	Font A: 1.25×3.00 mm (12×24 dots) Font B: 0.88×3.00 mm (9×24 dots)
Dot pitch	8 dots/mm
Bar-code type	UPC-A/E, JAN (EAN), ITF, CODABAR, CODE39, CODE128
Line spacing	4.23mm (1/6 inch), can be set by a command (Min. 1/203 inch)
Printing Paper	Thermal roll paper: $58 \times \varnothing83$mm (max.) Thickness: 60 ~ 75µm Thermal label paper: $58 \times \varnothing83$mm (max.) Thickness: 150µm Label width: 56mm (max.) Label length: 25mm/pc (min.)
Interface	Parallel: Centronics, Serial: RS-232C
Input buffer	2K bytes
Paper supply	DC 7.2V 2A (Peak 6A) or AC adapter AC 100-240V (27 AD)
Weight	Approx. 600g
External dimensions (W × D × H)	$106 \times 184 \times 110$mm
Reliability	Head: 50,000,000 pulses or 50km

COMPLETE PRINTERS

CBM-291/293

Paper roll **Paper roll**

58 mm **80** mm
CBM-291 CBM-293

CBM-291
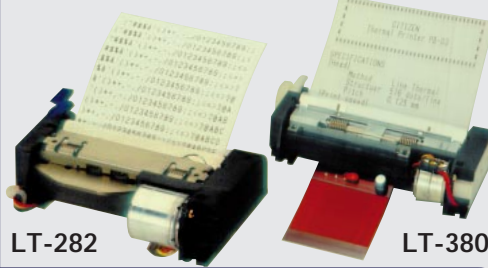
CBM-293
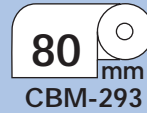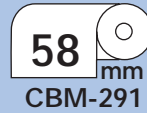
Features

- Compact design
- Panel mounting
- High speed line thermal printing
- Automatic paper loading
- Bar-code printing
- Compatibility (ESC/POS)
- Auto cutter
- DC 24V drive
- No auto cutter model available (290/292)

Applications

- Receipt
- Coupon
- Ticket
- Daily report
- Kiosk
- Kitchen
- Delivery
- Bar-code
- Industrial machine

Mechanism

LT-282 LT-380

Type Classification

CBM-291 R F
① ② ③

①**Model type**
291: Panel mount printer (58mm)
293: Panel mount printer (80mm)

②**Interface**
P: Parallel
R: Serial RS-232C

③**Character set**
F: International
J: Japanese

Further Information

Mechanism

LT-282
➜22P

LT-380
➜23P

Control Chip

CPU
202PC-03A
202PC-02A
Gate Arrray
202LA
➜32P

Auto Cutter

ACS-220
ACS-230
➜33P

Specifications

Model	CBM-291	CBM-293
Printing method	Line thermal dot printing	
Printing width	52mm, 416 dots	72mm, 576 dots
Printing speed	Max. 50mm/sec.	Max. 62.5mm/sec.
No. of columns	Font A: 34 columns	Font A: 48 columns
	Font B: 46 columns	Font B: 64 columns
Character size (W × H)	Font A: 1.25 × 3.00mm (12 × 24 dots)	
	Font B: 0.88 × 2.14mm (7 × 19 dots)	
Dot pitch	8 dots/mm (Horizontal and Vertical)	
Bar-code type	UPC-A/E, JAN-13/8, Code 39, ITF, CODABAR, Code 128	
Line spacing	4.23mm (1/6 inch), can be set by a command (Min. 1/203 inch)	
Paper	58 × Max. ø50mm	80 × Max. ø50mm
Interface	Parallel: Centronics	
	Serial: RS-232C	
Input buffer	4K bytes	
Power supply voltage	DC 5V and DC 24V	DC 24V
Weight	0.56kg	0.67kg
External dimensions (W × D × H)	106 × 109 × 99mm	126 × 109 × 99mm
Operating temp. range	5 ~ 40°C	
Storage temp. range	−20 ~ 60°C	
Reliability	Head: 50,000,000 pulses or 30km	
	Cutter: 300,000 cuts	

COMPLETE PRINTERS

iDP-3221

Paper roll

80 mm

Features

■ Compact design
■ High-speed line thermal printing
■ Easy paper loading (See below)
■ Bar-code printing
■ Cash drawer kick out
■ Compatibility (ESC/POS)
■ Auto cutter
■ Separate power supply
■ Page mode

iDP-3221

Applications

● Receipt
● Coupon
● Ticket
● Daily report
● Kitchen
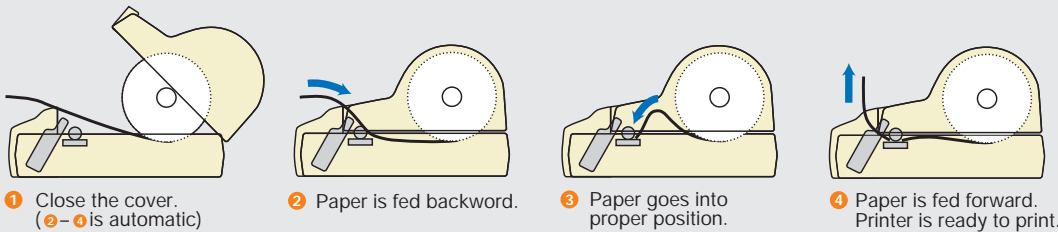● Delivery
● Bar-code

Type Classification

iDP-<u>3221</u> <u>R</u> <u>F</u> <u>230</u>
　　　① 　② ③ 　④

① **Model type**
　3221: Economy thermal printer
② **Interface**
　P: Parallel
　R: Serial RS-232C
③ **Character set**
　F: International
　J: Japanese
④ **Power source**
　100: 100 V
　120: 120 V
　230: 230 V

Further Information

Control Chip

Gate Arrary
202LA
➡32P

Auto Cutter

ACS-230
➡33P

Easy paper loading

❶ Close the cover.
(❷–❹is automatic)

❷ Paper is fed backword.

❸ Paper goes into proper position.

❹ Paper is fed forward. Printer is ready to print.

Specifications

Model	iDP-3221
Printing method	Line thermal dot printing
Printing width	72.19 mm / 512 dots
Printing speed	Max. 63.45mm/sec., 450 dot-line/sec.
No. of columns	Font A: 42 columns
	Font B: 56 columns
Character size (W × H)	Font A: 1.41 × 3.39mm (12 × 16 dots)
	Font B: 0.99 × 3.39mm (9 × 24 dots)
Dot pitch	7 dots/mm (Horizontal/Vertical), 180 DPI
Bar-code type	UPC-A/E, JAN-13/8, Code 39, ITF, CODABAR, Code 128
Line spacing	4.23mm (1/6 inch), can be set by a command (Min 1/156 inch)
Paper	Thermal paper roll, 80 × ø83mm
Interface	Parallel: Centronics
	Serial: RS-232C
Input buffer	4K bytes
Power supply voltage	Main unit: DC 24V
AC adapter	Input: AC 100-240V, 50/60Hz, 120VA, Output: DC 24V, 1.8A
Weight	Main unit: 1.3kg, AC adapter: 0.45kg
External dimensions (W × D × H)	152 × 201 × 123mm
Operating temp. range	5 ~ 40°C
Storage temp. range	−20 ~ 60°C
Reliability	Head: 50,000,000 pulses or 50km
	Cutter: 500,000 cuts

COMPLETE PRINTERS

iDP-3110/3111/CBM-910/920

Paper roll
58 mm

iDP-3110/3111

CBM-910

CBM-920

Features

■ Palm size and Light weight
■ High speed printing
■ Bit image graphics printing
■ 2K bytes memory buffer (CBM-910/920)
■ Paper end sensor (CBM-910)
■ Compatibility with CBM-700 series
  and iDP-3540 series (CBM-910/920)
■ Rechargeable internal battery (iDP-3111)
■ Panel mount (CBM-920)
■ Paper auto loading (CBM-920)

Applications

● Receipt ● Ticket ● Credit/Debit
● Daily report ● Kitchen ● Delivery
● Portable (iDP-3111)
● Industrial machine (CBM-920)

Accessories

● Ink ribbon IR-91

Mechanism

MD-910/911

Specifications

Model	iDP-3110	iDP-3111	CBM-910	CBM-920
Printing method	Serial dot impact			
Printing direction	Left to right			
Font	5 × 8 matrix			
No. of columns	24/40 columns			
Printing speed	24 col = 2.5 lines/sec. 40 col = 1.8 lines/sec.			
Character size (W × H)	24 col = 1.62 × 2.4mm 40 col = 1.08 × 2.4mm			
Line spacing	Character = 3.52mm / Graphic = 2.4mm			
Character pitch	24 col = 1.98mm / 40 col = 1.19mm			
Line feed speed	5.0 lines/sec.			
Paper width	57.5mm			
Interface	Parallel: Centronics, Serial: RS-232C			
Input buffer	1 line		2K bytes	
Paper end sensor	None		Equipped	
Ink ribbon	Purple, Cassette			
Power supply	AC 100/120/230V DC 7V	Rechargeable internal battery	AC 100/120/230V DC 7V	DC 5V only
Power consumption	7VA			
Weight	0.4kg			
External dimensions (W × D × H)	106 × 180 × 88mm			115 × 119 × 65mm
Operating temp. range	5 ~ 35°C			
Storage temp. range	–20 ~ 60°C			
Reliability	MCBF 1.0 million lines (40 columns)			

COMPLETE PRINTERS

iDP-3420/3421/3423

Paper roll

76 mm

iDP-3420

iDP-3421

iDP-3423

Features

■ Auto cutter available (iDP-3421/3423)
■ Auto winder available (iDP-3423)
■ 6K bytes memory buffer
■ Two color printing (Red/Black)
■ ESC/POS, Star emulation available
■ Paper auto loading

Applications

● Receipt
● Journal
● Ticket
● Credit/Debit
● Delay Report
● Kitchen
● Delivery

Accessories

● Ink ribbon IR-41

Mechanism

DP-400

Type Classification

iDP-3420 R F 230
　 ①　 ②③　 ④

① **Model type**
　3420: Standard model
　3421: With Auto Cutter
　3423: With Auto Cutter
　　　　 and Winder
② **Interface**
　CBM Mode
　　R: Serial RS-232C
　　P: Parallel
　STAR Mode
　　S: Serial RS-232C
　　C: Parallel
　ESC/POS Mode
　　T: Serial RS-232C
　　I: Parallel
③ **Character set**
　F: International
④ **Power source**
　120: 120 V
　230: 230 V

Further Information

Mechanism

DP-400
➜27P

Auto Cutter

ACS-230
➜33P

Specifications

Model	iDP-3420	iDP-3421	iDP-3423
Printing method	Serial dot impact		
Printing direction	Bidirectional		
Font	7 × 7 matrix		
No. of columns	40/42 columns (Selectable by Dip switch)		
Printing speed	Approx. 3.0 line/sec.		
Character size (W × H)	1.31 × 3.1mm		
Character set	Alphanumeric, International, Code page 437, 850, 860, 863, 865, 852, 866, 857, Windows code		
Line spacing	4.23mm (1/6 inch) or 2.82mm (1/9 inch) Min. 1.41mm(1/18inch)		
Paper	76mm Roll paper		
Interface	Parallel: Centronics, Serial: RS-232C		
Input buffer	6K bytes / 256 bytes		
Paper end sensor	Equipped		
Paper near end sensor	Equipped		
Paper cutter	None	Equipped	Equipped
Paper winder	None	None	Equipped
Cash drawer control	2 drawers		
Ink ribbon	Red/Black, or Black (CBM Ink ribbon cassette)		
Power supply	AC 100/120/230V		
Power consumption	30W (During printing)		
Weight	2.4kg	2.6kg	2.8kg
External dimensions (W × D × H)	164 × 248 × 140mm		164 × 280 × 183mm
Operating temp. range	0 ~ 40°C (35 ~ 85% RH)		
Storage temp. range	−20 ~ 60°C (10 ~ 90% RH)		
Reliability	Printer: MCBF 2.5 million lines Head: 80 million characters	Printer: MCBF 2.5 million lines Head: 80 million characters Cutter: 500,000 cuts	Printer: MCBF 2.5 million lines Head: 80 million characters Cutter: 500,000 cuts

COMPLETE PRINTERS

iDP-3550/3551

Paper roll | **Sproket**

76 mm **Ftype**

76~89 mm **Ptype**
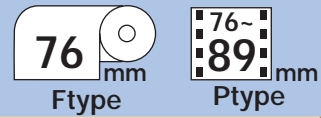
iDP-3550

iDP-3551

Features

- ■ Printing speed 3.6 lines/Sec.
- ■ Paper auto loading
- ■ CBM, IDP, ESC/POS, Star emulation
- ■ 6K memory buffer
- ■ Auto cutter available (iDP-3551)
- ■ Auto winder option (AW-3)
- ■ Cash drawer kick out (2 drawers)
- ■ Pinfeed version available (iDP-3550P)
- ■ Two color printing (red/black)

Applications

- ●Receipt
- ●Journal
- ●Ticket
- ●Label
- ●Credit/Debit
- ●Daily report
- ●Kitchen
- ●Delivery

Accessories

- ●Winder AW-3
- ●Paper basket 35PB-1
- ●Ink ribbon IR-61

Mechanism

DP-650

Specifications

Model	iDP-3550F	iDP-3550P	iDP-3551F
Printing method	Serial dot impact		
Printing direction	Bidirectional		
Font	7 × 7 matrix		
No. of columns	40 columns		
Printing speed	3.6 lines/sec.(DP-654), 3.0 lines/sec.(DP-657)		
Character size (W × H)	2.4 × 1.36mm(DP-654), 2.4 × 1.20mm(DP-657)		
Character set	Alphanumeric, International, Code page 437, 850, 860, 863, 865, 852, 866, 857, Windows code		
Line spacing	4.23mm, 1/6"(DP-654), 2.82mm(DP-657)		
Character pitch	1.59mm(DP-654), 1.46mm(DP-657)		
Line feed speed	18 lines/sec.(DP-654), 15 lines(DP-657)		
Paper feed method	Friction	Sprocket	Friction
Paper	76mm roll paper	76 ~ 89mm fanfold paper	76mm roll paper
Interface	Parallel: Centronics, Serial: RS-232C		
Input buffer	6K bytes		
Paper end sensor	Equipped	None	Equipped
Paper cutter	None		Partial/Full cut
Paper winder	AW-3 (Option)	None	AW-3 (Option)
Cash drawer control	2 drawers		
Ink ribbon	Red/Black, Cassette		
Power supply	AC 100/120/230V		
Power consumption	30W		
Weight	2.8kg		3.0kg
External dimensions (W × D × H)	160 × 212 × 173mm		160 × 184 × 199.3mm
Operating temp. range	0 ~ 40°C		
Storage temp. range	−20 ~ 60°C		
Reliability	Printer: MCBF 4.0 million lines Head: 80 million characters		Printer: MCBF 4.0 million lines, Head: 80 million characters, Cutter: 500,000 cuts

C O M P L E T E   P R I N T E R S

iDP-460/562

Paper roll **Paper roll**
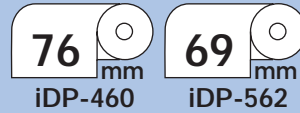
76 mm **69** mm
iDP-460 iDP-562

Features

■ High speed printing
■ High reliability
■ Metal tear bar
■ Two color printing
■ Compatible with most bankcard terminals
■ Mini DIN interface model (iDP-460)
■ Paper end sensor (iDP-460)
■ Automatic paper loading (iDP-460)
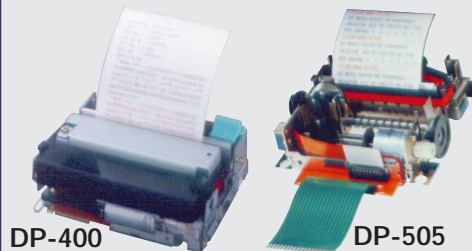■ Graphic model is available
   (G type, iDP-562)

iDP-460

iDP-562

Applications

●Receipt
●Ticket
●Credit/Debit
●Kitchen
●Delivery

Option

●Ink ribbon
   IR-41 (iDP-460),
   IR-51 (iDP-562)

Type Classification

iDP-460-RF 230 TYPE II D
   ①   ②   ③   ④   ⑤

①**Model type**
   562: Standard
   460: High speed printing
②**Interface**
   RS: Serial (iDP-562)
   RSL: Serial. Graphic
               (iDP-562)
   CN: Parallel (iDP-562)
   CNL: Parallel. Graphic
               (iDP-562)
   RF: Serial (iDP-460)
   PF: Parallel (iDP-460)
   VF: Serial. Mini DIN
           interface (iDP-460)
③**Power source**
   100: AC 100 V
   120: AC 120 V
   230: AC 230 V
④**ROM Type (iDP-562)**
   Type I: EP ROM
   Type II: Masked ROM
⑤**Drawer kick-out**
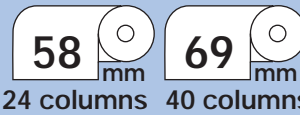   **connector**
   None: No connector
   D: With connector

Further Information

Mechanism

DP-400
➜27P
DP-505
➜28P

Mechanism

DP-400 **DP-505**

Specifications

Model	iDP-460	iDP-562
Printing method	Serial dot impact	Serial dot impact
Printing direction	Bidirectional	Left to right
Font	7×7 matrix	5×7 matrix
No. of columns	40/42 columns	40 columns
Printing speed	3.0 lines/sec.	1.6 lines/sec.
Character size (W $\times$ H)	1.31×2.4mm	1.25×2.75mm
Line spacing	4.23 or 2.82mm Min. 1.41mm	5.5mm
Character pitch	1.52mm	1.5mm
Line feed speed	30 lines/sec.	6.2 lines/sec.
Interface	Parallel: Centronics, Serial: RS-232C	Parallel: Centronics, Serial: RS-232C 20mA Current loop/TTL
Input buffer	250 bytes	1 line
Paper end sensor	Equipped	None
Cash drawer control	option (1 drawer)	None
Paper	76mm roll paper	69mm roll paper
Ink ribbon	Exclusive ink ribbon cartridge IR-41	Exclusive ink ribbon cartridge IR-51
Power supply	AC adapter AC 100/120/230	AC 100/120/230V
Power consumption	30W	35W
Weight	Main: 1.25kg AC adapter: 0.95kg	2.3kg
External dimensions (W $\times$ D $\times$ H)	$144 \times 233 \times 121$mm	$240 \times 231.5 \times 111.5$mm
Operating temp. range	0 ~ 40°C	5 ~ 40°C
Storage temp. range	−20 ~ 60°C	−20 ~ 70°C
Reliability	MCBF 2.5 million lines 80 million characters	MCBF 1.0 million lines 50 million characters

COMPLETE PRINTERS

CBM-510/520

Paper roll **Paper roll**

58 mm **69** mm
24 columns 40 columns

Features

■ Durable aluminium cabinet
■ Two color printing (red/black)
■ Panel mount design (CBM-520)

CBM-510

Applications | Accessories

●Receipt
●Ticket
●Credit/Debit
●Daily report
●Kitchen
●Delivery
●Industrial machine

●Ink ribbon
  IR-01

CBM-520

Mechanism

DP-505

Type Classification

CBM-510 L-40 P F 230-C M O
① ②③④⑤ ⑥ ⑦⑧⑨

①**Model type**
  510:Metal case printer
  520:Panel printer
②**Print direction**
  L: Left to right
  R:Right to left
③**Column capacity**
  24: 24 columns
  40: 40 columns
④**Interface**
  P:Parallel
  H:Handshake
  R:Serial RS-232C, TTL level, 20
    mA Current loop
⑤**Character set**
  F: International
  J: Japanese
⑥**Power source**
  12: DC 12 V
       (Case is option)
  100:AC 100 V
  120:AC 120 V
  220:AC 220 V
  240:AC 240 V
⑦**Mode**
  G:Graphic
  C:Character
⑧**ROM version**
  M:Masked ROM
  R:EPROM
⑨**Character direction**
  O:Normal
  A:Inverted

Further Information

Mechanism

DP-505
➜28P

Control Board

CBM-505
➜32P

Control Chip

PC-20
PC-2A
➜32P

Specifications

Model	CBM-510	CBM-520
Printing method	Serial dot impact	
Printing direction	L = Left to right / R = Right to left	
Font	5 × 7 matrix	
No. of columns	24/40 columns	
Printing speed	24 col = 1.9 lines/sec. / 40 col = 1.2 lines/sec.	
Character size (W × H)	24 col = 1.7 × 2.75mm / 40 col = 1.25 × 2.75mm	
Line spacing	Character = 5.5mm / Graphic = 2.75mm	
Character pitch	24 col = 2mm / 40 col = 1.5mm	
Line feed speed	8 lines/sec.	
Paper width	24 col = 57.5mm / 40 col = 69mm	
Interface	Parallel: Centronics, 8 bit hand shake Serial: RS-232C, 20mA Current loop/TTL	
Input buffer	1 line + 1 byte	
Paper end sensor	Option	
Ink ribbon	Red/Black, Spool	
Power supply	AC 100/120/220/240V / DC 12V	
Power consumption	20W	
Weight	3kg	
External dimensions (W × D × H)	197 × 240 × 74mm	150 × 149 × 199mm
Operating temp. range	5 ~ 40°C	
Storage temp. range	−20 ~ 70°C	
Reliability	Printer: 1.5 million lines Head: 36 million characters	

C O M P L E T E   P R I N T E R S

CBM-710/720/750

Paper roll

76 mm

CBM-710

CBM-720+AW-2

CBM-750

Features

■ High speed printing
■ Auto cutter available
   (CBM-720/CBM-750)
■ Auto winder option (AW-2)
■ 7K memory buffer
■ Two color printing (red/black)

Applications

● Receipt
● Journal
● Ticket
● Credit/Debit
● Daily Report
● Kitchen
● Delivery

Accessories

● Winder
   AW-2
● Ink ribbon
   IR-61

Mechanism

DP-600

Type Classification

CBM-710-40 R F 230 I B V
① ②③④ ⑤ ⑥⑦⑧

①**Model type**
   710: Without auto cutter
   720: With auto cutter
   750: Vertical printer with auto
         cutter
②**Column capacity**
   23: 23 columns
   28: 28 columns
   40: 40 columns
③**Interface**
   P:Parallel
   R:Serial
      RS-232
      20 mA Current loop
④**Character set**
   F: International
   J: Japanese
⑤**Power source**
   100: AC 100 V
   120: AC 120 V
   230: AC 230 V
⑥**Mode**
   C:Character (23, 28 columns)
   I: Character (40 columns)
   G:Graphic
⑦**Memory back-up**
   B:With back-up
   N:Without back-up
⑧**Validation function**
   (710 only)
   V: Available
   None: Not available

Further Information

Mechanism

DP-600
➜29P

Control Board

CBM-606
➜32P

Auto Cutter

AC-2
➜33P

Specifications

Model	CBM-710	CBM-720	CBM-750
Printing method	Serial dot impact		
Printing direction	Bidirectional		
Font	7 × 7 matrix		
No. of columns	23/28/40 columns		
Printing speed	40 col = 3.0 lines/sec.		
Character size (W × H)	23 col = 1.8 × 2.4mm / 28 col = 1.5 × 2.4mm / 40 col = 1.35 × 2.4mm		
Line spacing	Character = 4.23mm, 1/6" / Graphic = 2.8mm		
Character pitch	23 col = 2.49mm / 28 col = 2.07mm / 40 col = 1.59mm		
Line feed speed	40 col = 16 lines/sec.		
Paper feed method	Friction		
Paper	76mm Roll paper		
Interface	Parallel: Centronics, Serial: RS-232C, 20mA Current loop		
Input buffer	7K bytes		
Paper end sensor	Equipped		
Validation	Option	None	None
Paper cutter	None	Partial/Full cut	Partial/Full cut
Paper winder	AW-2 (Option)		–
Cash drawer control	None		
Ink ribbon	Red/Black, Cassette		
Power supply	AC 100/120/230V		
Power consumption	30W		
Weight	3.1kg	3.3kg	3.6kg
External dimensions (W × D × H)	176 × 255 × 125mm	176 × 255 × 146.5mm	178.6 × 203.2 × 330mm
Operating temp. range	5 ~ 35°C		
Storage temp. range	−20 ~ 70°C		
Reliability	Printer: MCBF 4.0 million lines Head: 80 million characters	Printer: MCBF 4.0 million lines Head: 80 million characters Cutter: 300,000 cuts	

C O M P L E T E   P R I N T E R S

CBM-820

Slip

80~
182 mm

Features

- ■ Slip paper printing
- ■ Easy paper loading
- ■ 3 ply paper printing capability
- ■ Cash drawer kick out
- ■ ESC/POS
- ■ Compact design
- ■ Page mode

CBM-820

Applications

- ●Receipt
- ●Invoice
- ●Sales slip
- ●Daily report
- ●Ticket
- ●Delivery
- ●Credit/Debit
- ●Check endorsement
- ●Check

Accessories

- ●Ink ribbon
  IR-82

Type Classification

CBM-820 R F 230
　　　　　① ② 　③

①**Interface**
　　R: Serial RS-232C
②**Character set**
　　F: International
③**Power source**
　　100: 100 V
　　120: 120 V
　　230: 230 V

Specifications

Model	CBM-820
Printing method	Serial impact dot matrix
Printing head	9 pins
No. of columns	42 col. (7 × 9 font), 35 col. (5 × 9 font)
Printing speed	3.1 lines/sec. (Maximum)
Character size (W × H)	7 × 9 font (half): 1.2 × 2.42mm
	5 × 9 font (2 pulses per dot): 1.5 × 2.42mm
	5 × 9 font (3 pulses per dot): 2.1 × 2.42mm
Character set	PC437, PC850, International
Dot spacing	Horizontal: 0.30mm　Vertical: 0.35mm
Printing width	63mm
Emulation	ESC/POS
Ink ribbon	Purple or Black (CBM ink ribbon cassette)
Paper	80 to 182mm (W) × 80 to 257mm (H)
	Original + 2 copies / Thickness: 1 ply 0.09 to 0.2mm
	Duplicates 0.12mm to 0.25mm / (Max. 0.2mm for graphics printing)
Interface	Serial: RS-232C
Input buffer	2K bytes or 35 bytes
Cash drawer control	2 drawers
Sensors	Paper out top-of-form, bottom-of-form sensors
Power supply	AC adaptor (31 AD) 100/120/230V / Output 24V DC 5%, 1.9A
Power consumption	Peak current: 3.1A / Continuous ASCII printing + paper feed: 0.6A
Weight	2.1kg
External dimensions (W × D × H)	180 × 190 × 138mm
Operating temp. range	5 ~ 40°C
Storage temp. range	−20 ~ 60°C
Reliability	Mechanism (MCBF): 2.5 million lines / Printer head life: 70 million characters

Application Reference Table

Application	LINE THERMAL PRINTERS							
Model	CBM-230 CBM-231	CBM-232 CBM-233	CBM-253	CBM-262	CBM-270	CBM-291 CBM-293	iDP-3221	PPU-231 PHU-131
Receipt	●	●	●	●	●	●	●	
Journal				●				
Sales Slip								
Coupon	●	●	●	●	●	●	●	
Ticket	●	●	●	●	●	●	●	●
Label			●		option			
Credit/Debit					●			
Check								
Invoice								
Daily Report	●	●	●	●	●	●	●	
Kitchen	●	●	●	●	●	●	●	
Delivery	●	●	●	●	●	●	●	
Check Endorsement								
Bar-code	●	●	●	●	●	●	●	●
Industrial machine						●		●
Portable								
Kiosk						●		●

Application Reference Table

Application	iDP-3420 iDP-3421	iDP-3423	iDP-3550 iDP-3551	iDP-3110 CBM-910	iDP-3111	CBM-920	iDP-460 iDP-562	CBM-710 CBM-720	CBM-750	CBM-510 CBM-520	CBM-820
IMPACT PRINTER											
Receipt	●	●	●	●	●	●	●	●	●	●	●
Journal		●	●					●			
Sales Slip											●
Coupon											
Ticket	●	●	●	●	●	●	●	●	●	●	●
Label											
Credit/Debit	●	●	●	●	●	●	●	●	●	●	●
Check											●
Invoice											●
Daily Report	●	●	●	●	●	●	●	●	●	●	
Kitchen	●	●	●	●	●	●	●	●	●	●	
Delivery	●	●	●	●	●	●	●	●	●	●	●
Check Endorsement											●
Bar-code											
Industrial machine						●				●	
Portable					●						
Kiosk											

Feature Reference Table

Model name	Auto cutter	Bar-code	Battery drive	Cash drawer kick-out	DC drive	ESC/POS	Internal power supply	Label printing	Metal case	Panel Mount	Paper winder	Paper auto loading	Sprocket feed	Two station	Validation print
CBM-230		●		●		●	●					●			
CBM-231	●	●		●		●	●					●			
CBM-232		●		●		●						●			
CBM-233	●	●		●		●						●			
CBM-253	●	●		●		●	●	●							
CBM-262	●	●		●		●					●	●		●	
CBM-270		●				●		Option				●			
CBM-291	●	●			●	●				●		●			
CBM-293	●	●			●	●				●		●			
iDP-3221	●	●		●		●						●			
PPU-231 PHU-131	●	●				●									
iDP-3110															
iDP-3111			●												
iDP-3420				●		●	●					●			
iDP-3421	●			●		●	●					●			
iDP-3423	●			●		●	●				●	●			
iDP-3550F				●		●	●				Option	●			
iDP-3550P				●		●	●	●					●		
iDP-3551F	●			●		●	●				Option	●			
CBM-510							●		●						
CBM-520					Option		●		●	●					
iDP-460				Option								●			
iDP-562							●								
CBM-710							●				Option				Option
CBM-720	●						●				Option				
CBM-750	●						●								
CBM-820				●		●									●
CBM-910															
CBM-920					●					●		●			

PPU-231/PHU-131

Printer Presenter Unit

Paper roll

80 mm

Unit breakdown

Complete unit
PPU-231/PHU-131
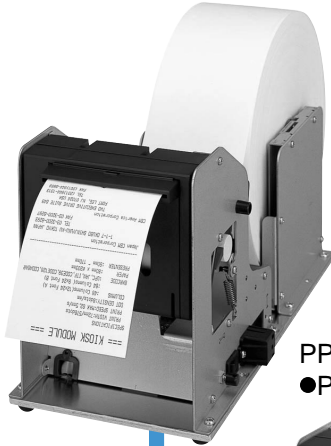
*The bottom plate is not included.

PPU series
● Printer presenter unit
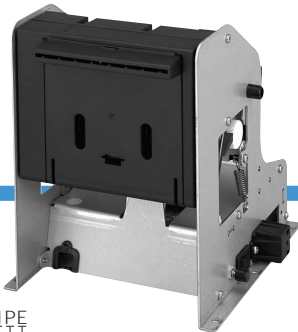
PPU-231PE
- Model
- Printing method
  2: Thermal
- Paper width
  3: 80mm
- Product number
  1: Standard
- Interface
  P: Parallel
  R: Serial
- Character set
  K: Japan
  U: US
  E: Europe

PHU series
● Paper holding unit
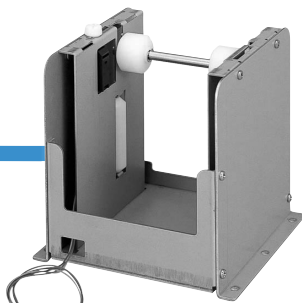
PHU-131
- Model
- Product number
- Paper width
  3: 80mm
- Paper near end sensor
  1: 1 sensor
  2: 2 sensors

PRU series
● Presenter unit
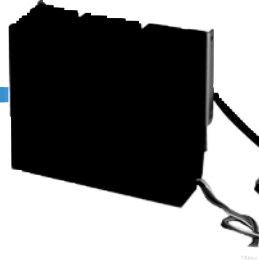
PRU-130
- Model
- Product number
- Paper width
  3: 80mm
- Custom code

< Configuration >
1. Presenter (PR-1)
2. Auto cutter (ACS230F)
3. Presenter bracket

PMU series
● Printer mechanism unit
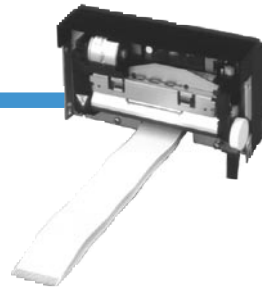
PMU-230
- Model
- Printing method
  2: Thermal
- Paper width
  3: 80mm
- Custom code

< Configuration >
1. Printer mechanism (LT380V)
2. Paper guide
3. Intermediate PCB
4. Mechanism bracket

BD2 series
● Control board set

BD2-380APE
- Custom code
- Interface
  P: Parallel
  R: Serial
- Character set
  K: Japan
  U: US
  E: Europe

< Configuration >
1. Main control PCB
2. Accessories
* Choose I/F connector harness Assy.

● Accessories

Power source connector   Power switch   Feed switch

I/F connector harness Assy
(for serial)   (for parallel)
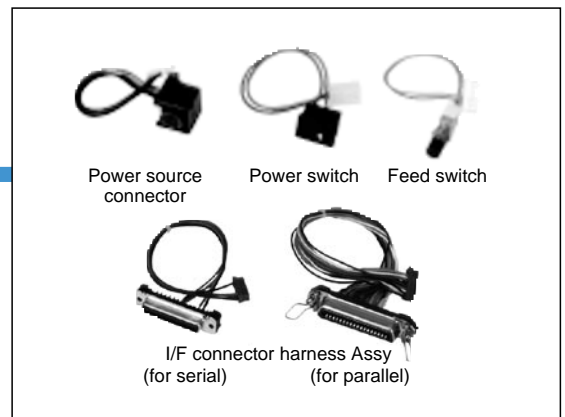
Features

■ Easy paper handling — The presenter unit feeds the paper after print and cut.
■ Auto paper loading.
■ Bar codes printing.
■ Capable of loading large diameter roll paper (203ø).
■ Both parallel (Centronics) and serial (RS-232C) interfaces available.
■ Equipped with a paper end sensor and paper near end sensor.
■ AC adapter available.

Standard Specifications

Printing method	Line thermal dot printing
Printing width	72mm/576 dots
Dot pitch	8 dots/mm
Printing speed	62.5mm/sec. [Max.] (500 dot lines/sec.)
No. of columns	48 columns (Font A), 64 columns (Font B)
Font size	1.25mm x 3.00mm (Font A: 12 x 24 dots) 0.88mm x 3.00mm (Font B: 9 x 24 dots)
Fonts	Alphanumeric, International characters
Bar codes	UPC-A, JAN (EAN) 13 col./8 col., ITF, CODE39, CODE128, CODABAR
Line spacing	4.23mm (1/6") Selectable by command set (Min. 1/203 inch).
Printing paper	Thermal roll paper Width: 80mm External diameter: ø203mm (with paper holder unit) Internal diameter: ø25.4mm Paper thickness: 60 to 85µm Recommended paper: TF-50KS-E, TF-62KS-E (Nippon Paper Industries)
Presenter	Standard length:64~305mm (Max.457mm)
Interface	Serial (RS-232C) or Parallel (Centronics)
Input buffer	4K bytes
Command	ESC/POS
Sensors	Paper near end sensor (adjustable, for PHU series) Paper end sensor (for PMU series) Black mark sensor (option)
Power source voltage	24V±7%
Power consumption	100W
Weight	PPU: 1.6 kg (incl. control PCB) PHU: 0.9 kg (excl. roll paper)
External dimensions	PPU: 153.7 x 160 x 172mm / PHU: 132.2 x 120 x 125.2mm
Operating temperature/humidity	5 to 40˚C, 35 to 85%RH (No condensation)
Storage temperature/humidity	-20 to 60˚C, 10 to 90%RH (No condensation)
Reliability	Head: 50 million pulses (12.5% printed area) 30 km (normal temperature/humidity with recommended paper) Auto cutter: 300,000 cuts (normal temperature/humidity with recommended paper)

Printer Presenter Unit   PPU-231
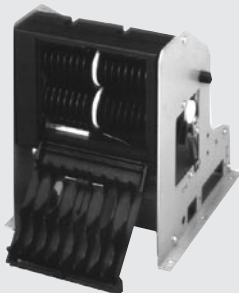
Presenter unit (opened view)
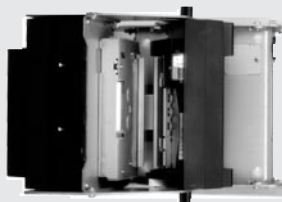
Presenter unit and printer
(opened view, shown from above)

Easy access for maintenance and cleaning.
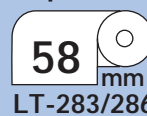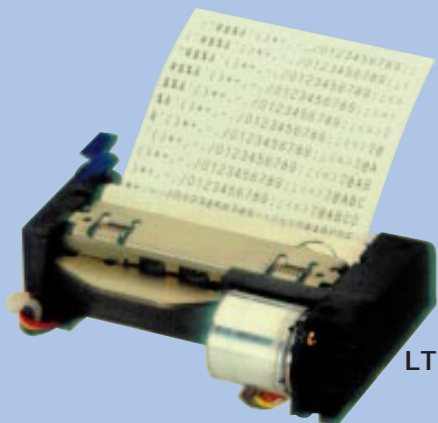
Power supply unit

31AD

LT-282/283/286

LT-282/283

LT-286

Paper roll 60 mm — LT-282
Paper roll 58 mm — LT-283/286

Features

- ■ Compact design
- ■ Lightweight
- ■ Low noise printing
- ■ High speed printing
- ■ High resolution
- ■ High reliability
- ■ Variety of choice for
    Paper width (58 or 60mm),
    Voltage (5 or 24V)
    Sensor position (rear or bottom)

Accessories

- ●Control board
    BD2-2820 (LT-282/283)
    BD2-2860 (LT-286)
- ●Control chip/Gate array
    202PC-03/202PC-04/202LA-00
- ●Auto cutter
    AC-123/123F (LT-282/283)
    ACS-223 (LT-282/283)
    ACS-224 (LT-286)

Type Classification

LT-<u>282</u> <u>H</u>
①②③ ④

①**Size**
    2: 2 inch class
②**Dot density**
    8: 8 dot/mm
③**Type**
    2: 60mm, 24V
    3: 58mm, 24V
    6: 58mm, 5V
④**Sensor position**
        (not for LT286)
    H: Rear
    V: Bottom

Further Information

Control Board
BD2-2820
BD2-2860
➜**32P**

Control Chip
CPU
202PC-03
202PC-04
Gate Arrary
202LA
➜**32P**

Auto Cutter
AC-120
ACS-220
➜**33P**

Specifications

Model	LT-282	LT-283	LT-286
Printing method	Line thermal dot printing		
No. of overall dots	448 dots/line	416 dots/line	384 dots/line
Dot density	8 dots/mm		
Print width	56mm	52mm	48mm
Print speed	Max. 500 dot-line/sec.		Max. 400 dot-line/sec.
Paper feed pitch	0.125mm		
Sensors			
Head temperature	Thermistor		
Presence of paper	Photo-interrupter		
Head-up	Mechanical switch		
Voltage range			
Vp system	DC 24V ±5%		DC 4.2 – 8.5V
Vcc system	DC 5V ±5%		DC 4.75 – 5.25V
Current consumption			
Head (Vp)	Max. 5.1A Average 0.3A		Max. 3.3A
Motor (Vp)	Max. 0.36A Average 0.3A		Max. 1.25A Average 0.14A
Printing paper			
Width	60 +0/–1mm	58 +0/–1mm	
Thickness	60 ~ 72μ		
Recomended paper	Mitsubishi Paper Mills Limited FP220VP or equivalent		Shin-Oji KF50-HAD
Print head life			
Pulse resistance	50,000,000 pulses (12.5% print)		
Wear-resistance	30km or more		50km or more
Operating environment	Temperature: 0 ~ 45°C / Humidity: 35 ~ 85% (No condensing)		
Storage environment	Temperature: –20 ~ 60°C / Humidity: 10 ~ 90%		
External dimensions (W × D × H)	83 × 53 × 20mm		75 × 56.5 × 21mm
Weight	102g		85g

LT-380

Paper roll

80 mm

LT-380

Features

■ Compact design
■ Lightweight
■ Low noise printing
■ High speed printing
■ High resolution (8 dots/mm)
■ High reliability
■ 80mm paper width
■ 24V operation
■ Choice of sensor position
  Rear: LT-380H
  Bottom: LT-380V

Accessories

● Control board
  BD2-3800
● Control chip/Gate array
  202PC-01/202LA-00
● Auto cutter
  AC-132/132F
  AC-133/133F
  ACS-232/233

Type Classification

LT-380 H
①②③ ④

①**Size**
  3: 3 inch class
②**Dot density**
  8: 8 dot/mm
③**Type**
  0: 80mm, 24V
④**Sensor position**
  H: Rear
  V: Bottom

Further Information

Control Board

BD-2-3800
➡**32P**

Control Chip

CPU
202PC-01
Gate Arrary
202LA
➡**32P**

Auto Cutter

AC-130
ACS-230
➡**33P**

Specifications

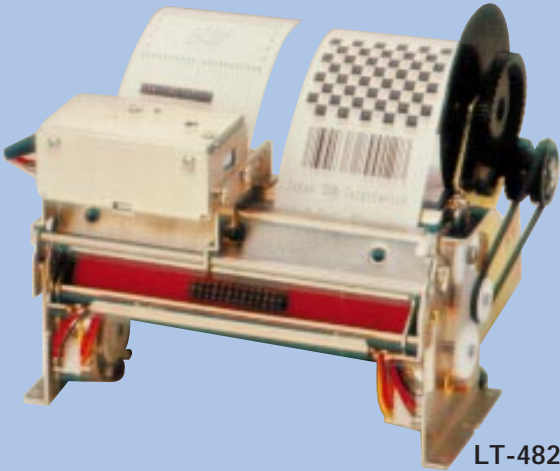| Model	LT-380
Printing method	Line thermal dot printing
No. of overall dots	576 dots/line
Dot density	8 dots/mm
Effective printing width	72mm
Printing speed	Max. 500 dot-line/sec.
Paper feed pitch	0.125mm
Motor	4 phase stepping motor / Voltage: 24V DC ±10% / Current: Approx. 150mA
Printing head	Line thermal head / Circuit voltage: 5V DC ±5% 100mA Driving voltage: 24V DC ±5% / Current: 1A
Printing paper	Paper width: 80.00 ± 0.5mm / Recommended thermal paper TF50SK-EY / TF50KS-E2C manufactured by Jujo paper
Sensors	Head temperature sensor: Thermistor Head-up detector: Mechanical switch Paper end detector: Photo interrupter
External dimensions (W × D × H)	101 × 53 × 20mm
Weight	Approx. 135g
Operating environment	Temperature: 5 ~ 40°C Humidity: 35 ~ 80% (No condensing)
Storage environment	Temperature: –20 ~ 60°C Humidity: 10 ~ 90%
Reliability	Head life Pulse resisting property: 50 million pulses Printing distance: 30km

Line Thermal Printer Mechanisms

LT-280/480

Paper roll **Paper roll**

60 mm **112** mm
LT-280 LT-480
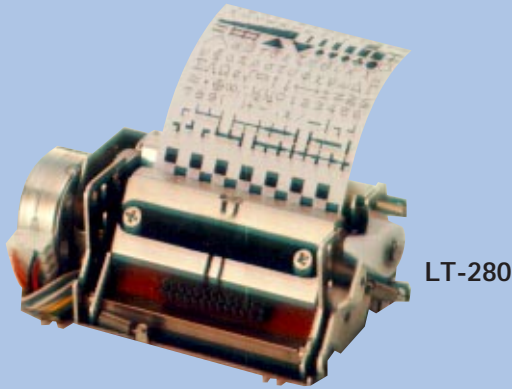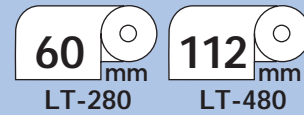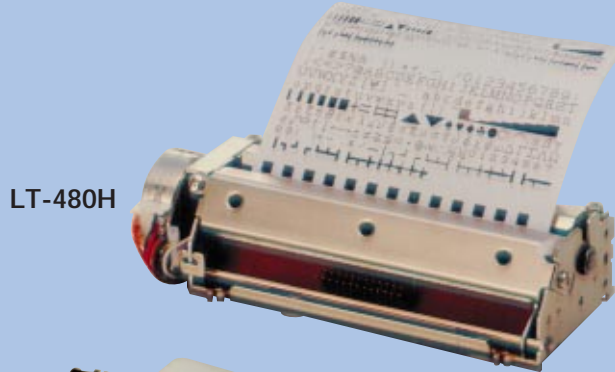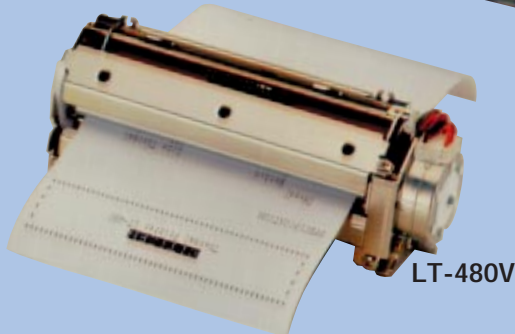
LT-280

LT-480H

LT-480V

Features

- Low noise printing
- High speed printing
- High resolution (8 dots/mm)
- High reliability
- Thermal head opening function (LT-280)
- Paper sensors at rear and bottom (LT-280)
- Choice of sensor position (LT-480)
    - Rear: LT-480H
    - Bottom: LT-480V

Accessories

- Control board
    - CBM-202-20 (LT-280)
    - CBM-202-40 (LT-480)
- Auto cutter
    - AC-5/5F (LT-280/Guillotine)
    - AC-7 (LT-280/Rotary)
    - AC-6P/6F (LT-480)

Type Classification

LT-480 V
①②③ ④

① **Size**
- 2: 2 inch class
- 4: 4 inch class

② **Dot density**
- 8: 8 dot/mm

③ **Type**
- 280: 60mm, 24V
- 480: 112mm, 24V

④ **Sensor position** (not for LT-280)
- H: Rear
- H: Bottom

Further Information

Control Board

CBM-202-20
CBM-202-40
➔ **32P**

Auto Cutter

AC-5/6
➔ **33P**

Specifications

Model	LT-280	LT-480
Printing method	Line thermal dot printing	
No. of overall dots	448 dots/line	832 dots/line
Dot density	8 dots/mm	
Effective printing width	56mm	104mm
Printing speed	Max. 50mm/sec. (400 dot-line/sec.)	
Paper feed pitch	0.125mm	
Voltage	24V DC ±5% (motor and head) / 5V DC ±5% (logic)	
Current	200mA (motor) Max. 11.7A (Head)	
Printing paper	Paper width: 59.5 ± 0.5mm Recommended thermal paper TF50SY-EY TF50KS-E2C manufactured by Jujo paper	Paper width: 111.5 ± 0.5mm Recommended thermal paper TF50SY-EY TF50KS-E2C manufactured by Jujo paper
Sensors	Head temperature sensor: Thermistor Head-up detector: Mechanical switch Paper end detector: Photo interrupter	
External dimensions (W × D × H)	111.5 × 53.5 × 40.8mm	161 × 54 × 36mm
Weight	Approx. 300g	Approx. 450g
Operating environment	Temperature: 5 ~ 40°C Humidity: 35 ~ 80% (No condensing)	
Storage environment	Temperature: –20 ~ 60°C / Humidity: 10 ~ 90%	
Reliability	Head life Pulse resisting property: 50 million pulses Printing distance: 30km	

LT-482

Paper roll

50 mm

Features

- ■ 2 station
- ■ Low noise printing
- ■ High speed printing
- ■ High resolution (8 dots/mm)
- ■ High reliability
- ■ 50mm × 2 paper width
- ■ 24V operation

LT-482

Accessories

- ● Control board
  - CBM-202-50PFG (Parallel interface)
  - CBM-202-50RFG (RS-232C interface)
- ● Auto cutter
  - AC-4P/4F (Supplied with mechanism)
- ● Paper winder
  - AW-4H/4V

Type Classification

LT-482 C F
①②③ ④ ⑤

① **Size**
   4: 4 inch class
② **Dot density**
   8: 8 dot/mm
③ **Type**
   48<u>2</u>: 2Station,112mm, 24V
④ **Cutter**
   C: With Cutter
   None: No Cutter
⑤ **Power source**
   F: Full cut blade
   P: Partial cut blade

AW-4 H
①②

① **Type**
   4: for LT-482
② **Shape**
   H: Horizontal
   V: Vertical

Further Information

Control Board

CBM-202-50
➔32P

Specifications

Model	LT-482
Printing method	Line thermal dot printing
No. of overall dots	832 dots/line
Dot density	8 dots/mm
Effective printing width	44mm × 2
Printing speed	400 dot-line/sec.
Paper feed pitch	0.125mm
Motor	4 phase stepping motor / Voltage: 24V DC ±5% / Current: 200mA
Printing head	Line thermal head / Circuit voltage: 5V DC ±5% 100mA Driving voltage: 24V DC ±5% / Current: Max. 11.7A
Printing paper	Paper width: 49.5 ± 0.5mm Recommended thermal paper TF50SK-EY TF50KS-E2C manufactured by Jujo paper
Sensors	Head temperature sensor: Thermistor Head-up detector: Mechanical switch Paper end detector: Photo interrupter
External dimensions (W × D × H)	154 × 54 × 72mm
Weight	Approx. 600g
Operating environment	Temperature: 5 ~ 40°C / Humidity: 35 ~ 80% (No condensing)
Storage environment	Temperature: –20 ~ 60°C / Humidity: 10 ~ 90%
Reliability	Head life Pulse resisting property: 50 million pulses Printing distance: 30km

MD-910

Paper roll

58 mm

Features

- Compact design
- Lightweight
- High speed printing
- High reliability
- 58mm paper width
- 5V operation
- Number of columns: MD-910 24 columns
  MD-911 40 columns
- Low temperature operating model available (type A)
- Knob model available (vertical or horizontal)

MD-910

Accessories

● Control board
   CBM-909-2D (MD-910)
   CBM-909-4D (MD-911)
   CBM-919-PF
   CBM-919-RF
● Control chip
   909PC-2D/F (MD-910)
   909PC-4D (MD-911)
● Paper winder
   AW-5
   (not supported by CBM-909)
● Ink ribbon
   IR-91
   IR-91L (Long life)

Type Classification

MD-910 - SS A
   ①   ② ③

①**Type**
   910: 24 columns
   911: 40 columns
②**Knob**
   SS: No knob
   HS: Horizontal knob
   VS: Vertical knob
③**Special feature**
   None: Regular model
   A: Cold temperature model

Further Information

Control Board

CBM-909
CBM-919
➜**32P**

Specifications

Model	MD-910	MD-911
Printing method	Serial impact dot matrix	
Printing direction	One-way printing	
Printing speed	Approx. 2.5 lines/sec.	Approx. 1.8 lines/sec.
No. of columns	24 columns: 144 dots/line	40 columns: 180 dots/line
Font	$(5+1) \times 7$	$(4+0.5) \times 7$
No. of wires	4×2	
Character size (W × H)	Approx. 1.7×2.4mm	Approx. 1.1×2.4mm
Character pitch	1.98mm (Interval of columns) 4.23mm (Interval of lines)	1.19mm (Interval of columns) 4.23mm (Interval of lines)
Motor	Voltage: $5.0^{+0.5}_{-1.2}$ V DC / Peak current: Approx. 1A / Average current: 0.3A max.	
Dot pulse sensor	Photo interrupter	
Home pulse sensor	Leaf switch	
Printing sensor	Voltage: $5.0^{+0.5}_{-1.2}$ V DC / Resistance: 1.7 ±0.3Ω (25°C)	
Paper feed solenoid	Voltage: $5.0^{+0.5}_{-1.2}$ V DC / Resistance: 9 ±2Ω (25°C)	
Connecting method	Copper foil patterns at 2.54mm pitch.	
Drive voltage	3.5 ~ 5.5V DC	
Printing paper	57.5 ±0.5mm	
Copy	Original print + 1 copy	
Ink ribbon	Special ribbon cartridge of black or purple	
Paper feed speed	Approx. 5 lines/sec.	Approx. 3.6 lines/sec.
External dimensions (W × D × H)	$90 \times 45.5 \times 16$mm	
Weight	105g ±10%	
Operating temperature	0 ~ 50°C	
Storage temp. range	−25 ~ 70°C	
Reliability	MCBF: 1.5 million lines	MCBF: 1.0 million lines

DP-400

Paper roll

76 mm

Features

- Very compact design
- Lightweight
- High speed printing
- High reliability
- 2 color printing (black/red)
- 76mm paper width
- 42 columns
- 24V operation
- Graphic printing (DP-410)
- Sprocket feed model available
- Sensor for paper auto loading
- Black mark sensor (option)

DP-400

Accessories

- Auto cutter
  ACS-234
- Ink ribbon
  IR-41
- Control board available soon
- Paper winder available soon

Type Classification

DP-410 D F
  ①   ② ③

①**Type**
    400: 7 pin head
    410: 9 pin head
②**Ribbon**
    D: 2 color
③**Paper feed method**
    F: Friction feed

Further Information

Auto Cutter

ACS-230
➔**33P**

Specifications

Model	DP-400	DP-410
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional	
Printing speed	Approx. 3 lines/sec.	
No. of columns	42 columns, 189 dots/line	
Font	7 × 7	7 × 9
No. of wires	7 pins	9 pins
Character size (W × H)	1.31 × 2.4mm	1.31 × 3.1mm
Character pitch	1.52mm	
Line spacing	4.23 or 2.82mm (1/6 or 1/9 inch) / Minimum 1.41mm (1/18 inch)	
Motor	Voltage: 24V ±5% V DC / Current: Peak Approx. 1A / Average less than 0.2A	
Reset pulse sensor	Photo interrupter	
Dot pulse sensor	Photo interrupter	
Home position sensor	Photo interrupter	
Paper out sensor	Photo interrupter	
Black mark sensor (option)	Photo interrupter	
Printing solenoid	Voltage: 24V ±5% V DC / Resistance: 17Ω (25°C)	
Printing feed solenoid	Voltage: 24V ±5% V DC / Resistance: 34Ω (25°C)	
Color change solenoid	Voltage: 24V ±5% V DC / Resistance: 34Ω (25°C)	
Connecting method	FFC or FPC cable	
Paper feed	Friction feed or sprocket feed	
Printing paper	Friction feed: 76 ±0.5 × ø83mm / Sprocket feed: 76mm fanfold paper	
Copy	Friction feed: original + 1 copy / Sprocket feed: original + 2 copies	
Ink ribbon	Exclusive ink ribbon cartridge / 2 color (Black/red), black or purple	
Paper feed speed	Approx. 28 lines/sec.	
External dimensions (W × D × H)	120 × 90 × 45mm	
Weight	Approx. 470g	
Operating temp. range	0 ~ 50°C	
Storage temp. range	−20 ~ 70°C	
Reliability	Mechanism: MCBF 2.5 million lines / Head: 80 million characters	

P R I N T E R   M E C H A N I S M S

DP-505

Paper roll **Paper roll**

58 mm — DP-555
69 mm — DP-575

DP-555

DP-575 L 12 A
① ② ③ ④

①**Type**
555: 24 columns
575: 40 columns
②**Printing direction**
L: Left to right
R: Right to left
③**Voltage**
12:12V
17:17V
④**Special feature**
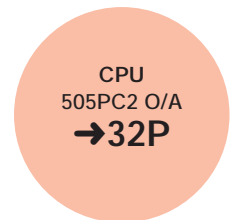None: Regular model
A: Cassette ribbon model
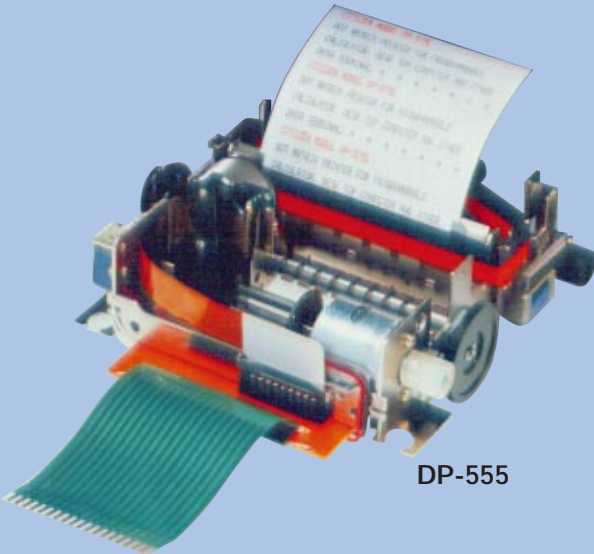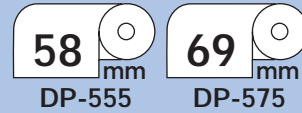
Features

- Compact design
- Lightweight
- 2 color printing (black/red)
- Paper width/Number of columns
  DP-555 58mm/24 columns
  DP-575 69mm/40 columns
- 12V operation
- Graphic model available (G type)
- 2 station model available
  (DP-535: 17 columns×2)
- Cassette ribbon type available (A type)

Accessories

- Control board
  CBM-505PF (Parallel interface)
  CBM-505RF (Serial interface)
- Control chip
  505PC-2A/2O
- Auto cutter/Paper winder
  AC-3/3F
  NW-58 (DP-555)
  NW-69 (DP-575)
  (not supported by CBM-505)
- Ink ribbon
  IR-01

Further Information

Control Board

CBM-505
➜**32P**

Control Chip

CPU
505PC2 O/A
➜**32P**

Auto Cutter

AC-3
➜**33P**

Specifications

Model	DP-555	DP-575
Printing method	Serial dot impact method	
Printing direction	L Series Left to right (Horizontal) R Series Right to left (Horizontal)	
Printing speed	Approx. 1.9 lines/sec.	Approx. 1.2 lines/sec.
No. of columns	24 columns	40 columns
Font	5 × 7 matrix	
Character size (W × H)	1.7 × 2.75mm	1.25 × 2.75mm
Character pitch	2mm	1.5mm
Line spacing	5.5mm	
Motor	Voltage: 12V ±1V DC / Peak current: Approx. 2.5A (12V, 25°C) Average current: Approx. 0.25A	
Dot pulse sensor	Photo interrupter	
Home switch	Voltage: 5V DC ~ 20V DC / Current: 100µA ~ 3mA (Resistance load)	
Printing solenoid	Voltage: 12V ±1V DC / Resistance: 4.9±0.5Ω (25°C) Energized time: 2 dot pulses (700±50µS) / Peak current: Approx. 2A	
Main solenoid	Voltage: 12V±1V DC / Resistance: 18.4±1Ω (25°C) Energized time: 16ms±10% (Max. of 5 continuous seconds)	
Color change solenoid	Voltage: 12V±1V DC / Resistance: 18.4±1Ω (25°C) Energized time: 20±2ms (Max. of 5 continuous seconds)	
Connecting method	Flexible cable (SMCD 18 × 91 ES10)	
Ink ribbon	Color 2 colors (Red and black), black or purple Spool diameter: 30ms or 35mm, width: 13mm	
Paper feeding speed	Approx. 8 lines/sec.	
Printing paper	57.5 ± 0.5mm	69 + 1mm
External dimensions (W × D × H)	120.5 × 114 × 44.5mm	
Weight	Approx. 450g	
Operating temp. range	0 ~ 50°C	
Paper feed traction	More than 100g (Citizen recommended paper)	
Reliability	Printer mechanism MCBF: 1.5 million lines / Dot head 50 million characters	

DP-600

Paper roll **Sproket**

76 mm **Ftype**

76~89 mm **Ptype**

DP-614 D F C V
① ② ③ ④ ⑤

①**Type**
- 610: 23 columns
- 612: 28 columns
- 614: 40 columns (360dots)
- 617: 40 columns (400dots)

②**Ribbon**
- D: 2 color
- M: 1 color

③**Paper feeding method**
- F: Friction feed
- P: Sprocket feed

④**Character / Graphic**
- C: Character only
- G: Graphic

⑤**Validation sensor**
- None: No validation
- V: Equipped

DP-600F

DP-600P

DP-600H
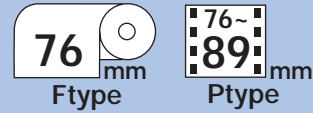
Features

- High speed printing
- High reliability
- 2 color printing (black/red)
- 76mm paper width
- Number of columns: DP-610 23 columns
  - DP-612 28 columns
  - DP-614 40 columns (360 dots)
  - DP-617 40 columns (400 dots)
- 24V operation
- Sprocket feed model available (P type)
- Graphic model available (G type)
- No platen model available (H type)
- Faster models available (DP-654=3.6L/S)

Accessories

- Control board
  - CBM-606PF (Parallel interface)
  - CBM-606RF (Serial interface)
- Auto cutter
  - AC-2/2F
  - AC-134/134F
- Paper winder
  - AW-2FA
- Ink ribbon
  - IR-61

Control Board

CBM-606
→32P

Auto Cutter

AC-2
AC-130
→33P
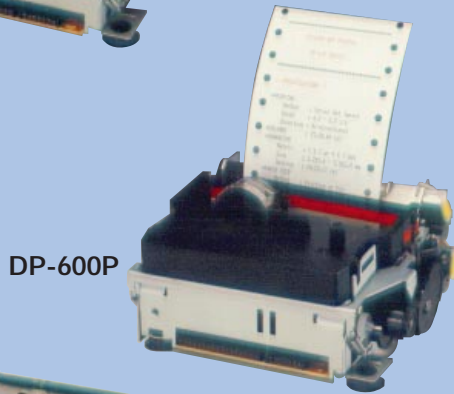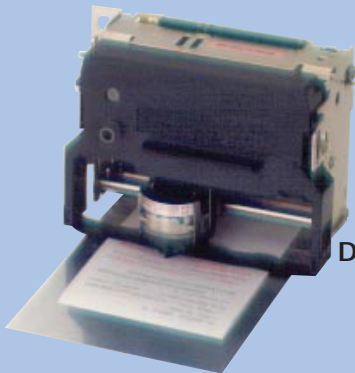
Specifications

Model	DP-610	DP-612	DP-614	DP-617
Printing method	Serial dot impact method			
Printing direction	Bidirectional			
Printing speed	Approx. 4.0 lines/sec.	Approx. 3.5 lines/sec.	Approx. 3.0 lines/sec.	Approx. 2.4 lines/sec.
No. of columns	23 columns, 230 dots/line	28 columns, 280 dots/line	40 columns, 360 dots/line	40 columns, 400 dots/line
Font	7×7 matrix			
Character size (W × H)	1.8×2.4mm	1.5×2.4mm	1.36×2.4mm	1.2×2.4mm
Line spacing	1/6 inch			
Motor	Voltage: 24V DC $^{+1}_{-2}$ V DC / Peak current: Max. 21A (12V, 25°C) Average current: Approx. 0.2A or less			
Dot pulse sensor	Photo interrupter			
Home position sensor	Photo interrupter			
Paper feed motor	Voltage: 24V DC $^{+1}_{-2}$ V DC / Resistance: 48Ω (25°C) Driving pulse width: 30 DP, Approx. 20ms			
Printing solenoid	Voltage: 24V ±1V DC / Resistance: 17Ω (24V DC, 25°C)			
Color change solenoid	Voltage: 24V DC $^{+1}_{-2}$ V DC / Resistance: 48Ω (24V DC, 25°C)			
Connector terminals	Connector 1 (MMP17R-1: Counterpart MMH17-1 manufactured by BURNDY) Connector 2 (MMP7R-1: Counterpart MMH7-1 manufactured by BURNDY)			
Paper feed	Friction feed or sprocket feed			
Printing paper	Friction feed: 76mm Roll paper × ø83mm / Sprocket feed: 76 ~ 89mm fanfold paper			
Copy	Friction feed: original + 1 copy / Sprocket feed: original + 2 copies			
Paper feed power	More than 100g (Citizen recommended paper)			
Ink ribbon	Two colors (Red and black) / Single color (Black or purple)			
Paper feed speed	Approx. 25 lines/sec.	Approx. 21 lines/sec.	Approx. 18 lines/sec.	Approx. 15 lines/sec.
External dimensions (W × D × H)	Two colors: $137 \times 136 \times 63.5$mm / Single color: $134 \times 136 \times 63.5$mm			
Weight	Approx. 690g			
Operating temp. range	0 ~ 50°C			
Reliability	Printer: MCBF 4.0 million lines / Head: 80 million characters			

DP-620

Paper roll **Sproket**

76 mm
Ftype

76~ 89 mm
Ptype

DP-620 F

Features

- High speed printing
- High reliability
- 2 color printing (black/red)
- Graphic printing
- 76mm paper width
- Number of columns: DP-622 28 columns
  DP-624 40 columns
  (360 dots)
  DP-627 40 columns
  (400 dots)
- 24V operation
- Sprocket feed model available (P type)

Accessories

- Control board
  CBM-626PF (Parallel interface)
  CBM-626RF (Serial interface)
- Auto cutter
  AC-134/134F
- Paper winder
  AW-2FA
- Ink ribbon
  IR-61

Specifications

Model	DP-622	DP-624	DP-627
Printing method	Serial dot impact method		
Printing direction	Bidirectional		
Printing speed	Approx. 4.2 lines/sec.	Approx. 3.6 lines/sec.	Approx. 3.0 lines/sec.
No. of columns	28 columns, 280 dots/line	40 columns, 360 dots/line	40 columns, 400 dots/line
Font	7×7 matrix		
Character size (W × H)	1.5×2.4mm	1.36×2.4mm	1.2×2.4mm
Line spacing	Min. 1/144 inch		
Motor	Voltage: 24V DC $^{+1}$ V DC / Peak current: Max. 1.5A Average current: Approx. 0.3A or less		
Dot pulse sensor	Photo interrupter		
Home position sensor	Photo interrupter		
Paper feed motor	4 shase 48 poles permanent magnet type stepping motor 24V DC ±10% (Drive voltage) / 5V DC ±15% (Hold voltage) Mean current: Approx. 300mA / Hold current: Approx. 150mA		
Printing solenoid	Voltage: 24 ±1V DC / Resistance: 17Ω (24V DC, 25°C)		
Connector terminals	Connector 1 (53156-1710, Connector part 51049-1700, Morex) Connector 2 (53015-0510, -51004-0600 M) Connector 3 (51004-0600, -53014-0610 M)		
Paper feed	Friction feed or sprocket feed		
Printing paper	Friction feed: 76mm roll paper × ø83mm / Sprocket feed: 76 ~ 89mm fanfold paper		
Copy	Friction feed: original + 1 copy / Sprocket feeds: original + 2 copies		
Paper feed power	More than 100g (Citizen recommended paper)		
Ink ribbon	Single color (Black or purple)		
Paper feed speed	Approx. 25 lines/sec.		
External dimensions (W × D × H)	$140.9 \times 153.2 \times 63.5$mm		
Weight	Approx. 730g		
Operating temp. range	0 ~ 50°C		
Reliability	Printer: MCBF 5.0 million lines / Head: 80 million characters		

DP-630/730

Paper roll **Paper roll**

38 mm **45** mm
DP-630   DP-730

DP-630 SERIES

DP-730 SERIES
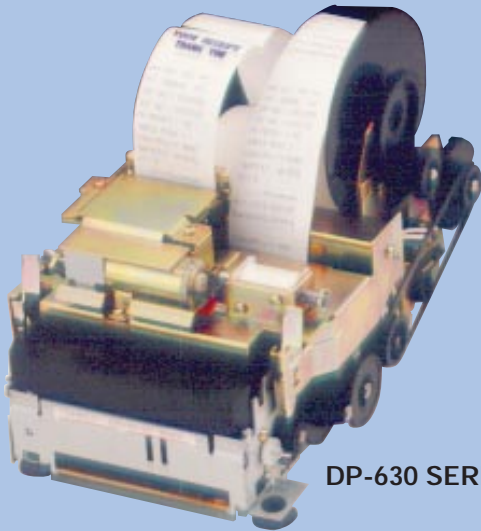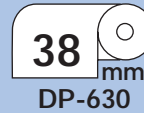
Features

■ 2 station printer mechanism (Receipt and Journal)
■ Validation printing (option)
■ High speed printing
■ High reliability
■ 24V operation
■ Variety of options

Options

● Validation sensor
● Auto cutter
● Paper winder
● Paper near end sensor
● Mark sensor
● Stamp

Accessories

● Winder
　PW-2 (DP-630)
● Ink ribbon
　IR-61 (DP-630)
　IR-71 (DP-730)

DP-630 V-S C
　　　① ② ③

①**Validation sensor**
　V: Equipped
　None: No validation sensor
②**Stamp**
　S: Equipped
　None: No stamp
③**Cutter**
　C: Equipped
　None: No cutter

PW-2 V S
　　　① ②

①**Near end sensor**
　S: Journal side
　W: Both side
　N: No sensor
②**Shape**
　H: Horizontal
　V: Vertical

DP-730F R C B
　　　　① ② ③
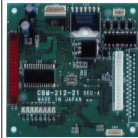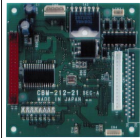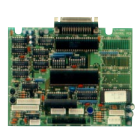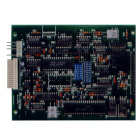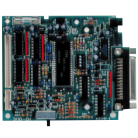
①**Validation sensor**
　R: No validation sensor
　M: Multi-line validation sensor
　P: 1 line L/R sensor
　None: 1 line right sensor
②**Cutter**
　C: Equipped
　None: No cutter
③**Stamp/Winder**
　None: No stamp/winder
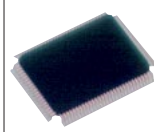　B: Both equipped
　S: Stamp only
　W: Winder only

Specifications

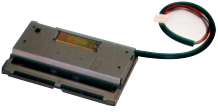| Model	DP-630	DP-730
Printing method	Serial impact dot matrix	
Printing direction	Bi-directional	
Font	7×7 matrix	7×7 or 9×7 matrix
No. of columns (validation)	18 columns × 2 (40 columns)	24 columns × 2 (55 columns)
No. of total dot/line (half dot)	180 (360) dots	248 (495) dots
No. of wires	9 pins (dot pitch 0.353mm)	
Printing speed	Approx. 3 lines/sec.	
Character size (W × H)	1.36×2.4mm	1.36×2.4mm or 1.36×3.1mm
Line spacing	5.08mm	4.23mm (1/6 inch)
Character pitch	Character = 1.59mm	
Ink ribbon	Exclusive ink ribbon cartridge (single color, black or purple)	
	IR-61	IR-71
Motor	Voltage: 24V +1/–2V DC	Voltage: 24V ±10%
	Current: Peak Approx. 1A	Current: Peak Approx. 2.5A
	Average less than 0.2A	Average less than 0.45A
Reset pulse sensor	Mechanical leaf switch	
Dot pulse sensor	Photo interrupter	
Home position sensor	Photo interrupter	
Printing solenoid	Voltage: 24V±1V DC	Voltage: 24V±10%
	Resistance: 17Ω	Resistance: 10.5Ω±10%
Paper feed solenoid	Voltage: 24V +1/–2V DC	Voltage: 24V±10%
	Resistance: 32Ω±10%	Resistance: 34Ω±10%
Connecting method	Pin connector	
Paper feed	Friction feed	
Printing paper		
Receipt and journal	37-38mm	44.5±0.5mm
	Outer dia Max. ø83mm	Outer dia Max. ø83mm
Validation	135-210 (W) × 70 (H) mm	
Paper feed speed	18 lines/sec.	30 lines/sec.
External dimensions (W × D × H)	$134 \times 136 \times 63.5$mm	$151 \times 234.6 \times 123.7$mm
Weight	Approx. 690g	Approx. 1,250g
Operating temp. range	0 ~ 50°C	
Storage temp. range	–25 ~ 70°C	
Reliability　Mechanism	MCBF 2.5 million lines	MCBF 4 million lines
Head	50 million characters	100 million characters

Control Boards
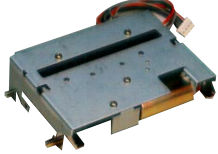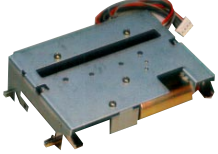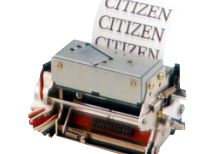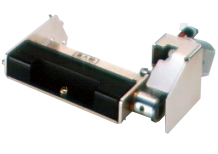
Model	BD2-2820	BD2-2860	BD2-3800	CBM-202	CBM-505	CBM-606	CBM-909	CBM-919
Printer mechanism	LT-282/283	LT-286	LT-380	LT-280/480/482	DP-555/575	DP-610/612/614/617	MD-910/911	MD-910/911
Auto cutter	ACS-223	ACS-224	AC-132 AC-133 ACS-232 ACS-233	AC-5 (LT-280) AC-6 (LT-480) AC-4 (LT-482)		AC-2 AC-134		
Winder						AW-2FA		
Interface	Parallel and RS-232C	Parallel and RS-232C	Parallel and RS-232C	Parallel or RS-232C	Parallel, RS-232C, Current loop or TTL	Parallel, RS-232C, Current loop or RS-422	Parallel and serial	Parallel or RS-232C
Command set	ESC/POS	ESC/POS	ESC/POS	Unique	CBM standard	CBM standard	Unique	CBM standard
No. of columns	LT-282/Font A: 37 LT-283/Font A: 34 LT-282/Font B: 49 LT-283/Font B: 46	Font A: 32 Font B: 42	Font A: 42 or 48 Font B: 56 or 64	LT-280: 28 LT-480: 52 LT-482: 22×2	DP-555: 24 DP-575: 40	DP-610: 23 DP-612: 28 DP-614: 40 DP-617: 40	MD-910: 24 MD-911: 40	MD-910: 24 MD-911: 40
Font	Font A: 12×24 dots Font B: 9×17 dots	Font A: 12×24 dots Font B: 9×24 dots	Font A: 12×24 dots Font B: 9×17 dots	16×32 dots	5×7 dots	7×7 dots (including half dot)	MD-910: 5×7 MD-911: 4×7 (including half dot)	MD-910: 5×7 MD-911: 4×7 (including half dot)
Buffer	4K or 72 bytes	2k bytes	3K or 72 bytes	1 line	1 line	7K bytes or 2 lines	1 line	2k bytes
Supporting devices	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch Error LED Paper out LED	Auto cutter Paper sensor Head-up sensor LF switch SEL switch On-line LED	—	Auto cutter Auto winder Paper end sensor LED's (Power/Error/ On-line) Switches (LF/On-line)	LF switch On-line switch	LF switch On-line switch
Dimensions	80×80mm	80×80mm	80×80mm	150×118mm	135×95mm (PF) 155×119mm (RF)	114×152mm	80×55.5mm	90×55.5mm
Source voltage	5.0±5% and 24V±5%	5.0±5%	5.0±5% and 24V±5%	5.0±5% and 24V±5%	5V±5% and 13±1.0V	5.0±5% and 24±1.0V	4.0 +0.7/−1.0V	7V±1V
Custom control chip	202PC-03	202PC-04	202PC-01	—	PC-2A/2O	—	909PC-2D/4D	—
Gate array	202LA-00	202LA-00	202LA-00	—	—	—	—	—

Control Chips/Gate Array

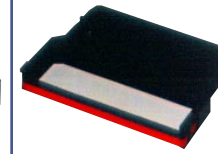| Type	Control chip	Control chip	Control chip	Gate array	Control chip	Control chip	Control chip
Model	202PC-01	202PC-03	202PC-04	202LA-00	PC-2O PC-2A	909PC-2D 909PC-4D	909PC-2F
Printer mechanism	LT-380	LT-282/283	LT-286	LT-series	DP-555/575	MD-910/911	MD-910/911
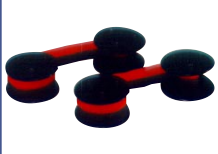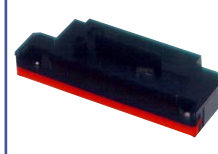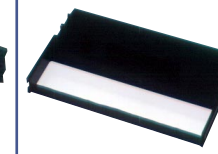
Cutters

	AC-120	AC-130	ACS-220	ACS-230
Cutting method	Guillotine	Guillotine	Slide cutting	Slide cutting
Paper width / thickness	38 — 69 mm / 0.06 — 0.09 mm	50 — 89 mm / 0.06 — 0.09 mm	45 — 69 mm / 0.06 — 0.15 mm	50 — 89 mm / 0.06 — 0.15 mm
Max. cutting frequency	20 cut/min	20 cut/min	20 cut/min	20 cut/min
Voltage*	24V ±10%	24V ±10%	24V ±10%	24V ±10%
Current (peak)	0.8A	0.8A	0.8A	0.8A
Operating temperature	0 — 45°C	0 — 45°C	0 — 45°C	0 — 45°C
Size	80 × 57 × 15 mm	102 × 57 × 15 mm	80 × 55.7 × 15 mm	102 × 55.7 × 15 mm
Weight	130g	160g	140g	180g
Reliability	300,000 cuts	300,000 cuts	500,000 cuts	500,000 cuts
Number of tab left (F)ull cut blade type (P)artical cut blade type	0 or several tabs / 1 or several tabs	0 or several tabs / 1 or several tabs	0 or 1 tabs / —	0 or 1 tabs / —
Applicable mechanism (Cutter model name with mounting bracket and paper guide)	LT-282 (AC-123) LT-283 (AC-123)	LT-380 (AC-132) LT-380 (AC-133) DP-6xx (AC-134)	LT-282 (ACS-223) LT-283 (ACS-223) LT-286 (ACS-224) LT-280 (ACS-229)	LT-380 (ACS-232) LT-380 (ACS-233) DP-400 (ACS-234)

	AC-2	AC-3	AC-5	AC-6	AC-7
Cutting method	Guillotine	Guillotine	Guillotine	Guillotine	Rotary
Paper width / thickness	76 ±0.5 mm Ma / 0.06 — 0.085 mm	76 ±0.5 mm Ma / 0.06 — 0.085 mm	59.5 ±0.5 mm / 0.065 mm	111.5 ±0.5 mm / 0.065 mm	59.5 ±0.5 mm / 0.15 mm
Max. cutting frequency	20 cut/min	20 cut/min	6 cut/min	6 cut/min	10 cut/min
Voltage*	24V ±10%	12V ±10%	24V ±10%	24V ±10%	24V ±10%
Current (peak)	0.8A	1.2A	1.3A	1A	1.3A
Operating temperature	0 — 40°C	0 — 40°C	5 — 40°C	5 — 40°C	5 — 40°C
Size	99 × 74 × 30 mm	93 × 74 × 25 mm	70 × 55 × 31.7 mm	130 × 55 × 21.5 mm	96.5 × 85.5 × 40 mm
Weight	200g	200g	160g	260g	150g
Reliability	300,000 cuts	300,000 cuts	300,000 cuts	300,000 cuts	500,000 cuts
Number of tab left (F)ull cut blade type (P)artical cut blade type	0 or 2-5 tabs / 1 or 3-5 tabs	0 or 2-5 tabs / 1 or 3-5 tabs	1 tabs / 8 tabs	1 tabs / —	0 tabs / —
Applicable mechanism (Cutter model name with mounting bracket and paper guide)	DP-6XX (AC-2)	DP-5XX (AC-3)	LT-280 (AC-5)	LT-480 (AC-6)	LT-280 (AC-7)

* For some models, other voltages are also available.

Ribbons

IR-01 RB/BL/P For DP-505	IR-41 RB/B/P For DP-400	IR-51 RB/B/P For IDP-562	IR-61 RB/B/P For DP-6xx	IR-71 P For DP-730	IR-91 P/B IR-91 L (long life) For MD-910/911

Winders

NW-58 for DP-555 NW-69 for DP-575	AW-5 for MD-910

Drawers

7XXDR For CBM-7XX Series 23XXDR For other models

Customer Display

Specification

Display method	Vacuum fluorescent display
Display color	Blue green
Number of character	20 columns x 2 lines
Brightness	700 cd/m2
Character font	5 x 7 dot matrix, comma, decimal point
Character size	9.2 x 5.25 mm
Character pitch	8.3 mm
Code page	PC-437 / 850 / 860 / 863 / 865, Slavonic, Russian, Katakana
Emulation	CBM standard, ESC/POS
Interface	RS-232C (with path through function)
Power supply	12V DC
Power consumption	4.5 W
MTBF	25,000 hours
Dimension	230(W) x 100(H) x 42(D) mm
Viewing angle	±30 degrees
Rotation angle	Maximum 270 degrees
Weight	0.9 kg
Safety	FCC class B, CE

Included items
- Display unit
- Base unit
- Short pole
- Long pole
- AC adapter
- AC cable
- Interface cable (DB25 female - DB9 male)
- User's manual

Accessories/Options

Accessory Reference Table

COMPLETE PRINTERS											
MODEL		CBM-23X CBM-253 CBM-262 iDP-3221	iDP-3420 iDP-3421 iDP-3423	iDP-3550 iDP-3551	DP-460	iDP-562	iDP-3110 iDP-3111 CBM-910 CBM-920	CBM-510 CBM-520	CBM-710 CBM-720	CBM-750	CBM-820
RIBBON	IR-01RB/B/P							●			
	IR-41RB/B/P		●		●						
	IR-51RB/B/P					●					
	IR-61RB/B/P			●					●	●	
	IR-71P										
	IR-82P										●
	IR-91B/P						●				
WINDER	NW-58										
	NW-69										
	AW-2								●		
	AW-2FA										
	AW-3			●							
	AW-4										
	AW-5										
DRAWER	7XXDR								●	●	
	23XXDR		●	●	●	●					●

PRINTER MECHANISMS											
MODEL		MD-910	DP-400	DP-505	DP-600 DP-620	DP-730	LT-280	LT-282 LT-283 LT-286	LT-380	LT-480	LT-482
RIBBON	IR-01RB/B/P			●							
	IR-41RB/B/P		●								
	IR-51RB/B/P										
	IR-61RB/B/P				●						
	IR-71P					●					
	IR-82P										
	IR-91(L)P/B	●									
CUTTER	AC12X							●			
	AC13X								●		
	AC-22X						●	●			
	AC-23X		●						●		
	AC-2				●						
	AC-3			●							
	AC-5						●				
	AC-6									●	
	AC-7						●				
WINDER	NW-58			●							
	NW-69			●							
	AW-2										
	AW-2FA		●		●						
	AW-3										
	AW-4										●
	AW-5	●									