



Citizen CMP-20 and CMP-30

Product Presentation

**2 inch and
3 inch models**

**Fast: at least
80 mm/s**

**USB and
Serial
standard**

**Label Capable
on 3" model**



**Bluetooth
version**

**Magstripe &
Card readers**

**Wireless LAN
version**

Basic Specification



CMP-20



CMP-30

Print speed:	80 mm/s	100 mm/s
Print Class:	2 inches	3 inches
Print Width (<i>up to</i>):	48 mm	72 mm
Media Width:	58 mm	25 - 80 mm
Roll Size (OD):	48 mm	56 mm
Interfaces:	USB & Serial as standard (on all models) Bluetooth® and WiFi® as factory option	
Media Type:	Receipt	Receipt & Label versions
Weights & Dims:	.44 Kg, 96x136x58 mm	.63 Kg, 120x152x70 mm



CMP-20 Versions

Printer name	Part #	USB	Ser	BT	WiFi	Receipt	Label	MCR	ICR
CMP-20	1000821	●	●	✗	✗	●	✗	▼	▼
CMP-20B	1000822	●	●	●	✗	●	✗	▼	▼
CMP-20BM	1000823	●	●	●	✗	●	✗	●	▼
CMP-20BMC	1000824	●	●	●	✗	●	✗	●	●
CMP-20W	1000825	●	●	✗	●	●	✗	○	○



Standard feature on this model



Supported already by another standard model.



Special Order Only (minimum quantity applies)



Not possible on that model



CMP-30 Versions

Printer name	Part #	USB	Ser	BT	WiFi	Receipt	Label	MCR	ICR
CMP-30	1000826	●	●	▼	▼	●	▼	▼	○
CMP-30B	1000827	●	●	●	x	●	▼	▼	○
CMP-30BM	1000828	●	●	●	x	●	x	●	○
CMP-30W	1000829	●	●	x	●	●	▼	○	○
CMP-30L	1000830	●	●	▼	▼	●	●	○	○
CMP-30LB	1000831	●	●	●	x	●	●	○	○
CMP-30LW	1000832	●	●	x	●	●	●	○	○



Standard feature on this model



Supported already by another standard model.



Special Order Only (minimum quantity applies)



Not possible on that model

Features

Drop-in media
loading for easy use

Media Window
to view remaining paper

Simple interface
power and feed buttons

No paper core
needed (but can be used)

Shoulder Strap
mounting points

Colour Coded
buttons to open printer

Mag Stripe
& IC Card reader option



More features

Tough Case
polycarbonate with
elastomer overmould

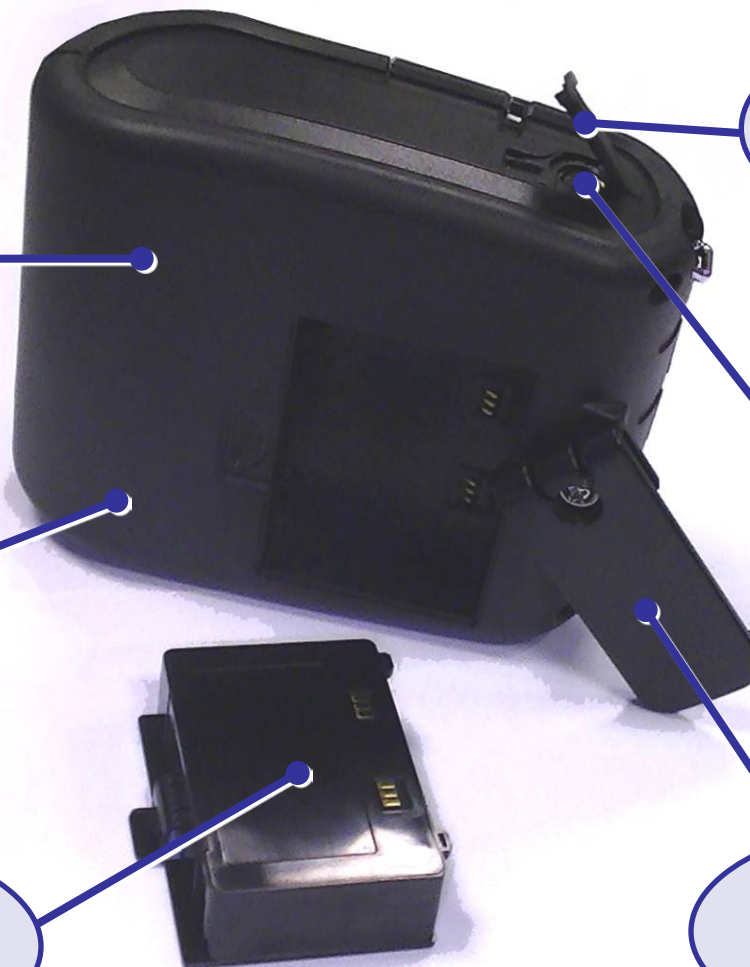
IP42 Protection
and 1.2m drop tests

Modular Battery
can be easily changed or
charged in printer

Rubber Covers
for interface/power ports

USB, Serial
standard on all models

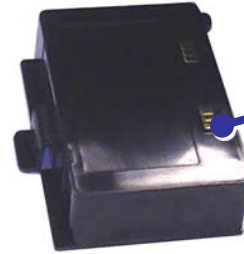
Belt Clip
rotates to allow for
battery changing



Accessories and Options



Leather Cases
for additional protection
including belt clips



Battery packs
Additional Units



AC Adapter
Additional units with
changeable plugs



Serial Cable
Additional Units



USB Cable



Car Charger

Power & Charging

Battery Indicator
3 LEDs indicate charge



Li-Ion Battery
1800 mAh on CMP 20
2200 mAh on CMP 30



Vehicle Charger
plugs directly to printer
or uses external charger



Charger LED
is Red when charging,
Green when charged



External Charger
Uses AC adapter or
vehicle charger



External Charger
Different versions for
CMP 20 and CMP 30



Technical Notes



CMP-20



CMP-30



CMP-30L

Emulations:

ESC / POS

ESC / POS

ESC / POS

CPCL compatible

CPCL compatible

Media Sensor:

Black mark

Black mark

Label gap + mark

Media Width:

fixed 58 mm

Adjustable from 25 - 80 mm

Standard Interfaces:

USB & Serial as standard (on all models)

Wireless Interfaces

Bluetooth® as factory option

WiFi® Wireless LAN as factory option

Only one wireless interface can be installed in a printer

Battery:

1800 mAh

2200 mAh

2200 mAh

Tested for a “working day” operation printing a 6-inch receipt every five minutes using WiFi connection without any ‘sleep’ functions enabled.

A battery must be installed for printer operation; it cannot operate from charger only.

Card Readers

Magnetic Card Reader

Also referred to as MCR or Swipe card

ISO 7811/2 and JIS standards.

Dual track (1+2, 2+3)

10-15 cm/s swipe speed

Factory Installed Option



IC Card Reader

Also known as chip card, smart card (SCR)
or ICR reads the gold pads on a card

9,600 bps read speed
internal 1-channel.

Factory Installed Option



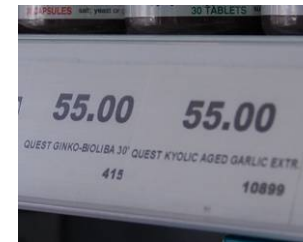
Where are they used? Typical Applications

- Mobile POS receipts
 - Print at tables in restaurants
 - Roaming sales at sports events
- Queue busting
 - Order taking in line – confirmation receipt
 - Order taking in line – content receipt
 - Full invoicing in line – point-of-sale flexibility
- Delivery notes
 - Confirmation of transaction or goods
 - Instant invoicing – immediate payment
- Service and repair
 - In-home or in-office repairs
 - Copy of actions carried out
 - Copy of parts used



More typical applications

- Price markdown
 - End of life discount – over labelling with discount barcode on specific items
 - Sales incentives – short term promotions
- Shelf labelling
 - Updating shelf-edge price labels / tags
 - Promotional labelling / tags
- Warehouse Labeling
 - Shipping labels
 - Pallet break-down labels
 - Shelf labels
- Train / bus / plane ticketing
 - Instant tickets or receipts
 - Conductor mobile ticketing
 - Queue busting at stations and airports
 - Mobile boarding card printing



More typical applications

- Taxi receipts
 - Semi-fixed mounting
 - Occasional use (stored in glove box)
- Law enforcement
 - Motoring offences
 - Parking Tickets
 - Public safety (fixed penalties)
- Hospitality
 - Queue busting
 - Roaming sales
 - Receipt printing
- Car rental
 - Car return
 - Check out



Why is “mobile” better than “fixed”

- Time and motion!
 - Time saving in walking to-and-from a fixed position printer
 - Reduce errors by instant, on-the-spot printing
 - Overall operational efficiency
- Conversely, why is ‘fixed’ better? *Generally:*
 - Lower product cost per unit
 - Larger media capacities
 - Faster print speeds
- To sell a mobile solution, the overall ROI must be shown
 - show total ROI not just features and prices
 - time savings, error reduction



Bluetooth® versus Wireless LAN

Two radio technologies for data communication: which is “better”?

Both exist to fulfil specific market requirements

- Bluetooth should be considered where:
 - USB, IrDA or Serial might have been used previously
 - There is a one-to-one relationship between hand-held and printer
 - The main operation is outdoors or truly roaming applications
- Wireless LAN should be considered where:
 - Ethernet printers are currently or previously used
 - There is a many-to-one relationship between ‘computers’ and the printer
 - There is a fixed area of operation like warehouse or shop



Wi-Fi™ is actually a trade name of the Wi-Fi Alliance and used as certification on products. But it is also now used as a generic term for any Wireless LAN (WLAN) technology. Bluetooth® is a registered trademark of the Bluetooth SIG Inc



Main Competitors

Thermal printer and generally narrow web

- Zebra
- Datamax / O'Neill / Extech (Dover Corporation)
- Intermec
- Bixolon (Samsung)
- Toshiba
- Fujitsu
- Star
- Woosim
- SII Seiko Instruments

Inkjet and generally A4 format printers do 'compete' in some applications:

- Hewlett Packard
- Brother
- Canon

OnLine Comparison

- Compare Citizen product features
 - Public website pages allow for Citizen printer comparison
- Compare against other manufacturers products for channel partners and distributors
 - Accessed from distributor area of website
 - Frequently updated with new information.



Compare your selected printers

<< Back to selector

Manufacturer And Model Number	Citizen CMP-10BT	Citizen CMP-20	Citizen CMP-20B	Zebra EM220	Zebra EM220
Item specification	 Click for more>				
Generally Available	Yes	Yes	Yes	Yes	Yes
Printer "Class" (Inches)	2	2	2	2	2
Print Width (mm)	48	48	48	48	48
Media Width (mm)	58	58	58	58	58
Print Speed (mm / second)	50	80	80	76	76
Resolution (dpi)	203	203	203	203	203
USB Interface	No	Yes	Yes	Yes	Yes
Serial (RS232C) Interface	Yes	Yes	Yes	Yes	Yes
IrDA Interface	Yes	No	No	No	No
Bluetooth Interface	Yes	Opt	Yes	Yes	Yes
Wireless LAN Interface	No	Opt	No	No	No
Magnetic Stripe Card Reader	Opt	Opt	Opt	Opt	Yes
IC Card (Smart Card) Reader	No	Opt	Opt	No	No
Print Method	DT	DT	DT	DT	DT
Receipt Printing	Yes	Yes	Yes	Yes	Yes
Label Printing	Yes	No	No	No	No
Internal Media Roll (mm)	50	48	48	40	40
Size cm3 (printer only)	760	757	757	447	447
Weight g (inc battery, no paper)	370	442	442	236	236
Battery Capacity (mAh)	2000	1900	1900	1200	1200
ESD/PEE Emulation	Yes	Yes	Yes	No	No

Printer Drivers and SDKs

Standard drivers for the following operating systems

- Windows 2000, XP, 2003, Vista and Windows 7
- APIs (Application Programming Interface) for above O/S as well
 - Sample applications and code for using APIs

SDKs (Software Development Kits)

- Windows CE and Windows Mobile
- Both for ESC/POS and CPCL emulation
- VB.NET and C#.NET programming environments



Batteries and Media Rolls “Performance”

Typical battery performance:

- Continuous printing* of 90 minutes using standard test pattern
- Equivalent to a print length of 162 metres
- Standby time of 24 hours (no printing or active data connections)

CMP-30 media rolls:

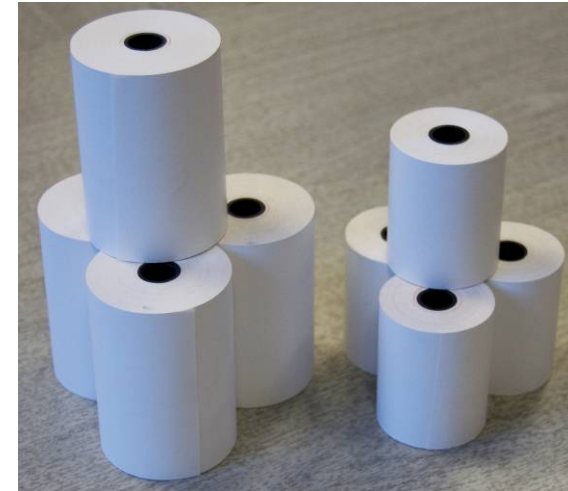
- Outside Diameter of 56 mm
- “Standard” paper is about 38 meters
- Approximately 250 x 6-inch receipts

CMP-20 media rolls:

- Outside Diameter of 48 mm
- “Standard” paper is about 27 meters
- Approximately 180 x 6-inch receipts

- Media capacity depends on paper weight (gsm), winding tightness, core size and other factors

- * Continuous printing requires additional cooling as printer is designed to print for 30 seconds per receipt.



Durability and IP Rating

Drop test of 1.2 metres on to a concrete floor

- Rubber elastomer is moulded over the sides and corners
- Provides drop and shock protection.
- Additional protection provided by leather case

IP42 Rating

- Protected against dirt and some moisture (dripping water)
- A “high” IP rating is intrinsically difficult for a printer
 - paper has to exit somewhere meaning water can get in!
 - Higher IP ratings = more frustrating user experience = less practical



What is an IP Rating?

IP means “**Ingress Protection**” – ability for an item to withstand the environment without it being compromised. IP is generally expressed as two numbers such as IP22

IP.solid.liquid

Protection against solids		Protection against liquids	
1	Items > 50.0 mm	1	Dripping water
2	Items > 12.5 mm	2	Dripping water when tilted up to 15°
3	Items > 2.5 mm	3	Spraying water
4	Items > 1.0 mm	4	Splashing water
5	Dust protected	5	Water jets
6	Dust tight	6	Powerful water jets
		7	Immersion up to 1 metre
		8	Immersion beyond 1 metre

So IP42 = Items >1mm and dripping water when tilted to 15°

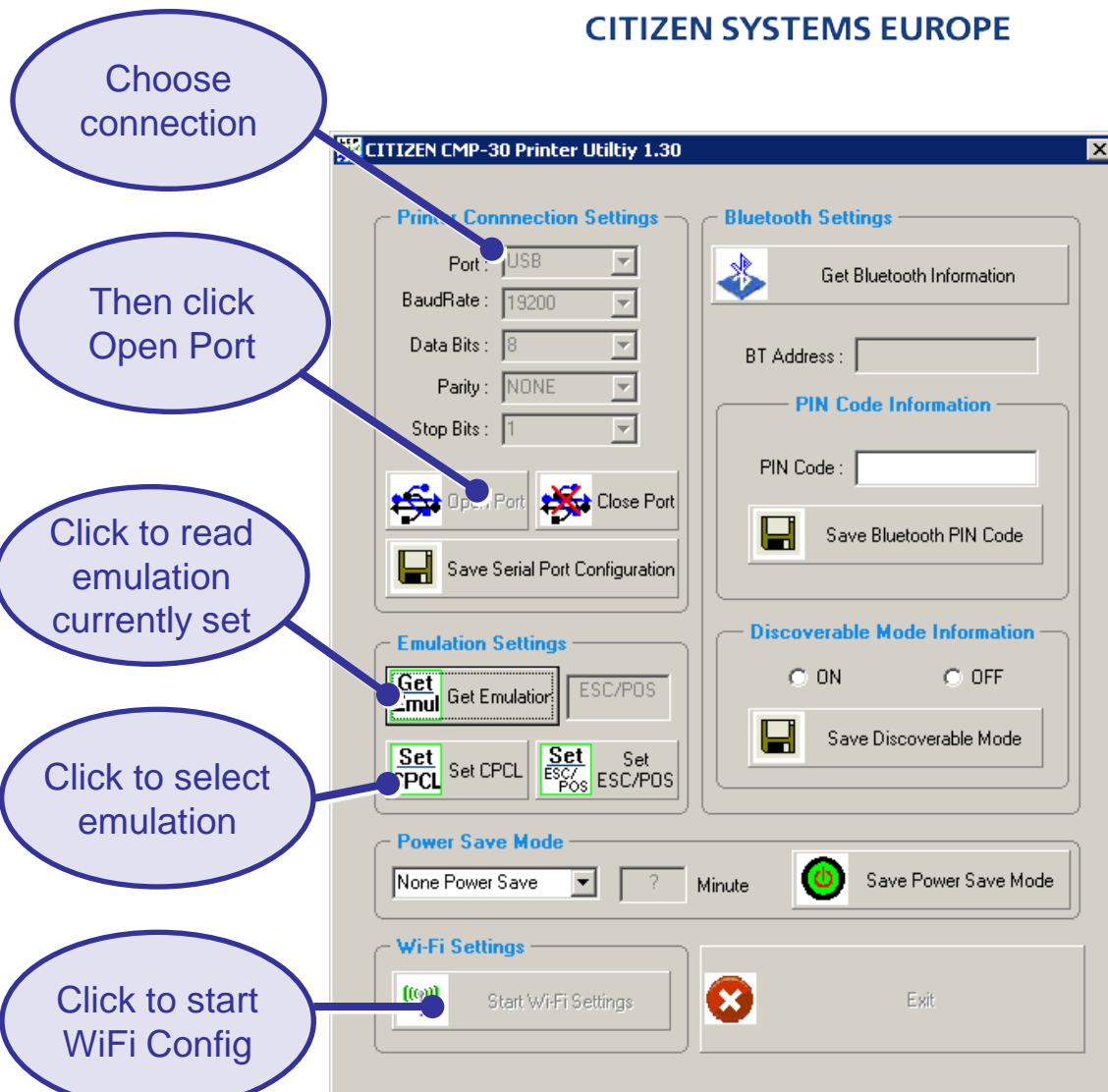
Or IP65 = Dust and water jet tight (like an outdoor electrical socket)

Configuration Utilities

Supplied on CD with printer (or
download from website)

Connect via USB and then run
the utility. Choose USB port and
then click “Open Port”

- Check emulation
- Select emulation (CMP30)
- Power saving configuration
- Bluetooth setup (when installed)
- Serial port configuration.



Configuration Utilities

Connect via USB and then run the utility. Do not connect straight away but click on “Start WiFi Settings”

- Configure SSID (Wifi access point name)
- Select IP address and other parameters
- Configure Encryption and Authentication
- Enter wireless Passwords and Keys
- DHCP not supported as it is of limited use on a wireless printer




Wi-Fi Settings Dialog

Port and Wi-Fi Information

Port Information

Port: BaudRate:
Data Bits: Parity:
Stop Bits:

Wi-Fi Information

SSID:  Open Port  Close Port
IP:
NetMask:
Gateway:
DNS:
Wi-Fi Mode:
Wi-Fi Channel:
Wi-Fi Encryption:
Wi-Fi Authentication: Using KEY ID:
Progress: 
KEY ID 1:
KEY ID 2:
KEY ID 3:
KEY ID 4:
WPA Authentication
WPA Authentication: WPA Encryption:
WPA Key:
WPA Key is characters of 8 ~ 32 length.

In-Box Contents

- Printer
- Battery pack
- AC Adapter (with European mains 'clip')
- Sample roll of paper (or labels on CMP-30L)
- RS232 Serial cable (9-pin)
- CD ROM and Quick Start Guide
- Belt clip and fixing screw
- Some will include additional UK or other mains plug 'clips' designed specifically for the AC adapter. Users can interchange these for themselves.



- CMP-20 box: 285 x 183 x 98 mm
- CMP-30 box: 347 x 265 x 98 mm
- 5 printer boxes per shipping carton

Thank You!