

ACAPO Braille Embosser Comparison							
							Comments
Model	ViewPlus Columbia		IndexBraille Basic-D V5		ETC Juliet 120		
Manufacturer	ViewPlus Technologies		IndexBraille		Enabling Technologies		
Specifications	Advertised	Real	Advertised	Real	Advertised	Real	
Printing							
Paper width	7" a 12.5"	7" - 11.5" (w/o strips)	100-325mm (4" - 12.8")	4" - 11.5" (w/o strips)	100-330mm (4" - 13")	4" - 11.5" (w/o strips)	Maximum width advertised vs actual maximum width, removing the side strips.
Paper length	Not specified	Tested with paper up to 12"	1" - 17"	Tested with paper up to 12"	1" - 24"	Tested with paper up to 12"	All common paper formats are supported.
Max. CPL (11" paper)		43 CPL		46 CPL		46 CPL	Max. CPL using 11" width paper
Paper type	Continuous paper (tractor fed)	Continuous paper (tractor fed)	Continuous paper (tractor fed)	Continuous paper (tractor fed)	Continuous paper (tractor fed)	Continuous paper (tractor fed)	Tractor-fed paper is the most reliable form of paper feed.
Paper weight	90g/m ² - 200g/m ²	tested with 140g/m2 and 160g/m2	120g/m ² - 180g/m ²	tested with 140g/m2 and 160g/m2	120g/m ² - 180g/m ²	tested with 140g/m2 and 160g/m2	In the tests performed, paper of 140g/m2 and 160g/m2 was used.
Single/double side	Yes	Yes	Yes	Yes	Yes	Yes	All embossers allow single and double-sided (interpoint) printing.
Interpoint	Yes	Yes	Yes	Yes	Yes	Yes	All embossers allow interpoint.
Paper orientation (H/V)	Portrait, Landscape, inverted Portrait , inverted Landscape	tested on vertical.	Horizontal, Vertical	tested on vertical.	Horizontal, Vertical	tested on vertical.	Both are possible on the three embossers.
Sideways printing	-	-	Yes, Z-Folding sideways		Yes, Z-Folding sideways		When using Z-folding sideways the Braille is embossed vertically on the page, supplying an alternative binding option and the need to separate only half of the amount of perforations compared to standard Z-folding.
Print formats	-	-	Booklet, Newspaper		Booklet, Newspaper		Additional printing formats. ViewPlus does not state any.
Other print formats	-	-	Z - Folding double/single/sideways		Z - Folding double/single/sideways		When the printed document is finished, the user can take the paper bundle, separate the perforation between continuous pages and directly bind it without needing to reorganize the pages.
Print quality	Best, standard, Draft	tested in standard and draft modes	Normal, High, Draft	tested in high and draft modes	Normal, High, Draft	tested in high and draft modes	3 levels of print quality/speed.
Dot height	Adjustable in 3 heights; Graphical mode: Up to 7 heights	Text mode tested in "normal", graphical mode tested using 7 dot heights		only 1 height		only 1 height	This option, even though it was used by ViewPlus, has never shown itself as an added value to ACAPO. It is preferable to have a well-defined and uniform dot.
Tactile resolution		Up to 17 DPI		20 DPI		20 DPI	Maximum tactile resolution is similar among the 3 embossers.
Graphical resolution		Up to 100 DPI		50 DPI		50 DPI	ViewPlus Columbia announces a graphical resolution of 100 DPI, but this only means that it can put the dot on a 100 DPI grid.
Braille cell	6/8 dots, 5 different standard spacings	tested with 6 dots, 2.5mm	6/8 dots, spacing 2.2 / 2.5 / 3.2mm	tested with 6 dots, 2.5mm	6/8 dots, spacing 2.2 / 2.5 / 3.2mm	tested with 6 dots, 2.5mm	The 3 embossers allow Braille cells of 6 and 8 dots, with variable spacing.
Printing speed							
CPS	Max. 120 CPS	Max. 59-102 CPS (with limitations)	Max. 120 CPS	Max. 137,6 CPS	Max. 120 CPS	Max. 138,2 CPS	The IndexBraille Basic-D V5 and ETC Juliet 120 are clearly faster than the ViewPlus Columbia. The latter still suffers from irregular speed reductions during printing.
PPH	Max. 400 PPH	Max. 276 PPH (with limitations)	Max. 400 PPH	Max. 378 PPH	Max. 400 PPH	Max. 377 PPH	The same applies. The ViewPlus Columbia is the slowest embosser by a significant margin.
Drivers							
Windows	Yes	Tested on Windows 10	Yes	Tested on Windows 10	Yes	Tested on Windows 10	Both IndexBraille Basic-D V5 and ETC Juliet 120 support Windows, Mac OS and Linux (Debian/Ubuntu). ViewPlus Columbia only supports Windows and Mac OS.
Mac OS		Yes		Yes		Yes	
Linux		No	Yes (Debian, Ubuntu)		Yes (Debian, Ubuntu)		
Included software							
Additional software	TSS - Tiger Software Suite, that includes VP Formatter, Tiger Designer (graphics) and VP Translator	Software works reasonably well, but the translation for Braille in MS Word is time consuming.	lbPrint (drag&drop print utility)	IdB technology embedded in IndexBraille Basic-D V5, which dispenses with translator.	Firebird (graphics)	Direct-Braille technology embedded, which dispenses translator.	ViewPlus Columbia: TSS is interesting and works reasonably well, although it is very slow to translate long texts, and may present some problems.
Braille translation software	Yes, TSS	Translation in MS Word and MS Excel	Yes, idB - IndexBraille Direct Braille	Direct onboard translation.	Direct-Braille	Direct onboard translation.	Direct-Braille Technology used by both IndexBraille and ETC facilitate the process.
File types supported	.doc, .pdf, .txt, .brf	tested .doc, .pdf, .txt, .brf	.doc, .pdf, .txt, .brf	tested .doc, .pdf, .txt, .brf	.doc, .pdf, .txt, .brf	tested .doc, .pdf, .txt, .brf	limitations have been noted in the .docx format
Graphical software	Yes, Tiger Designer (included in TSS)	License included on TSS (Tiger Software Suite).	TactileView	TactileView, but requires a separate license.	Yes, Firebird, included.	The included SW Firebird is free of charge. Easy to use, direct printing possible.	ViewPlus offers Tiger Designer free of charge, and ETC offers Firebird. IndexBraille makes TactileView available, but it requires an additional license.
Local interface							
Control panel	User interface is minimalist, consisting only of 4 keys and 4 LEDs, with double-function keys.		Sophisticated panel, including 13 keys, some illuminated, as well as 12 descriptions that will lit, in order to signal various status and errors.		Sophisticated panel, including 13 keys, some illuminated, as well as 12 descriptions that will lit, in order to signal various status and errors.		Both IndexBraille Basic-D V5 and ETC Juliet 120 offer a much more sophisticated, practical and user friendly control panel.
Braille on control panel, illumination		No	Yes	illuminated and Braille-labelled keys.	Yes	illuminated and Braille-labelled keys.	Control panel featuring illuminated and Braille-labelled keys on both IndexBraille Basic-D V5 and ETC Juliet 120.
local interface usability	Limited interface, with 4 keys and 4 LEDs. Dual function keys, making menu navigation less fluid.		Good, with full interface, and shortcuts to the menus. Navigation could be more fluid.		Good, with full interface, and shortcuts to the menus. Navigation could be more fluid.		IndexBraille Basic-D V5 and ETC Juliet 120 control panels are much more "user friendly"
Voice interface	Yes, but requires external amplified speakers.	Good overall, clear voice, although there are unverbalized options/messages. Requires external amplified speakers.	Onboard speaker.	Good, although not all messages are translated into Portuguese.	Onboard speaker.	Good, although not all messages are translated into Portuguese.	Voice interfaces are reasonably well implemented, but they have flaws: in ViewPlus not all messages are verbalized, and in IndexBraille and ETC not all messages are translated to Portuguese.

Connectivity							
USB	Yes, onboard	USB device, only. USB host only with TigerBox.	Yes, onboard	Yes, USB device and USB host.	Yes, onboard	Yes, USB device and USB host.	USB connection meets expectations, but only IndexBraille and ETC have USB host port, so these are the only ones that allow direct printing via USB stick. Only on IndexBraille Basic-D V5 and ETC Juliet 120. Network operation performed ok on the 3 embossers. Operation OK on both IndexBraille and ETC. ViewPlus only with TigerBox. Printing from mobile devices is possible from the 3 embossers under test. Some limitations on all embossers with iOS.
USB pen printing	Yes, with TigerBox	Only with TigerBox.	Yes, onboard	OK, via Menu.	Yes, onboard	OK, via Menu.	
Ethernet network	Yes, onboard	OK, onboard.	Yes, onboard	OK, onboard.	Yes, onboard	OK, onboard.	
Wi-Fi network	Yes, with TigerBox	Wi-Fi Direct mode or infrastructure	Yes, onboard	Configurable via WebApp or via WPS	Yes, onboard	Configurable via WebApp or via WPS	
Mobile devices	Yes, with TigerBox	Yes (Android, iOS)	Yes	Yes (Android, iOS)	Yes (Android, iOS)	Yes (Android, iOS)	
Bluetooth	Yes, with TigerBox	Android, iOS (<i>iPrint</i>)	Yes	Yes (Android only)	Yes (Android only)	Yes (Android only)	
Physical characteristics							
Dimensions	557x275x158mm		520x260x130mm		520x260x130mm		The ViewPlus Columbia is the heaviest and the bulkiest of the 3 embossers under test.
Net volume	Approx.. 24.2dm ³		Approx.. 17.58dm ³		Approx.. 17.58dm ³		
Weight	9kg		7.6kg		7.6kg		
Power supply							
Power supply voltages	100-240V a.c. 50/60Hz	Tested at 115V a.c. e 230V a.c.	100-240V a.c. 50/60Hz	Tested at 115V a.c. e 230V a.c.	100-240V a.c. 50/60Hz	Tested at 115V a.c. e 230V a.c.	Similar supply voltages ("universal" range).
Max. Power consumption	185W - 200W	< 80W	140W	< 95W	140W	< 95W	During stand-by, the ViewPlus Columbia always consumes more power than the other embossers.
Stand-by power consumption	10W	9W	5W	7.5W	5W	8.2W	
OFF mode power consumption	-	0W	0.05W	< 0.1W	0.05W	< 0.1W	
Climatic							
Temperature and humidity	15°C to 35°C / 20%-80% RH	No tests were performed.	-	No tests were performed.	-	No tests were performed.	No climatic tests were performed.
Acoustic noise							
Noise level	<= 70dB(A)	80.8 dB(A)	<= 80dB(A)	83.4 dB(A)	<= 80dB(A)	85.0 dB(A)	All embossers are noisier than advertised, with special emphasis on ViewPlus, which exceeds the advertised value by about 10,8dB. However, in absolute terms, it is the least noisy.
Sound enclosure		Yes		Yes (<=63dB(A))		Yes (<=63dB(A))	Sound enclosures can be purchased for the 3 embossers, but ViewPlus is omitted as to the noise reduction achieved.
CE Marking							
CE Marking	Yes	EMC tests were performed, as well as basic safety analysis	Yes		Yes		All 3 embossers comply with the Harmonised Standards regarding EMC and LV Directives.
Additional features							
Webserver	Yes, via TigerBox		Yes, BrailleApp		Yes		Webserver works well on the 3 embossers.
Setup and monitoring	Via webserver and via local interface		Via webserver, local interface, and remotely		Via webserver, local interface, and remotely		IndexBraille and ETC add remote access.
Printing	H, V		H, V, sideways, booklet, Z-Folding		H, V, sideways, booklet, Z-Folding		IndexBraille and ETC are more versatile.
Remote setup and monitoring	Yes, via TigerBox		Yes, via BrailleApp		Yes, via Webserver		All embossers allow remote setup and monitorization.
Remote access via internet	Only for update finding		Yes, built-in remote support, or TeamViewer Support		Yes, built-in remote support		IndexBraille and ETC are more versatile because they have built-in remote support.
Firmware update	Yes, executable file on PC (via USB).		Yes, USB pen, Ethernet (remote). Very simple and effective process.		Yes, USB pen, Ethernet (remote). Very simple and effective process		IndexBraille and ETC are more versatile because they allow remote or USB flash update. With ViewPlus you need to download a utility that connects to the printer via USB.
Error messages	Error messages flagged by LEDs, audio, and in PC		Error messages flagged by the status of LEDs, audio, and on the PC		Error messages flagged by the status of LEDs, audio, and on the PC		Similar on the three embossers.
Price							
Price	3595,00 USD / 3262,00€		3 295,00 €		4495,00 USD / 4028,00 €		Prices as of December 2019
Warranty							
Warranty	1 year		4 years		1 year		The IndexBraille Basic-D V5 is the one with the widest standard warranty.
Support							
Support	Ticket-based support service from the ViewPlus website. Follow-up by email notifications.		Support from the website, remote support, TeamViewer support, or via distributor.		Support from the website, remote support, or via distributor.		IndexBraille adds remote support (also available in ETC) and via TeamViewer.
Remote support							
Remote support	No		Yes, via SSH tunnel		Yes, via SSH tunnel		Support for the IndexBraille printer from anywhere in the world, simply connect to the remote support function built into the V5 printer.