



HP Latex Dual Roll Kit

User Guide

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1 Introduction


Purpose

This document describes the installation and use of the HP Latex Dual Roll Kit (CZ060A). For information about using your printer, please refer to the corresponding User Guide or Maintenance and Troubleshooting Guide.

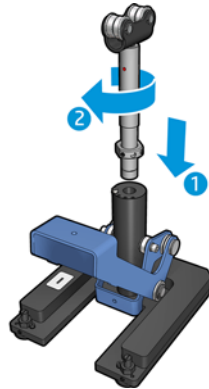
 **NOTE:** To use the HP Latex Dual Roll Kit on the HP Scitex LX800, LX820 and LX850 Printers, first lift the printer to its maximum height by lowering the feet — the wheels will be about 23 mm off the floor. Refer to your Printer's User Guide for details.

2 Installing the Dual Roll Center Support

Assemble the Dual Roll Center Support

 **NOTE:** There are two Dual Roll Center Supports. The support base marked “I” is for the input dual-roll spindle at the rear of the printer. Use the longer support shaft with the support base marked “I”. The support base marked “O” is for the output dual-roll spindle at the front. Use the shorter support shaft with this support base.

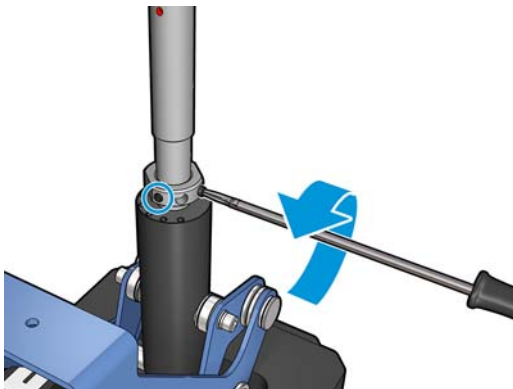
1. To assemble the input Dual Roll Center Support (marked I), insert the top shaft into the support base and turn.



2. Remove the screw in the support base. Keep the screw in a safe place to use later.




3. Loosen the 2 screws fixing the nut on the top shaft.



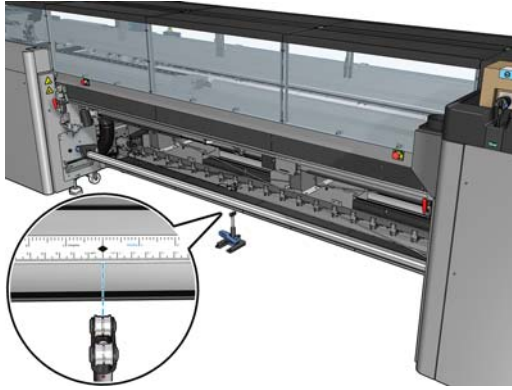
4. Repeat the process for the output Dual Roll Center Support (marked with an O) with the shorter support shaft.

Calibrate the Dual Roll Center Support

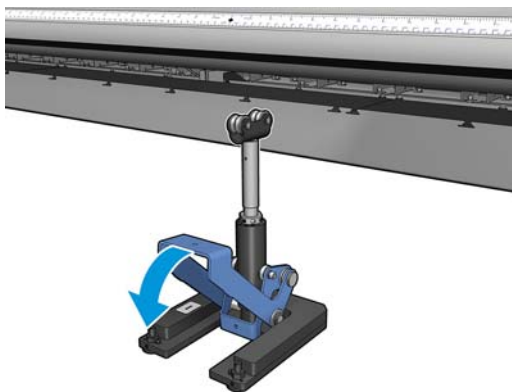
1. Load a single roll spindle in the the printer.

 **TIP:** Use a single roll spindle to accurately calibrate the height of the Dual Roll Center Support. Do not use the Dual-Roll Spindle as its heavier weight and it may not be level along its length.

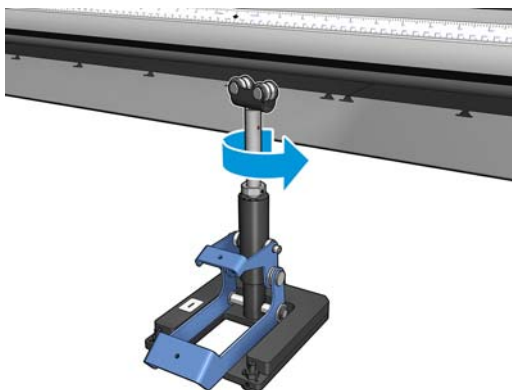
2. Place the Dual Roll Center Support under the center of the spindle.



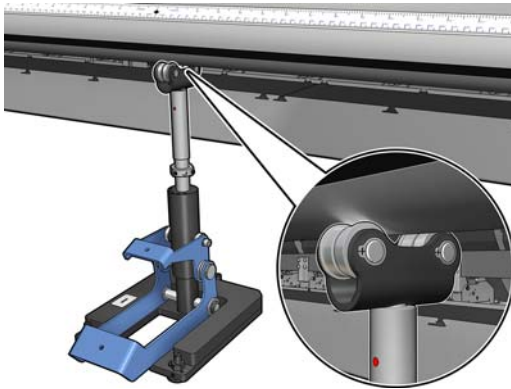
3. Pull down the lever.




4. Adjust the height of the support by turning it counterclockwise. The bearings at the top of the Dual Roll Center Support must touch the spindle



5. Manually turn the spindle 360°. Make sure there is full contact between the bearings on the support and the face of the spindle except along the ruler groove and pneumatic groove. Turn the bearings on the support. If you cannot turn them, lower the height of the support.

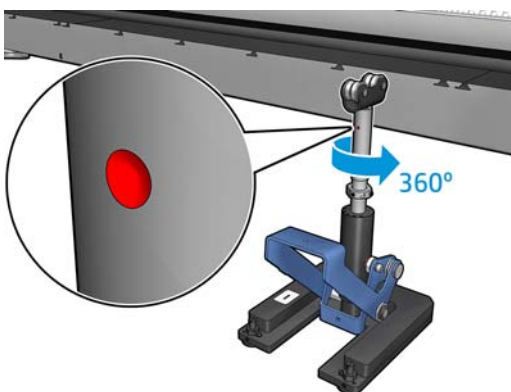


 **NOTE:** If a red groove is visible in the thread of the support shaft, it has reached its maximum limit. Do not turn. Adjust the height using the three height screws under the support base. Tighten the three hexagonal nuts on the top of the support base to lock the three height screws.

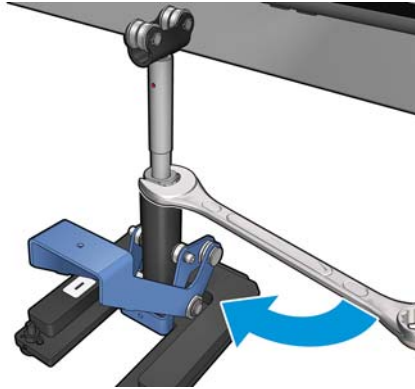
6. Pull down the small lever.



7. Lift the base nut one extra turn by rotating counterclockwise. There are two red dots in the central shaft for your reference.

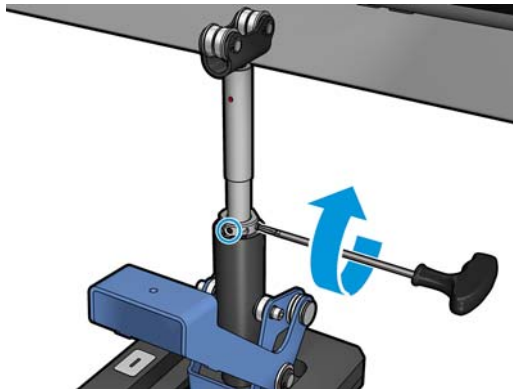


8. Tighten the base nut.

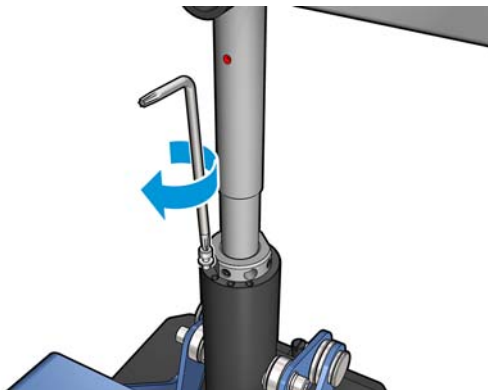


9. Tighten the two screws to fix the final position of the Dual Roll Center Support.

 **NOTE:** Hold the support shaft firmly in position when tightening screws.



10. Insert the screw into the support base.

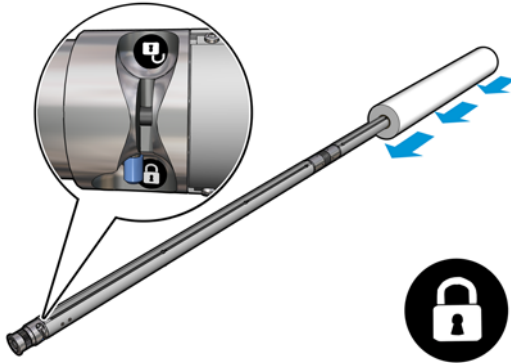


11. Remove the single roll spindle.
12. Repeat the process for calibration of the front Dual-Roll Spindle.

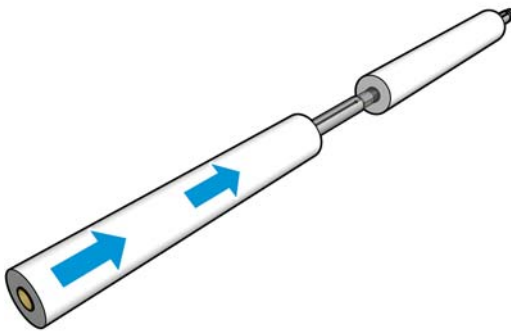
3 Loading the Dual-Roll Spindle

Loading the Dual-Roll Spindle — HP Latex 3000 Printer

1. Insert the first roll on the rear spindle.




2. Insert the second roll on the rear spindle.

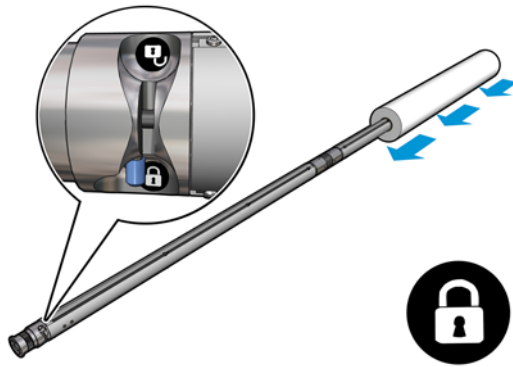


3. Center both rolls, using the marks on both sides of the center of the spindle. The input and output rolls should be positioned identically on their respective parts of the spindle.
4. Inflate the valves at both ends by connecting the air gun to the pneumatic connectors.

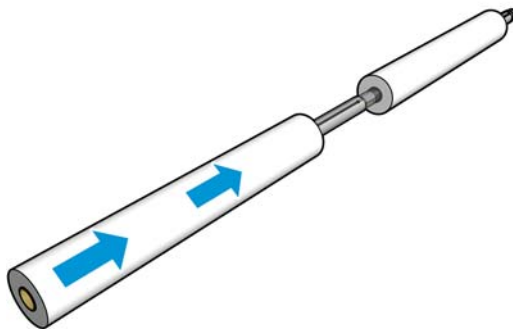
Loading the Dual-Roll Spindle — HP Latex LX800, LX820, LX850 Printers

 **IMPORTANT:** Load the roll on the right side of the spindle as far to the right as possible. The printer will not be able to print if the substrate loaded in the printer does not cover the vacuum system, the curing heater and the substrate-advance sensor (OMAS).


1. Insert the first roll on the rear spindle.




2. Insert the second roll on the rear spindle.




3. Center both rolls, using the marks on both sides of the center of the spindle. The input and output rolls should be positioned identically on their respective parts of the spindle.
4. Inflate the valves at both ends by connecting the air gun to the pneumatic connectors.
5. Repeat the procedure for the output Dual Roll Spindle using empty cores.

 **NOTE:** The position of the edge of the rolls on the input and output dual roll spindles should be identical.

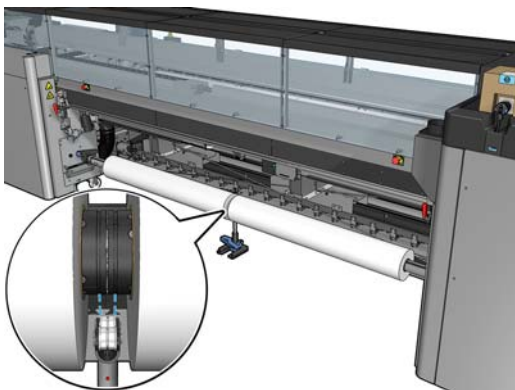
 **IMPORTANT:** Before you feed the substrate from the input to the output dual roll spindle you must position the Dual Roll Center Supports. The absence of this accessory could increase the risk of a printhead crash, which decreases printhead life as well as spoiling the current print.

Position the Dual Roll Center Support

 **TIP:** The spindle and two rolls of substrate are heavy. You are recommended to use a forklift to move it into position.

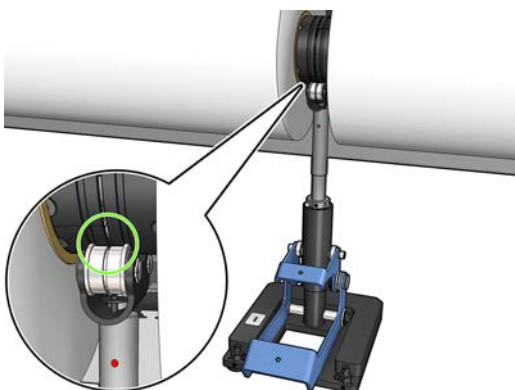
1. Place the dual-roll spindle on the printer with the long lever up.

2. Position the Dual Roll Center Support under the center of the dual roll spindle.



3. Pull down the long lever.

When engaging the support, make sure that the position of the support bearings corresponds to the grooves of the differential cover and that the two sets of bearings are approximately the same distance from the middle of the spindle to maximize their contact.



4. Repeat the procedure for the output Dual Roll Spindle.
5. You can now feed the substrates into the printer.
6. Once the substrate is aligned, automatic substrate edge detection can be run. If this automatic process fails, or if you are using a roll width not within the specifications (see [Specifications on page 9](#)), introduce the substrate edge values manually.

Physically measure the position of the substrate edges on the Dual Roll Spindle ruler.

The Dual Roll Spindle ruler , in inches and centimeters, uses positive (+) signs on one side and negative (-) signs on the other side. Check the measured values in the [Appendix — Conversion Tables on page 10](#), to obtain the values you can insert manually in the Internal Print Server.

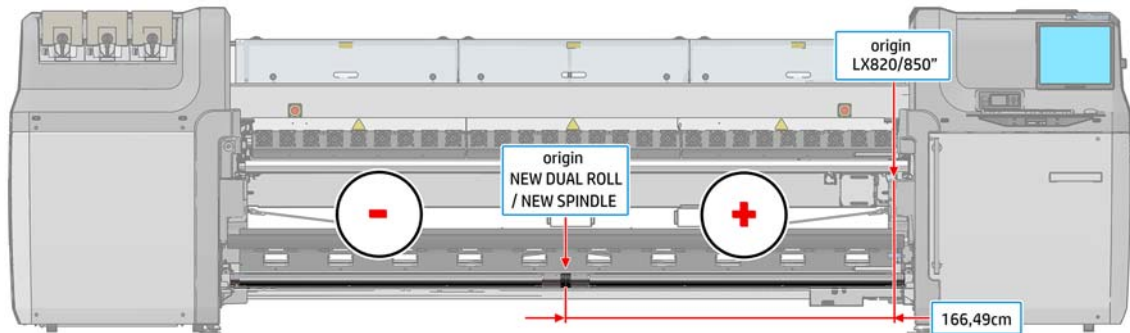
4 Specifications

Table 4-1 Dual Roll Spindle Specifications

	Latex 3000	LX800, LX820, LX850
Minimum roll width	635 mm (25 in)	914 mm (36 in)
Maximum roll width	2 x 1.60 m (2 x 63 in)	2 x 1.52 m (2 x 60 in)
Minimum gap between rolls	40 mm (1.6 in)	152 mm (6 in)
Maximum roll diameter	300 mm (11.8 in)	250 mm (9.8 in)
Maximum total weight of both rolls	2 x 70 kg (2 x 154 lb)	2 x 55 kg (2 x 121 lb)

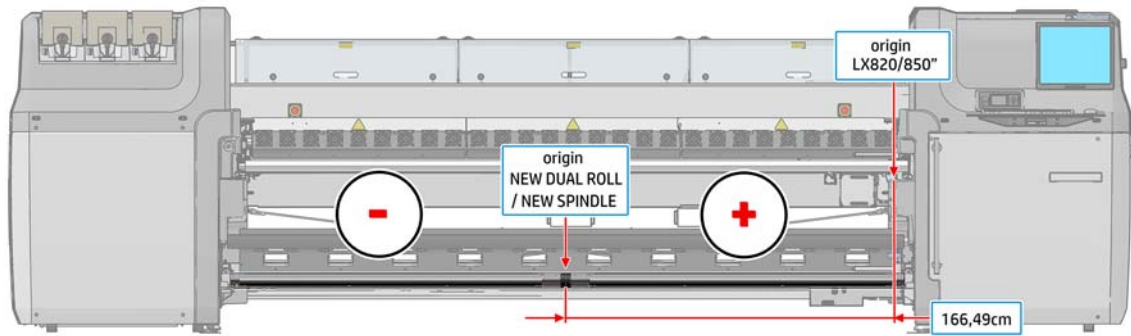
5 Appendix — Conversion Tables

Table 5-1 Conversion Tables (for LX800, LX820 and LX850)



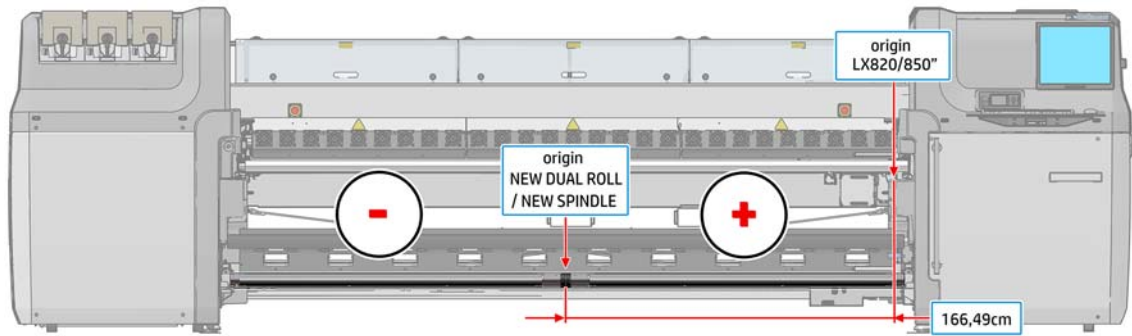
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-0.79	66.34	-2.00	168.49	0.79	64.76	2.00	164.49
-4.80	70.35	-12.20	178.69	4.80	60.75	12.20	154.29
-5.00	70.55	-13.00	179.49	5.00	60.55	13.00	153.49
-5.25	70.80	-13.50	179.99	5.25	60.30	13.50	152.99
-5.50	71.05	-14.00	180.49	5.50	60.05	14.00	152.49
-5.75	71.30	-14.50	180.99	5.75	59.80	14.50	151.99
-6.00	71.55	-15.00	181.49	6.00	59.55	15.00	151.49
-6.25	71.80	-15.50	181.99	6.25	59.30	15.50	150.99
-6.50	72.05	-16.00	182.49	6.50	59.05	16.00	150.49
-6.75	72.30	-16.50	182.99	6.75	58.80	16.50	149.99
-7.00	72.55	-17.00	183.49	7.00	58.55	17.00	149.49
-7.25	72.80	-17.50	183.99	7.25	58.30	17.50	148.99
-7.50	73.05	-18.00	184.49	7.50	58.05	18.00	148.49
-7.75	73.30	-18.50	184.99	7.75	57.80	18.50	147.99
-8.00	73.55	-19.00	185.49	8.00	57.55	19.00	147.49
-8.25	73.80	-19.50	185.99	8.25	57.30	19.50	146.99
-8.50	74.05	-20.00	186.49	8.50	57.05	20.00	146.49
-8.75	74.30	-20.50	186.99	8.75	56.80	20.50	145.99
-9.00	74.55	-21.00	187.49	9.00	56.55	21.00	145.49
-9.25	74.80	-21.50	187.99	9.25	56.30	21.50	144.99
-9.50	75.05	-22.00	188.49	9.50	56.05	22.00	144.49
-9.75	75.30	-22.50	188.99	9.75	55.80	22.50	143.99
-10.00	75.55	-23.00	189.49	10.00	55.55	23.00	143.49
-10.25	75.80	-23.50	189.99	10.25	55.30	23.50	142.99
-10.50	76.05	-24.00	190.49	10.50	55.05	24.00	142.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



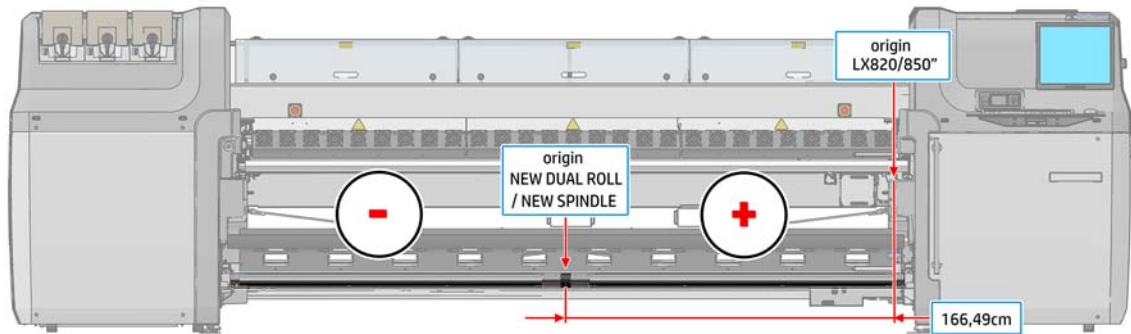
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-10.75	76.30	-24.50	190.99	10.75	54.80	24.50	141.99
-11.00	76.55	-25.00	191.49	11.00	54.55	25.00	141.49
-11.25	76.80	-25.50	191.99	11.25	54.30	25.50	140.99
-11.50	77.05	-26.00	192.49	11.50	54.05	26.00	140.49
-11.75	77.30	-26.50	192.99	11.75	53.80	26.50	139.99
-12.00	77.55	-27.00	193.49	12.00	53.55	27.00	139.49
-12.25	77.80	-27.50	193.99	12.25	53.30	27.50	138.99
-12.50	78.05	-28.00	194.49	12.50	53.05	28.00	138.49
-12.75	78.30	-28.50	194.99	12.75	52.80	28.50	137.99
-13.00	78.55	-29.00	195.49	13.00	52.55	29.00	137.49
-13.25	78.80	-29.50	195.99	13.25	52.30	29.50	136.99
-13.50	79.05	-30.00	196.49	13.50	52.05	30.00	136.49
-13.75	79.30	-30.50	196.99	13.75	51.80	30.50	135.99
-14.00	79.55	-31.00	197.49	14.00	51.55	31.00	135.49
-14.25	79.80	-31.50	197.99	14.25	51.30	31.50	134.99
-14.50	80.05	-32.00	198.49	14.50	51.05	32.00	134.49
-14.75	80.30	-32.50	198.99	14.75	50.80	32.50	133.99
-15.00	80.55	-33.00	199.49	15.00	50.55	33.00	133.49
-15.25	80.80	-33.50	199.99	15.25	50.30	33.50	132.99
-15.50	81.05	-34.00	200.49	15.50	50.05	34.00	132.49
-15.75	81.30	-34.50	200.99	15.75	49.80	34.50	131.99
-16.00	81.55	-35.00	201.49	16.00	49.55	35.00	131.49
-16.25	81.80	-35.50	201.99	16.25	49.30	35.50	130.99
-16.50	82.05	-36.00	202.49	16.50	49.05	36.00	130.49
-16.75	82.30	-36.50	202.99	16.75	48.80	36.50	129.99
-17.00	82.55	-37.00	203.49	17.00	48.55	37.00	129.49
-17.25	82.80	-37.50	203.99	17.25	48.30	37.50	128.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



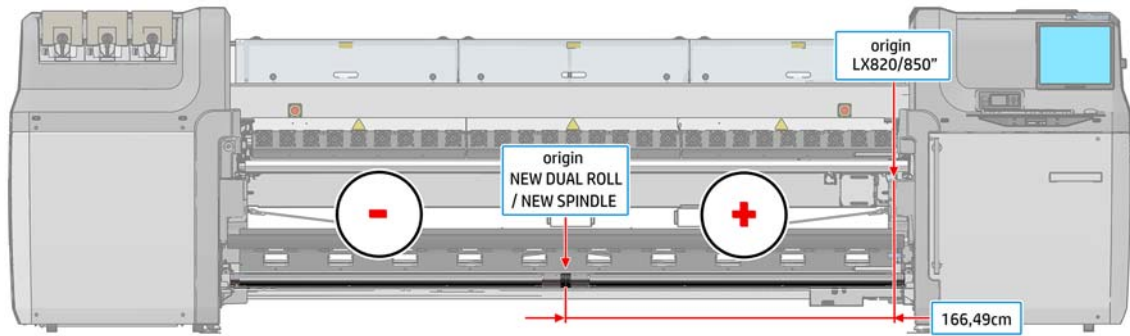
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-17.50	83.05	-38.00	204.49	17.50	48.05	38.00	128.49
-17.75	83.30	-38.50	204.99	17.75	47.80	38.50	127.99
-18.00	83.55	-39.00	205.49	18.00	47.55	39.00	127.49
-18.25	83.80	-39.50	205.99	18.25	47.30	39.50	126.99
-18.50	84.05	-40.00	206.49	18.50	47.05	40.00	126.49
-18.75	84.30	-40.50	206.99	18.75	46.80	40.50	125.99
-19.00	84.55	-41.00	207.49	19.00	46.55	41.00	125.49
-19.25	84.80	-41.50	207.99	19.25	46.30	41.50	124.99
-19.50	85.05	-42.00	208.49	19.50	46.05	42.00	124.49
-19.75	85.30	-42.50	208.99	19.75	45.80	42.50	123.99
-20.00	85.55	-43.00	209.49	20.00	45.55	43.00	123.49
-20.25	85.80	-43.50	209.99	20.25	45.30	43.50	122.99
-20.50	86.05	-44.00	210.49	20.50	45.05	44.00	122.49
-20.75	86.30	-44.50	210.99	20.75	44.80	44.50	121.99
-21.00	86.55	-45.00	211.49	21.00	44.55	45.00	121.49
-21.25	86.80	-45.50	211.99	21.25	44.30	45.50	120.99
-21.50	87.05	-46.00	212.49	21.50	44.05	46.00	120.49
-21.75	87.30	-46.50	212.99	21.75	43.80	46.50	119.99
-22.00	87.55	-47.00	213.49	22.00	43.55	47.00	119.49
-22.25	87.80	-47.50	213.99	22.25	43.30	47.50	118.99
-22.50	88.05	-48.00	214.49	22.50	43.05	48.00	118.49
-22.75	88.30	-48.50	214.99	22.75	42.80	48.50	117.99
-23.00	88.55	-49.00	215.49	23.00	42.55	49.00	117.49
-23.25	88.80	-49.50	215.99	23.25	42.30	49.50	116.99
-23.50	89.05	-50.00	216.49	23.50	42.05	50.00	116.49
-23.75	89.30	-50.50	216.99	23.75	41.80	50.50	115.99
-24.00	89.55	-51.00	217.49	24.00	41.55	51.00	115.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



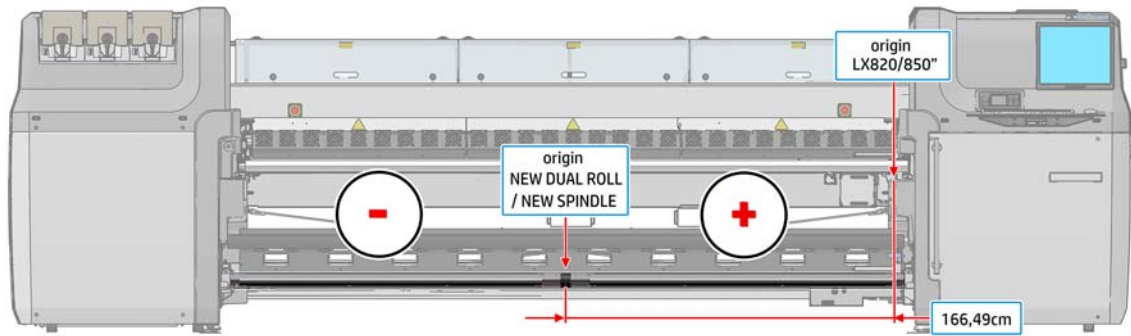
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-24.25	89.80	-51.50	217.99	24.25	41.30	51.50	114.99
-24.50	90.05	-52.00	218.49	24.50	41.05	52.00	114.49
-24.75	90.30	-52.50	218.99	24.75	40.80	52.50	113.99
-25.00	90.55	-53.00	219.49	25.00	40.55	53.00	113.49
-25.25	90.80	-53.50	219.99	25.25	40.30	53.50	112.99
-25.50	91.05	-54.00	220.49	25.50	40.05	54.00	112.49
-25.75	91.30	-54.50	220.99	25.75	39.80	54.50	111.99
-26.00	91.55	-55.00	221.49	26.00	39.55	55.00	111.49
-26.25	91.80	-55.50	221.99	26.25	39.30	55.50	110.99
-26.50	92.05	-56.00	222.49	26.50	39.05	56.00	110.49
-26.75	92.30	-56.50	222.99	26.75	38.80	56.50	109.99
-27.00	92.55	-57.00	223.49	27.00	38.55	57.00	109.49
-27.25	92.80	-57.50	223.99	27.25	38.30	57.50	108.99
-27.50	93.05	-58.00	224.49	27.50	38.05	58.00	108.49
-27.75	93.30	-58.50	224.99	27.75	37.80	58.50	107.99
-28.00	93.55	-59.00	225.49	28.00	37.55	59.00	107.49
-28.25	93.80	-59.50	225.99	28.25	37.30	59.50	106.99
-28.50	94.05	-60.00	226.49	28.50	37.05	60.00	106.49
-28.75	94.30	-60.50	226.99	28.75	36.80	60.50	105.99
-29.00	94.55	-61.00	227.49	29.00	36.55	61.00	105.49
-29.25	94.80	-61.50	227.99	29.25	36.30	61.50	104.99
-29.50	95.05	-62.00	228.49	29.50	36.05	62.00	104.49
-29.75	95.30	-62.50	228.99	29.75	35.80	62.50	103.99
-30.00	95.55	-63.00	229.49	30.00	35.55	63.00	103.49
-30.25	95.80	-63.50	229.99	30.25	35.30	63.50	102.99
-30.50	96.05	-64.00	230.49	30.50	35.05	64.00	102.49
-30.75	96.30	-64.50	230.99	30.75	34.80	64.50	101.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



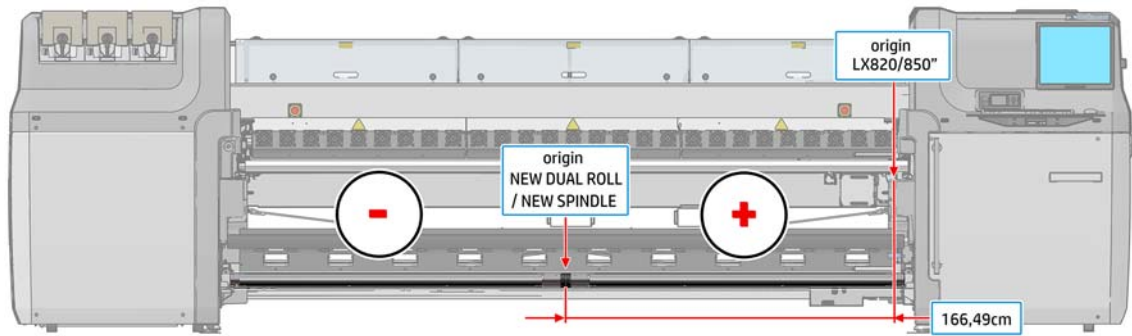
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-31.00	96.55	-65.00	231.49	31.00	34.55	65.00	101.49
-31.25	96.80	-65.50	231.99	31.25	34.30	65.50	100.99
-31.50	97.05	-66.00	232.49	31.50	34.05	66.00	100.49
-31.75	97.30	-66.50	232.99	31.75	33.80	66.50	99.99
-32.00	97.55	-67.00	233.49	32.00	33.55	67.00	99.49
-32.25	97.80	-67.50	233.99	32.25	33.30	67.50	98.99
-32.50	98.05	-68.00	234.49	32.50	33.05	68.00	98.49
-32.75	98.30	-68.50	234.99	32.75	32.80	68.50	97.99
-33.00	98.55	-69.00	235.49	33.00	32.55	69.00	97.49
-33.25	98.80	-69.50	235.99	33.25	32.30	69.50	96.99
-33.50	99.05	-70.00	236.49	33.50	32.05	70.00	96.49
-33.75	99.30	-70.50	236.99	33.75	31.80	70.50	95.99
-34.00	99.55	-71.00	237.49	34.00	31.55	71.00	95.49
-34.25	99.80	-71.50	237.99	34.25	31.30	71.50	94.99
-34.50	100.05	-72.00	238.49	34.50	31.05	72.00	94.49
-34.75	100.30	-72.50	238.99	34.75	30.80	72.50	93.99
-35.00	100.55	-73.00	239.49	35.00	30.55	73.00	93.49
-35.25	100.80	-73.50	239.99	35.25	30.30	73.50	92.99
-35.50	101.05	-74.00	240.49	35.50	30.05	74.00	92.49
-35.75	101.30	-74.50	240.99	35.75	29.80	74.50	91.99
-36.00	101.55	-75.00	241.49	36.00	29.55	75.00	91.49
-36.25	101.80	-75.50	241.99	36.25	29.30	75.50	90.99
-36.50	102.05	-76.00	242.49	36.50	29.05	76.00	90.49
-36.75	102.30	-76.50	242.99	36.75	28.80	76.50	89.99
-37.00	102.55	-77.00	243.49	37.00	28.55	77.00	89.49
-37.25	102.80	-77.50	243.99	37.25	28.30	77.50	88.99
-37.50	103.05	-78.00	244.49	37.50	28.05	78.00	88.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



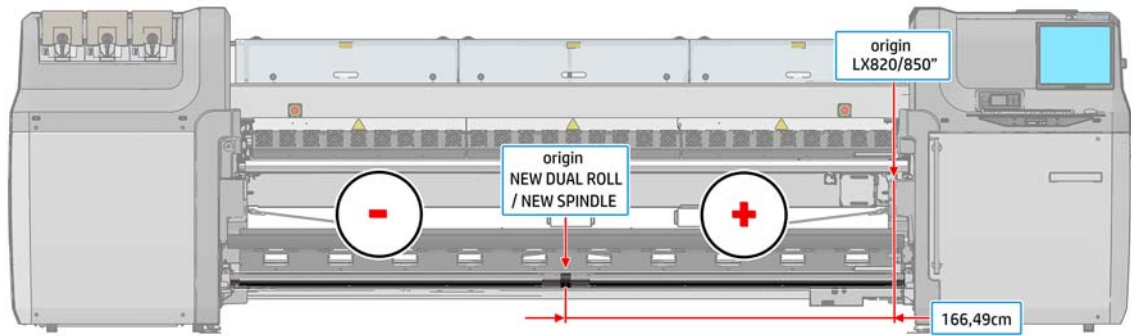
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-37.75	103.30	-78.50	244.99	37.75	27.80	78.50	87.99
-38.00	103.55	-79.00	245.49	38.00	27.55	79.00	87.49
-38.25	103.80	-79.50	245.99	38.25	27.30	79.50	86.99
-38.50	104.05	-80.00	246.49	38.50	27.05	80.00	86.49
-38.75	104.30	-80.50	246.99	38.75	26.80	80.50	85.99
-39.00	104.55	-81.00	247.49	39.00	26.55	81.00	85.49
-39.25	104.80	-81.50	247.99	39.25	26.30	81.50	84.99
-39.50	105.05	-82.00	248.49	39.50	26.05	82.00	84.49
-39.75	105.30	-82.50	248.99	39.75	25.80	82.50	83.99
-40.00	105.55	-83.00	249.49	40.00	25.55	83.00	83.49
-40.25	105.80	-83.50	249.99	40.25	25.30	83.50	82.99
-40.50	106.05	-84.00	250.49	40.50	25.05	84.00	82.49
-40.75	106.30	-84.50	250.99	40.75	24.80	84.50	81.99
-41.00	106.55	-85.00	251.49	41.00	24.55	85.00	81.49
-41.25	106.80	-85.50	251.99	41.25	24.30	85.50	80.99
-41.50	107.05	-86.00	252.49	41.50	24.05	86.00	80.49
-41.75	107.30	-86.50	252.99	41.75	23.80	86.50	79.99
-42.00	107.55	-87.00	253.49	42.00	23.55	87.00	79.49
-42.25	107.80	-87.50	253.99	42.25	23.30	87.50	78.99
-42.50	108.05	-88.00	254.49	42.50	23.05	88.00	78.49
-42.75	108.30	-88.50	254.99	42.75	22.80	88.50	77.99
-43.00	108.55	-89.00	255.49	43.00	22.55	89.00	77.49
-43.25	108.80	-89.50	255.99	43.25	22.30	89.50	76.99
-43.50	109.05	-90.00	256.49	43.50	22.05	90.00	76.49
-43.75	109.30	-90.50	256.99	43.75	21.80	90.50	75.99
-44.00	109.55	-91.00	257.49	44.00	21.55	91.00	75.49
-44.25	109.80	-91.50	257.99	44.25	21.30	91.50	74.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



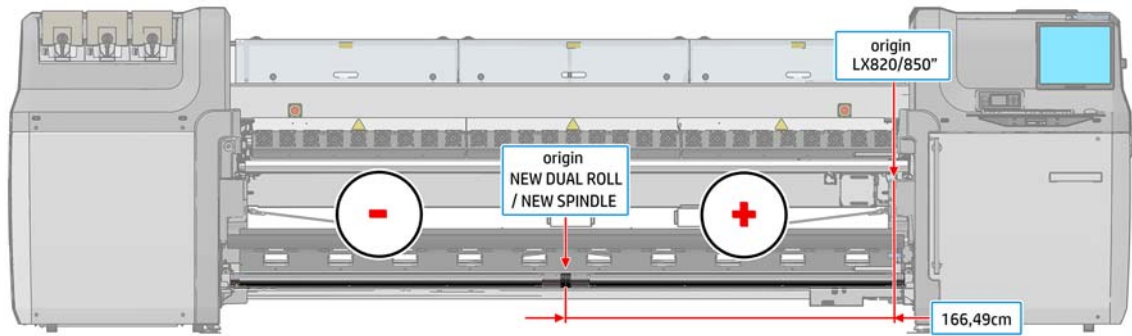
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-44.50	110.05	-92.00	258.49	44.50	21.05	92.00	74.49
-44.75	110.30	-92.50	258.99	44.75	20.80	92.50	73.99
-45.00	110.55	-93.00	259.49	45.00	20.55	93.00	73.49
-45.25	110.80	-93.50	259.99	45.25	20.30	93.50	72.99
-45.50	111.05	-94.00	260.49	45.50	20.05	94.00	72.49
-45.75	111.30	-94.50	260.99	45.75	19.80	94.50	71.99
-46.00	111.55	-95.00	261.49	46.00	19.55	95.00	71.49
-46.25	111.80	-95.50	261.99	46.25	19.30	95.50	70.99
-46.50	112.05	-96.00	262.49	46.50	19.05	96.00	70.49
-46.75	112.30	-96.50	262.99	46.75	18.80	96.50	69.99
-47.00	112.55	-97.00	263.49	47.00	18.55	97.00	69.49
-47.25	112.80	-97.50	263.99	47.25	18.30	97.50	68.99
-47.50	113.05	-98.00	264.49	47.50	18.05	98.00	68.49
-47.75	113.30	-98.50	264.99	47.75	17.80	98.50	67.99
-48.00	113.55	-99.00	265.49	48.00	17.55	99.00	67.49
-48.25	113.80	-99.50	265.99	48.25	17.30	99.50	66.99
-48.50	114.05	-100.00	266.49	48.50	17.05	100.00	66.49
-48.75	114.30	-100.50	266.99	48.75	16.80	100.50	65.99
-49.00	114.55	-101.00	267.49	49.00	16.55	101.00	65.49
-49.25	114.80	-101.50	267.99	49.25	16.30	101.50	64.99
-49.50	115.05	-102.00	268.49	49.50	16.05	102.00	64.49
-49.75	115.30	-102.50	268.99	49.75	15.80	102.50	63.99
-50.00	115.55	-103.00	269.49	50.00	15.55	103.00	63.49
-50.25	115.80	-103.50	269.99	50.25	15.30	103.50	62.99
-50.50	116.05	-104.00	270.49	50.50	15.05	104.00	62.49
-50.75	116.30	-104.50	270.99	50.75	14.80	104.50	61.99
-51.00	116.55	-105.00	271.49	51.00	14.55	105.00	61.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



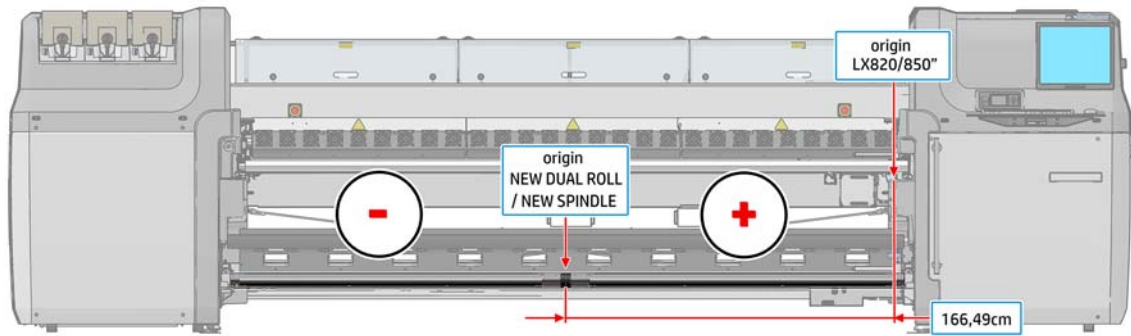
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-51.25	116.80	-105.50	271.99	51.25	14.30	105.50	60.99
-51.50	117.05	-106.00	272.49	51.50	14.05	106.00	60.49
-51.75	117.30	-106.50	272.99	51.75	13.80	106.50	59.99
-52.00	117.55	-107.00	273.49	52.00	13.55	107.00	59.49
-52.25	117.80	-107.50	273.99	52.25	13.30	107.50	58.99
-52.50	118.05	-108.00	274.49	52.50	13.05	108.00	58.49
-52.75	118.30	-108.50	274.99	52.75	12.80	108.50	57.99
-53.00	118.55	-109.00	275.49	53.00	12.55	109.00	57.49
-53.25	118.80	-109.50	275.99	53.25	12.30	109.50	56.99
-53.50	119.05	-110.00	276.49	53.50	12.05	110.00	56.49
-53.75	119.30	-110.50	276.99	53.75	11.80	110.50	55.99
-54.00	119.55	-111.00	277.49	54.00	11.55	111.00	55.49
-54.25	119.80	-111.50	277.99	54.25	11.30	111.50	54.99
-54.50	120.05	-112.00	278.49	54.50	11.05	112.00	54.49
-54.75	120.30	-112.50	278.99	54.75	10.80	112.50	53.99
-55.00	120.55	-113.00	279.49	55.00	10.55	113.00	53.49
-55.25	120.80	-113.50	279.99	55.25	10.30	113.50	52.99
-55.50	121.05	-114.00	280.49	55.50	10.05	114.00	52.49
-55.75	121.30	-114.50	280.99	55.75	9.80	114.50	51.99
-56.00	121.55	-115.00	281.49	56.00	9.55	115.00	51.49
-56.25	121.80	-115.50	281.99	56.25	9.30	115.50	50.99
-56.50	122.05	-116.00	282.49	56.50	9.05	116.00	50.49
-56.75	122.30	-116.50	282.99	56.75	8.80	116.50	49.99
-57.00	122.55	-117.00	283.49	57.00	8.55	117.00	49.49
-57.25	122.80	-117.50	283.99	57.25	8.30	117.50	48.99
-57.50	123.05	-118.00	284.49	57.50	8.05	118.00	48.49
-57.75	123.30	-118.50	284.99	57.75	7.80	118.50	47.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



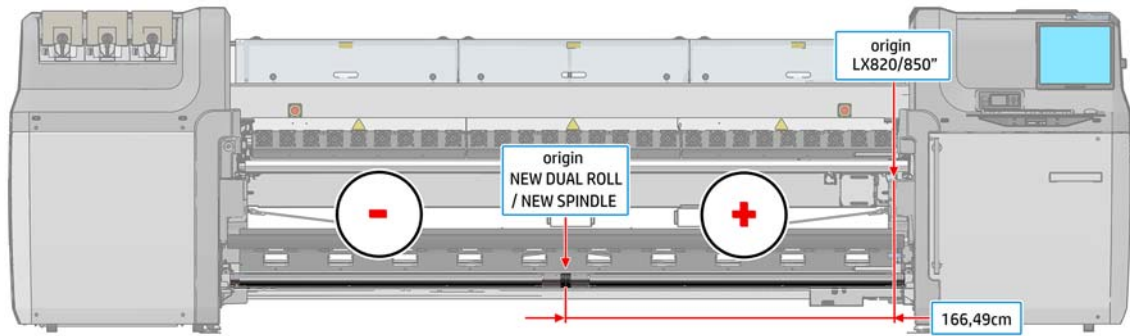
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-58.00	123.55	-119.00	285.49	58.00	7.55	119.00	47.49
-58.25	123.80	-119.50	285.99	58.25	7.30	119.50	46.99
-58.50	124.05	-120.00	286.49	58.50	7.05	120.00	46.49
-58.75	124.30	-120.50	286.99	58.75	6.80	120.50	45.99
-59.00	124.55	-121.00	287.49	59.00	6.55	121.00	45.49
-59.25	124.80	-121.50	287.99	59.25	6.30	121.50	44.99
-59.50	125.05	-122.00	288.49	59.50	6.05	122.00	44.49
-59.75	125.30	-122.50	288.99	59.75	5.80	122.50	43.99
-60.00	125.55	-123.00	289.49	60.00	5.55	123.00	43.49
-60.25	125.80	-123.50	289.99	60.25	5.30	123.50	42.99
-60.50	126.05	-124.00	290.49	60.50	5.05	124.00	42.49
-60.75	126.30	-124.50	290.99	60.75	4.80	124.50	41.99
-61.00	126.55	-125.00	291.49	61.00	4.55	125.00	41.49
-61.25	126.80	-125.50	291.99	61.25	4.30	125.50	40.99
-61.50	127.05	-126.00	292.49	61.50	4.05	126.00	40.49
-61.75	127.30	-126.50	292.99	61.75	3.80	126.50	39.99
-62.00	127.55	-127.00	293.49	62.00	3.55	127.00	39.49
-62.25	127.80	-127.50	293.99	62.25	3.30	127.50	38.99
-62.50	128.05	-128.00	294.49	62.50	3.05	128.00	38.49
-62.75	128.30	-128.50	294.99	62.75	2.80	128.50	37.99
-63.00	128.55	-129.00	295.49	63.00	2.55	129.00	37.49
-63.25	128.80	-129.50	295.99	63.25	2.30	129.50	36.99
-63.50	129.05	-130.00	296.49	63.50	2.05	130.00	36.49
-63.75	129.30	-130.50	296.99	63.75	1.80	130.50	35.99
-64.00	129.55	-131.00	297.49	64.00	1.55	131.00	35.49
-64.25	129.80	-131.50	297.99	64.25	1.30	131.50	34.99
-64.50	130.05	-132.00	298.49	64.50	1.05	132.00	34.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



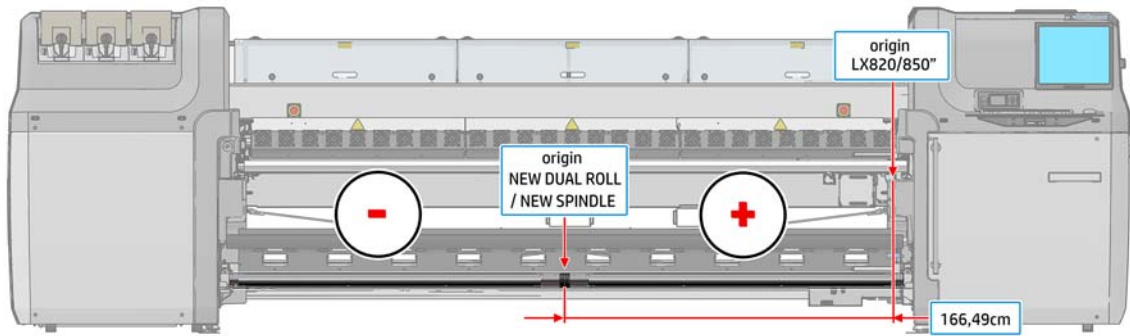
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
-64.75	130.30	-132.50	298.99	64.75	0.80	132.50	33.99
-65.00	130.55	-133.00	299.49	65.00	0.55	133.00	33.49
-65.25	130.80	-133.50	299.99	65.25	0.30	133.50	32.99
-65.50	131.05	-134.00	300.49	65.50	0.05	134.00	32.49
-65.75	131.30	-134.50	300.99	65.75	-0.20	134.50	31.99
-66.00	131.55	-135.00	301.49	66.00	-0.45	135.00	31.49
-66.25	131.80	-135.50	301.99	66.25	-0.70	135.50	30.99
-66.50	132.05	-136.00	302.49	66.50	-0.95	136.00	30.49
-66.75	132.30	-136.50	302.99	66.75	-1.20	136.50	29.99
-67.00	132.55	-137.00	303.49	67.00	-1.45	137.00	29.49
-67.25	132.80	-137.50	303.99	67.25	-1.70	137.50	28.99
-67.50	133.05	-138.00	304.49	67.50	-1.95	138.00	28.49
		-138.50	304.99			138.50	27.99
		-139.00	305.49			139.00	27.49
		-139.50	305.99			139.50	26.99
		-140.00	306.49			140.00	26.49
		-140.50	306.99			140.50	25.99
		-141.00	307.49			141.00	25.49
		-141.50	307.99			141.50	24.99
		-142.00	308.49			142.00	24.49
		-142.50	308.99			142.50	23.99
		-143.00	309.49			143.00	23.49
		-143.50	309.99			143.50	22.99
		-144.00	310.49			144.00	22.49
		-144.50	310.99			144.50	21.99
		-145.00	311.49			145.00	21.49
		-145.50	311.99			145.50	20.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



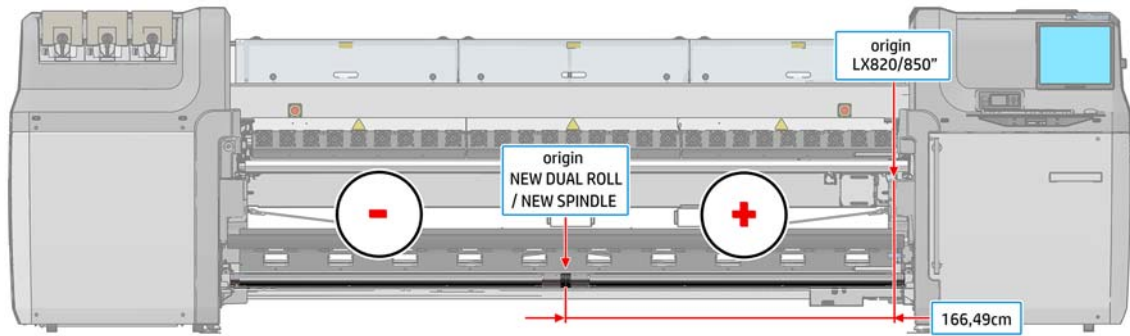
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
		-146.00	312.49			146.00	20.49
		-146.50	312.99			146.50	19.99
		-147.00	313.49			147.00	19.49
		-147.50	313.99			147.50	18.99
		-148.00	314.49			148.00	18.49
		-148.50	314.99			148.50	17.99
		-149.00	315.49			149.00	17.49
		-149.50	315.99			149.50	16.99
		-150.00	316.49			150.00	16.49
		-150.50	316.99			150.50	15.99
		-151.00	317.49			151.00	15.49
		-151.50	317.99			151.50	14.99
		-152.00	318.49			152.00	14.49
		-152.50	318.99			152.50	13.99
		-153.00	319.49			153.00	13.49
		-153.50	319.99			153.50	12.99
		-154.00	320.49			154.00	12.49
		-154.50	320.99			154.50	11.99
		-155.00	321.49			155.00	11.49
		-155.50	321.99			155.50	10.99
		-156.00	322.49			156.00	10.49
		-156.50	322.99			156.50	9.99
		-157.00	323.49			157.00	9.49
		-157.50	323.99			157.50	8.99
		-158.00	324.49			158.00	8.49
		-158.50	324.99			158.50	7.99
		-159.00	325.49			159.00	7.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



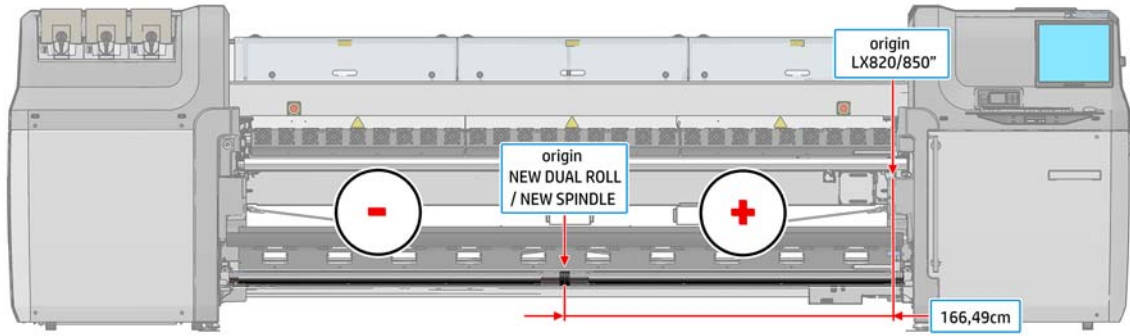
Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
		-159.50	325.99			159.50	6.99
		-160.00	326.49			160.00	6.49
		-160.50	326.99			160.50	5.99
		-161.00	327.49			161.00	5.49
		-161.50	327.99			161.50	4.99
		-162.00	328.49			162.00	4.49
		-162.50	328.99			162.50	3.99
		-163.00	329.49			163.00	3.49
		-163.50	329.99			163.50	2.99
		-164.00	330.49			164.00	2.49
		-164.50	330.99			164.50	1.99
		-165.00	331.49			165.00	1.49
		-165.50	331.99			165.50	0.99
		-166.00	332.49			166.00	0.49
		-166.50	332.99			166.50	-0.01
		-167.00	333.49			167.00	-0.51
		-167.50	333.99			167.50	-1.01
		-142.00	308.49			142.00	24.49
		-142.50	308.99			142.50	23.99
		-143.00	309.49			143.00	23.49
		-143.50	309.99			143.50	22.99
		-144.00	310.49			144.00	22.49
		-144.50	310.99			144.50	21.99
		-145.00	311.49			145.00	21.49
		-145.50	311.99			145.50	20.99
		-146.00	312.49			146.00	20.49
		-146.50	312.99			146.50	19.99

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
		-147.00	313.49			147.00	19.49
		-147.50	313.99			147.50	18.99
		-148.00	314.49			148.00	18.49
		-148.50	314.99			148.50	17.99
		-149.00	315.49			149.00	17.49
		-149.50	315.99			149.50	16.99
		-150.00	316.49			150.00	16.49
		-150.50	316.99			150.50	15.99
		-151.00	317.49			151.00	15.49
		-151.50	317.99			151.50	14.99
		-152.00	318.49			152.00	14.49
		-152.50	318.99			152.50	13.99
		-153.00	319.49			153.00	13.49
		-153.50	319.99			153.50	12.99
		-154.00	320.49			154.00	12.49
		-154.50	320.99			154.50	11.99
		-155.00	321.49			155.00	11.49
		-155.50	321.99			155.50	10.99
		-156.00	322.49			156.00	10.49
		-156.50	322.99			156.50	9.99
		-157.00	323.49			157.00	9.49
		-157.50	323.99			157.50	8.99
		-158.00	324.49			158.00	8.49
		-158.50	324.99			158.50	7.99
		-159.00	325.49			159.00	7.49
		-159.50	325.99			159.50	6.99
		-160.00	326.49			160.00	6.49

Table 5-1 Conversion Tables (for LX800, LX820 and LX850) (continued)



Inches		Centimeters		Inches		Centimeters	
Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value	Ruler Value	IPS Value
		-160.50	326.99			160.50	5.99
		-161.00	327.49			161.00	5.49
		-161.50	327.99			161.50	4.99
		-162.00	328.49			162.00	4.49
		-162.50	328.99			162.50	3.99
		-163.00	329.49			163.00	3.49
		-163.50	329.99			163.50	2.99
		-164.00	330.49			164.00	2.49
		-164.50	330.99			164.50	1.99
		-165.00	331.49			165.00	1.49
		-165.50	331.99			165.50	0.99
		-166.00	332.49			166.00	0.49
		-166.50	332.99			166.50	-0.01
		-167.00	333.49			167.00	-0.51
		-168.00	334.49			168.00	-1.51
		-168.50	334.99			168.50	-2.01
		-169.00	335.49			169.00	-2.51
		-169.50	335.99			169.50	-3.01
		-170.00	336.49			170.00	-3.51
		-170.50	336.99			170.50	-4.01
		-171.00	337.49			171.00	-4.51