Electronic direct drive lockstitch bar tacker

KE-430D

Electronic direct drive lockstitch button sewer

BE-438D

KE-430D

- High maximum sewing speed
- Sewing data is sewn faithfully and attractively
- Work clamp height can be adjusted easily from the operation panel
- Low power consumption
- Low noise and low vibration

Attractive seams at high speeds and the world's fastest cycle time.
Combining high quality sewing and high productivity.

Overwhelmingly Superior Productivity with the World's Fastest Cycle Time

Maximum Speed: 3,200 rpm (KE-430D), 2,700 rpm (BE-438D)

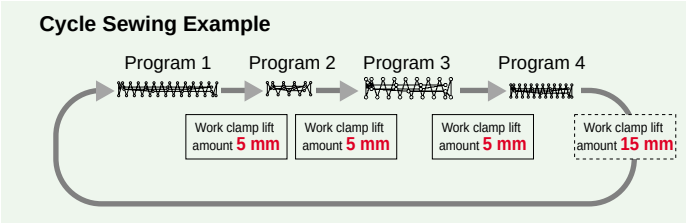
Since a direct drive system is used, startup and stopping is quick. Machine time is reduced approximately 27% compared with previous model (KE-430C), and productivity is increased. (Brother's comparison)

Positioning Carried Out Quickly and Accurately

Since the operation of the work clamp lifter is controlled by a pulse motor, the work clamp lift amount can be set in two steps. Positioning is easy, and the time for setting up the material to be sewn is reduced.
In addition, the pedal operates smoothly with light pressure, and excellent response is obtained when the pedal is repeatedly depressed. The work clamp operates quietly when it lowers, so that operation gives less stress.

Overwhelmingly Superior Productivity with the World's Fastest Cycle Time

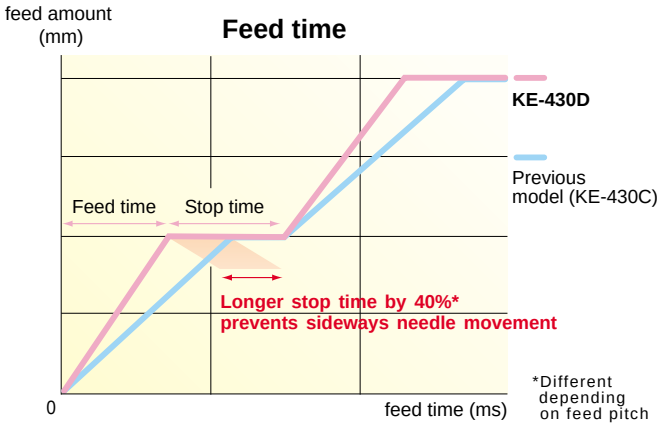
Work Clamp Lift Amount Is Automatically Changed According To The Program



The maximum work clamp lift amount and the intermediate work clamp lift amount (positioning) can be set without using tools by inputting numbers into the panel. In addition, if it is set to user program mode, the work clamp lift amount can be set for each program, so work is always done at the optimal height. You do not need to adjust the work clamp lift amount each time the program changes. Naturally, it can also be set for cycle sewing.

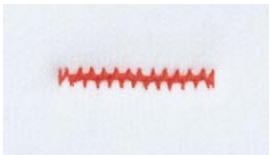
High Quality Sewing Faithfully Following the Sewing Data

Since a feed mechanism and needle bar and thread take-up mechanism with high rigidity have been adopted, there is no slack or bending of the mechanism even with high-speed sewing. In addition, since the feed mechanism uses a servo controlled pulse motor, the pattern does not lose its shape even with high speeds and heavy sewing materials. Since the data is resolved at 0.05 mm per pulse for the feed, slanted lines and curves are beautifully, accurately and smoothly completed.



Realization of Wide Ranging Sewing Capabilities and Low Tension Sewing

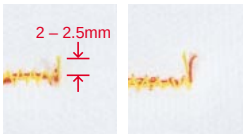
A servo-controlled feed mechanism with high rigidity and a needle bar and thread take-up mechanism with optimized timing and stroke have been adopted, so that it is possible to sew at low tension without variation in upper and lower thread tension. The range of thread tension balance has been expanded, and the range of thin materials and knit applications that can be sewn has expanded.



KE-430D

Follow-up Processing Unnecessary after Thread Trimming

To minimize the thread trailing length, a special movable knife and fixed knife are used, and the fixed knife has been placed close to the fabric. The thread trailing length at the back of the material after trimming is 2 – 2.5 mm, so that manual thread trimming is unnecessary. (-1 and –7 specifications)



KE-430D Previous model (KE-430C)

Prevents Thread cast-off, Bird's Nests, and Stains on the Thread at the Beginning of the Sewing operation

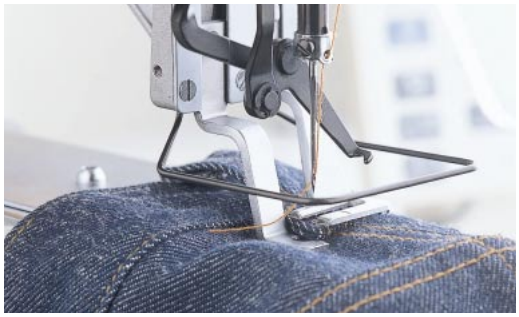
The upper thread nipper securely holds the upper thread for the first stitch underneath the fabric. This prevents upper thread cast-off (no skipped stitch) even through there is no reduction in speed at the beginning of sewing. It is also possible to shorten the needle thread remaining after trimming, preventing bird's nests and stains on the thread at the beginning of sewing operation.

Clean Sewing

It is a semi-dry type where only clean oil is supplied to only the hook. Since no oil is used around the needle bar and thread take-up, so you can use the sewing machine with no worry about oil staining. Because the direct drive system is used, sewing products will not be stained by belt shavings.

Powerful Needle Penetration Force

A more powerful 550 W servo motor has been adopted. The needle penetration force is powerful even at low speeds, and there is plenty of power available for sewing thick materials.

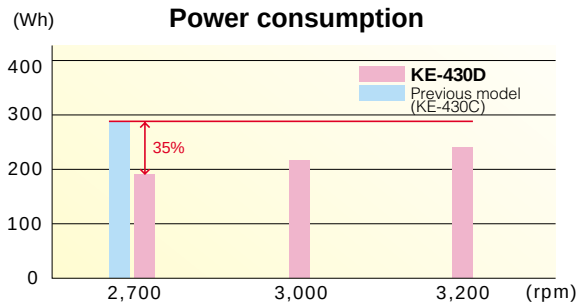


Adoption of Compact Flash Cards

Since CompactFlash (CF) cards can be used, sewing patterns created by a personal computer (programming software) can easily be added using panel operations. Since there is no need to write to P-ROM or open the control box and install P-ROM on a circuit board, the workload is lightened.

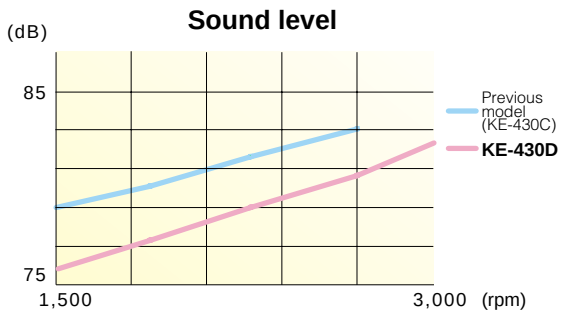
Because of Its Low Power Consumption, It is Economical

The direct drive mechanism greatly reduces power transmission losses, and a compact and energy-efficient motor has also been adopted. These innovations result in energy savings of approximately 35% from previous machines. It is the electronic bar tacker with the lowest power consumption on the market.



Low Noise and Low Vibration

A high rigidity frame is used. Each part, down to the most detailed, is balanced using the most up-to-date computer analysis, so that noise and vibration are reduced to their utmost limits. Operators do not tire and do not feel stressed.



Sewing Area 40 x 30 mm (KE-430D)

Since there is a large sewing area of 40 x 30 mm, these machines handle a wide range of applications from men's and women's clothing, denim to knits and foundation garments. Furthermore, if programming software is used, there is a high level of extensibility, and patterns can be sewn freely within the 40 x 30 mm.

Consideration for the Environment

Brother has established the "Brother Green Label" for conformance to the ISO 14021 international standard and the JIS Q14021 Japanese industrial standard. The KE-430D and BE-438D have been approved. They are environmentally friendly machines with their "realization of the industry's best energy savings through the direct drive system," "reduction of noise by more than 3 dB compared with previous models," "halving the oil consumption through lubrication-free technology," etc.

BROTHER GREEN PRODUCTS

Realization of the industry's best energy savings through the direct drive system
Reduction of noise by more than 3 dB compared with previous models
Halving the oil consumption through lubrication-free technology

Peripheral equipment

●PS-300B

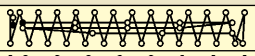
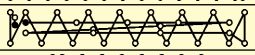
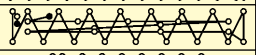
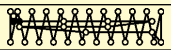
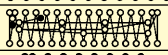
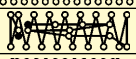
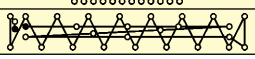
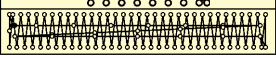
Sewing data programing software

With the KE-430D, sewing can be done using sewing patterns other than preset ones. PS-300B is software for creating sewing patterns on a personal computer.

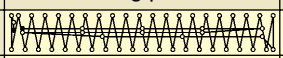
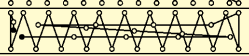
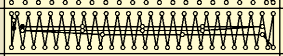
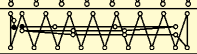
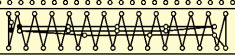
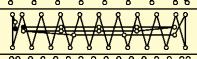
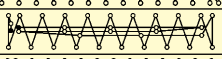
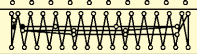
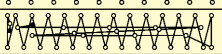
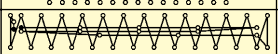
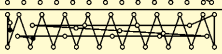
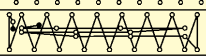
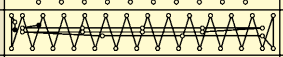
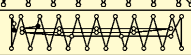
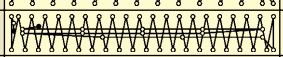
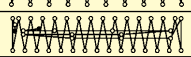
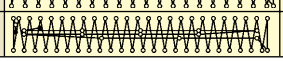
Program list (KE-430D)

The programs shown below have been preset into the sewing machine and can be selected according to specifications. (Any program is available as long as the sewing pattern is within the work clamp and feed plate in size.)
Use the work clamp and feed plate that match the respective sewing pattern selected.
The sewing size is the length when the enlargement/reduction ratio is 100%.

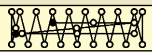
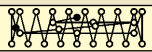
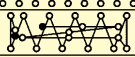
●For ordinary materials

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
1		42	16 × 2	65		43	16 × 2
4		31	16 × 2	66		32	16 × 2
5		29	10 × 2	67		30	10 × 2
8		21	7 × 2	68		22	7 × 2
13		35	10 × 2	69		36	10 × 2
15		42	10 × 2	70		43	10 × 2
20		28	7 × 2	71		29	7 × 2
21		35	7 × 2	72		36	7 × 2
64		30	16 × 2	89		90	24 × 3

●For denim

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
2		42	20 × 3	18		56	24 × 3
3		35	20 × 3	19		64	24 × 3
6		30	16 × 3	62		42	20 × 3
14		35	16 × 3	63		35	20 × 3
16		43	16 × 3	78		43	20 × 3
17		42	24 × 3	79		36	20 × 3
80		31	16 × 3	83		43	24 × 3
81		36	16 × 3	84		57	24 × 3
82		44	16 × 3	85		65	24 × 3

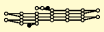
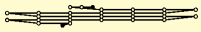
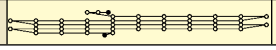
●For knitted materials and foundation garments

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
7		28	8 × 2	73		29	8 × 2
9		21	7 × 2	74		22	7 × 2
22		14	7 × 2	75		15	7 × 2
31*		28	8 × 2	76*		29	8 × 2
32*		22	8 × 2	77*		23	8 × 2
33*		15	8 × 2				

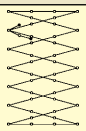
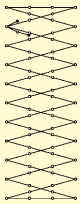
* The sewing start and sewing end are in the middle of the pattern.

Program list (KE-430D)

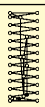
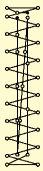
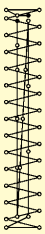
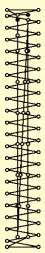
●Straight bar tacking

No.	Sewing pattern	No. of stitches	Length × Width (mm)
10		21	10 × 0.3
11		28	10 × 0.3
12		28	20 × 0.3
23		35	25 × 0.3
24		42	25 × 0.3
25		45	25 × 0.3

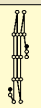
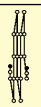
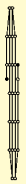
●Vertical zigzag stitching

No.	Sewing pattern	No. of stitches	Length × Width (mm)
44		46	9 × 15
45		70	9 × 25

●Vertical bar tacking

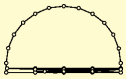
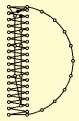
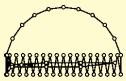
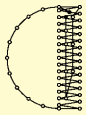
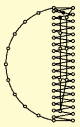
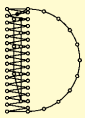
No.	Sewing pattern	No. of stitches	Length × Width (mm)
26		28	3 × 10
27		35	3 × 10
40		32	3 × 16
41		36	3 × 16
42		44	3 × 20
43		68	3 × 24

●Vertical straight bar tacking

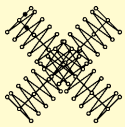
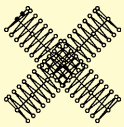
No.	Sewing pattern	No. of stitches	Length × Width (mm)
28		19	0.3 × 10
29		21	0.3 × 10
30		28	0.3 × 10
46		27	0.3 × 20
47		44	0.3 × 25

Program list (KE-430D)

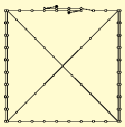
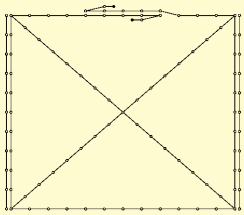
●Crescent bar tacking

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
34		35	12 × 7	37		57	7 × 12
35		58	12 × 7	38		53	7 × 10
36		57	7 × 12	39		53	7 × 10

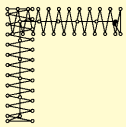
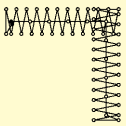
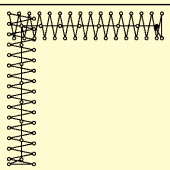
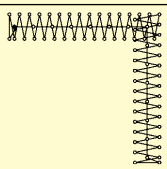
●Crossed stitching

No.	Sewing pattern	No. of stitches	Length × Width (mm)
48		70	10 × 10
49		93	9.6 × 9.6

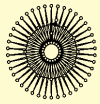
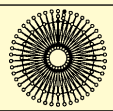
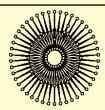
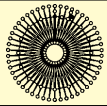
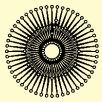
●Crossed tacking

No.	Sewing pattern	No. of stitches	Length × Width (mm)
50		84	16 × 16
51		105	30 × 26

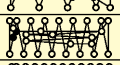
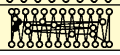
●L-pattern tacking

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
52		60	11.3 × 11.2	53		60	11.3 × 11.2
54		78	15.3 × 15.2	55		78	15.3 × 15.2

●Circular stitching

No.	Sewing pattern	No. of stitches	Length × Width (mm)	No.	Sewing pattern	No. of stitches	Length × Width (mm)
56		106	9 × 9	59		104	10 × 10
57		116	9 × 9	60		114	10 × 10
58		127	9 × 9	61		124	10 × 10

●For eyelet buttonhole

No.	Sewing pattern	No. of stitches	Length × Width (mm)
86		21	6 × 2
87		28	6 × 2
88		35	6 × 2

If you want to sew a pattern other than standard patterns, you can create your original pattern using the PS-3000. Consult with your local Brother sales Office for details.

Program list（BE-438D）

The programs shown below have been preset into the sewing machine. Any program is available as long as the needle drops down in the hole of the button.
When sewing programs that do not have crossover stitches, the thread is trimmed after sewing of one side is completed, and then the other side is sewn.

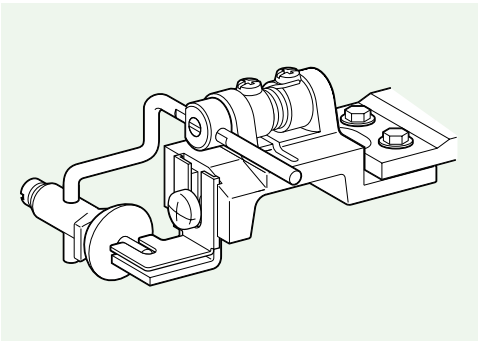
No.	No. of button holes	Sewing pattern	No. of threads	No. of crossover stitches	No. of stitches	Sewing size X×Y (mm)
1	2		6	—	12	3.4×0
2			8	—	14	
3			10	—	16	
4			12	—	18	
5 *1			16	—	22	
6 *1			20	—	26	
7 *2			6	—	12	0×3.4
23 *2			10	—	16	
8 *2			12	—	18	
9 *2	3		5-5-5	—	21	2.6×2.4
24 *2			7-7-7	—	27	
25 *2			5-5-5	—	21	
26 *2			7-7-7	—	27	
10	4		6-6	1	19	3.4×3.4
11			8-8	1	23	
12			8-8	3	25	
13			10-10	1	27	
27			12-12	1	31	
14 *3			6-6	0	24	
36 *4			6-6	0	24	
28 *3			8-8	0	28	
37 *4			8-8	0	28	
15 *3			10-10	0	32	
38 *4			10-10	0	32	
29 *3			12-12	0	36	
39 *4			12-12	0	36	
16			6-5	1	18	
17			8-7	1	22	
30			10-9	1	26	

No.	No. of button holes	Sewing pattern	No. of threads	No. of crossover stitches	No. of stitches	Sewing size X×Y (mm)
21 *2	4		6-6	1	19	2.4×3.4
34 *2			10-10	1	27	
22 *2*3			6-6	0	24	
43 *2*4			6-6	0	24	
35 *2*3			10-10	0	32	
44 *2*4			10-10	0	32	
46			6-6	1	19	3.4×3.4
47			8-8	1	23	
48			10-10	1	27	
49			12-12	1	31	
18			6-6	1	19	
19			8-8	1	23	
31			10-10	1	27	
45			12-12	1	31	
20 *3			6-6	0	24	
40 *4			6-6	0	24	
32 *3			8-8	0	28	
41 *4			8-8	0	28	
33 *3			10-10	0	32	
42 *4			10-10	0	32	

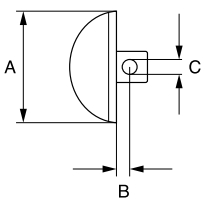
*1 Check that the button hole diameter is 2 mm or greater before using the programs.
*2 Do not use the button lifter spring.
*3 When sewing of one side is completed, the button clamp rises and the thread is wipped. To finish sewing, press the foot switch until sewing of the other side starts, or press the foot switch again after sewing of the other side is completed.
*4 When sewing of one side is completed, the thread will be wipped without the button clamp rising, and then the other side will be sewn.

Options

●Shank device



Types of shank buttons



A : φ18mm or less
B : 1.5mm or more
C : φ1.5mm or more

No.	No. of threads	No. of stitches	Sewing size X×Y (mm)
50	6	12	3.4×0
51	8	14	
52	10	16	
53	12	18	

Compatible control program versions are Ver. 6.0.00 and later. If using an earlier version than this, update the version. When sewing this program, use a sewing speed of 1600 rpm or less.

Specifications

KE-430D-0 □

1	Ordinary materials
2	Denim
7	Knitted materials
F	Foundation garments

BE-438D

Model	Lock stitch	Bar tacking	Button sewing	Standard hook	Light materials	Medium materials	Heavy materials	Thread trimmer	Thread wiper	Max. sewing speed
KE-430D	★	★	–	★	★	★	★	★	★	3,200 rpm
BE-438D	★	–	★	★	★	★	–	★	★	2,700 rpm

	KE-430D	BE-438D
Stitch formation	Single needle lock stitch	
Max. sewing speed	3,200 rpm	2,700 rpm
Sewing area (X-Y)	Max. 40 x 30 mm	Max. 6.4 x 6.4 mm
Feed mechanism	Y-θ intermittent feed mechanism (pulse-motor driven mechanism)	
Stitch length	0.05 – 12.7 mm	
No. of stitches	Variable (Refer to "Program List" for details on the number of stitches for sewing patterns that are already preset.)	
Max. No. of stitches	210,000 stitches (including 200,000 stitches which can be added)	
Work clamp lifter	Pulse motor drive system	
Work clamp height Button clamp height	17 mm Max.	13 mm Max.
Rotary hook	Shuttle hook (double shuttle hook, optional)	Shuttle hook
Thread wiper	Standard equipment	
Thread trimmer	Standard equipment	
Thread nipper	Standard equipment	
Data storage method	Flash memory (Any sewing pattern can be added using CF card)	
No. of user programs	50	
No. of cycle programs	9 cycle (15 program for each cycle)	
No. of stored data	89 sewing patterns are set already	49 sewing patterns are set already
	(Up to 200 patterns can be added. Total number of stitches of stored data which can be added is within 200,000.)	
Motor	AC servo motor 550W	
Weights	Machine head: 56kg, Operation panel: 0.6kg, Control box: 14.2-16.2kg (depending on destination)	
Power source	Single-phase 100V, 220V Three-phase 200V, 220V, 380V, 400V 400VA	
Dimensions of buttons that can be sewn	—	Outer diameter of button 8 – 30 mm. (Use the optional button clamp B for diameters of 20 mm or greater.)

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Mizuho and Minato plants acquired ISO 9001 and 14001 certifications.

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