

ZDBX Series Wire Stripping and Cutting Machine



INSTRUCTION MANUAL

Before using this machine, please do read this book carefully, and make sure that you have paid enough attention to the safety. With proper using of this machine, not only can you avoid accidents, but also prolong the life of the equipment. So please do give your attention to the operation. And to make this machine work to its best, you should live up to the things below.

1. Please do read this book carefully and make sure that you have understood it well, and then you may carry on operation, maintenance as well as attendance.
2. If you'd like to transfer this machine to someone else, please transfer this book together with the machine to the transferee.
3. Please keep this book in good condition in a place where you can get at any moment, so as to make this book bear long use.
4. We are in line on the serving tenet of "customers are paramount", so we carry out for the customers" one year maintenance and lifetime upkeep" of the ZDBX series wire stripping and cutting machines. We will provide the customers with perfect service.
5. This machine has one-year guarantee (starting from the day of the opening of the invoice). During the guaranty, if there are any problems caused by the quality, for instance, the machine cannot work soundly, or something wrong happens while it is being operated,

please contact our Maintenance Department or Sales Department for instant management.

6. Beware that the circumstances below are beyond maintenance.
 - a) Damages caused by the improper use of the user's.
 - b) Damages caused by tearing down the machine of your own accord.
 - c) Damages caused by adopting voltage that is out of the compliance with the requirement.
 - d) Damages caused by the force majeure.
7. After the guaranty, we will charge you properly for changing the wearing parts and fittings used for repair.
8. To have the machine maintained, you can either consign it to our factory or have our technicians gone up to you. And their travel expense will be born on your account if the maintaining happens beyond the guaranty.
9. Users can contact us through telephone call or E-mail so that we may provide you with satisfactory service.

NOTICE

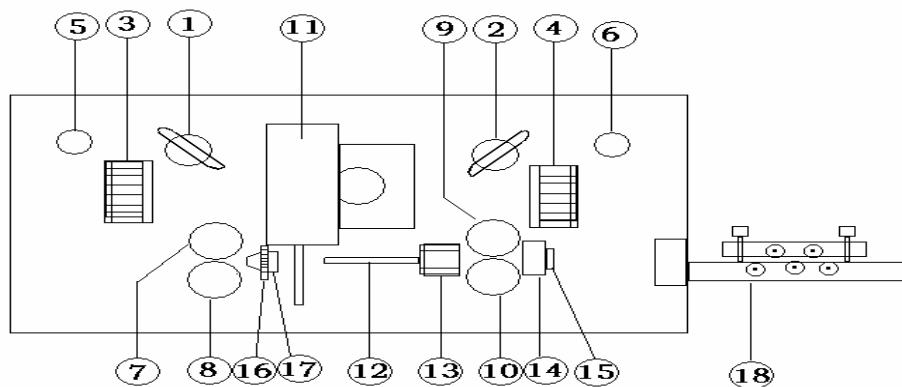
1. Computerized wire cutting and stripping machines work under the dictation of the computers'. Stable voltage is essential to blade precision and efficiency. If the voltage is non-stable, the user must fit out stable power supply. (OPS: AC220V±10%, 50-60HZ)
2. To assure safety operation and the disposal of the disturbance of static when you put these machines into use, you must equip the jacks of power supply with ground cable and specific power lead.
3. Make sure that the machine is working under the environment that is clean and excellent ventilated and is also free from soot, corrosive chemicals and strong electromagnetic field. Or the over temperature rise will not only lead to the fall of the ability of the machines', but also damage the electrical components. (The places where the temperature is high should better have fans set around the machine to get

rid of the heat.)

4. Never try to use the same power supply together with relay that are frequently used or the electromagnet or the things like that.
5. Apply lubricating maintenance to the mechanical drive parts regularly.
6. If the machine cannot work soundly, please stop to check it out, and if possible, please do some adjustments yourself. And if you cannot get rid of problems, please contact our Maintenance Department or Sales Department for help.

INTRODUCTION FOR THE EXOSTRUCTURE

Introduction of the Front Panel of the Cassette Mechanism

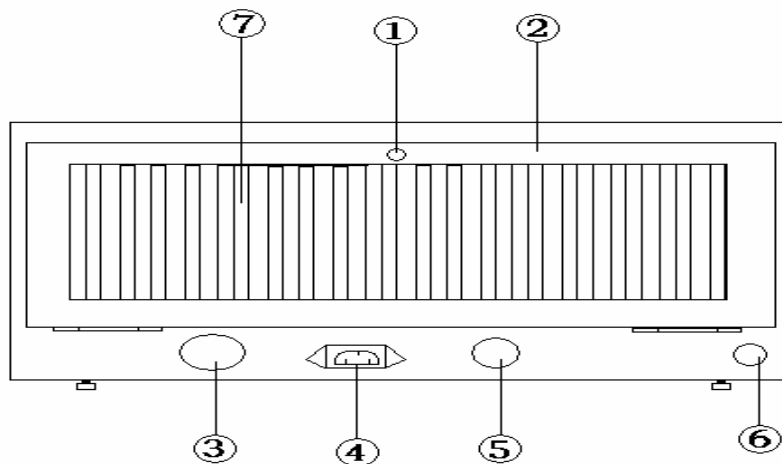


PICTURE: 1-1

- (1) Knob for left roller UP/DOWN
- (2) Knob for right roller UP/DOWN
- (3) Left roller gap adjusting dial
- (4) Right roller gap adjusting dial
- (5) Adjusting knob for the pressure between the rollers on the left side
- (6) Adjusting knob for the pressure between the rollers on the right side
- (7) Left Roller
- (8) Left Roller
- (9) Right Roller
- (10) Right Roller

- (11) Cutter block
- (12) Conduct pipe
- (13) Guide holder
- (14) Front wire guide holder
- (15) Front wire guide
- (16) Back wire guide holder
- (17) Back wire guide
- (18) Straightener

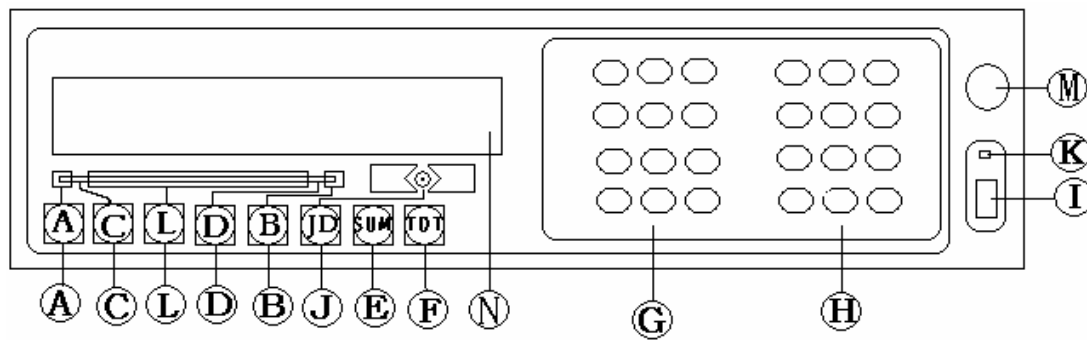
2. View of the back side of the machine



PICTURE: 1-2

- (1) Fixing hole of the rear cover
- (2) Rear cover
- (3) Outer plug
- (4) AC220V, 50-60 HZ three wires power socket
- (5) Fuse holder
- (6) Inputting hole for compressed air
- (7) Radiator

1. Introduction of the operation panel



PICTURE: 1-3

- | | |
|--|----------------------------|
| A. Front cutting length | B. Back cutting length |
| C. Front stripping length | D. Back stripping length |
| E. Bundling amount | F. Total processing amount |
| G. Function keys | H. Number keys |
| I. Power ON/OFF switch | J. Amount of feed |
| K. Power light indicator | L. Total length of wire |
| M. Emergency stop switch | |
| N. Video screen, Liquid Crystal Display with purple as backlight | |

Function keys:

- <SET> known as home key. Press this key, the frame will flip over.
- <CTJ> under the state of operation, press this key, the blade will run vertically once.
- <HEP> Display the messages of the stored wire specifications in computer.
- <+> <-> and <REP> they are together used in the increase or decrease of the numerical value as well as page turning.
- <STR> starting key, run in calculating amount from "0"
- <CON> start-up key, run in accumulative total calculating amount
- <STP> stopping key, press this button, the machine will stop working after it has finished the last piece of wire.
- <TRY> under the state of operation, the machine will run once if you press this button.
- SPEED It is used to regulate the processing speed. The setting of the numerical

value on the wire<F> and blade <C> is available from 0 to 9.

<REP> It is used in the modification of radix point and error magnitude, and can be used together with <+> and <->

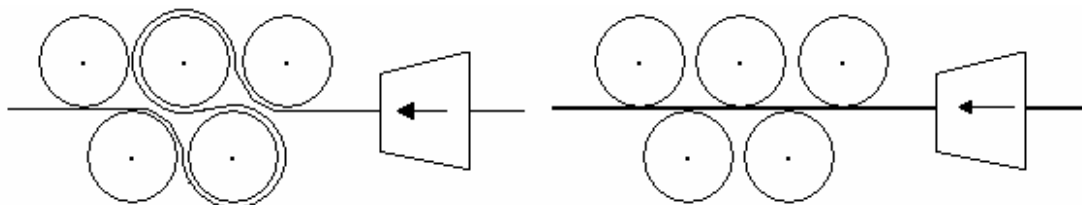
<RST> it can be used to unlock the motor. Press this key, not only the bundling amount will go back to zero; the incorrect data will also be dealt with.

“•” While adjusting the upper pendulum of the electromagnet, you can adjust the central site of the guide pipe and blade through pressing this button.

<CFM> store the data, only through pressing it can the machine carry out the instructions.

4. Straightener

This part is used to check straight while processing wires. It is comprised with two groups of rollers. When checking straight, the left group make wire go horizontally. To the right group, things are different, since if it is used to straighten fine line, the direction of wire should be like that showed in Fig-4, while if it is used to straighten heavy line, the direction of wire should be like that showed in Fig-5.



PICTURE: 1-4

PICTURE: 1-5

Display Modes as well as the Setting and Processing of Programs

1. The picture appearing after start-up (as shown in picture 2-1)

0	3			0	4			0	0	0	1	0	0		0	4		0	3		1	8		1	0	0		8	8	8	8	8	8		
0	0	+		0	0	+		0	0	+		0	0	+		0	0	+	0	0	+	0	0	+	F	6		C	6		N	C	0	0	1

(PICTURE: 2-1)

First, press <SET> once, the figures twinkle is in coding mode. It can store up to 250 pieces of processing data, ranging from 001# to 250#. (Notice: ZDBX-8 can only store up to 199 pieces of information.)

Press <+> and <-> or key three numbers directly to have the processing data stored, in order that you needn't reset it if you are in need of it.

If the message has been stored, the picture will be like Fig2-1, and if there is any“?”, it means that coding is still available to have new processing data stored. (Notice: The messages that have been stored can be revised either.)

2. Ways of enactment are as follows

1) Press “A”, the number corresponding to it on the display twinkles. Press number keys to key numbers needed. Beware that “A” stands for “cutting length”. (Notice: The measurement of this machine is by MM.)

2) Press “C” to input the corresponding stripping length, and “L” total length of wire.

3) Press “B” to input the number of back cutting length, and “D” back stripping length. (Notice: What “C” and “D” set is the length of the cutting head pulled away.

For example, 03 for A, 04 for C, 000100 for L, 03 for B, 04 for D.

4) Press <JD>, input wire gauge, which refers to the numerical value according to AWG. (<JD> refers to the depth of cutting on the jacket of wire. The bigger the number is, the larger the depth is. While on contrast, the smaller the depth will be.

And if you'd like to learn more information, please refer to the comparison table below.

JD	3	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
mm²									0.82	0.52	0.32	0.21	0.13	0.08	0.05	
AWG	3	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32

TABLE: 2-1

Press <SUM>, input the amount of bundling. When started, the number will start from “0”.

Press <CON>, it will begin with the amount that has been finished. Press < RST>, it will go back to “0”.

Press TOT key; input the amount of mass production, which will descend by steps. At last, press <CFM> to have the computer accept the instructions, simultaneously, the display will flicker once to show the acceptance of the order of the computer. If there is something wrong with the input order, the word “STP” will appear when you press the [STR] button.

Additional for ZDBX-8



ZDBX-8 is based on the development of ZDBX-2. It has been equipped with the auto raising function of the rear rollers, which can cut down on the pressure that the front rollers suffer when “A≥49” to assure the precision of the stripping head.

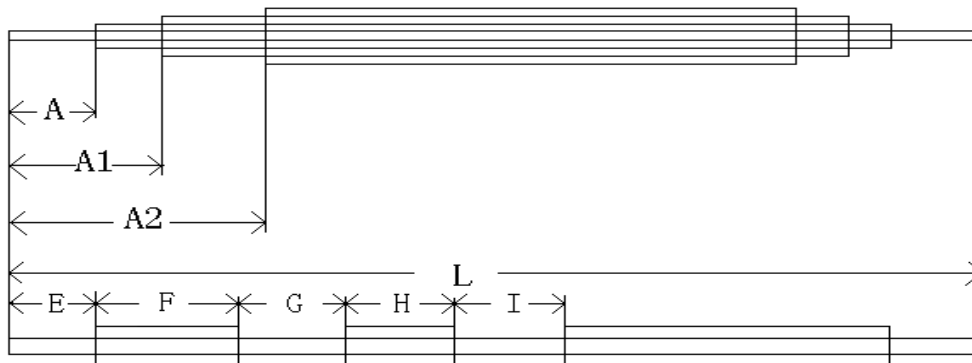
The setting and initialization of the raising function can be only carried out after pressing [CTJ] button. As only in this case can all the functions get prepared for stripping.

First and foremost, set the numerical values for M1, M2 and the raising function “000-180”.

1. set the programs according to the original instructions
2. Press [CFM], then press [SET] to enter M1, set the necessary data for the second advance of tool, at this time, you shall just set the numerical values for A1. C1. D1. B1. JD1, and the way of setting is just the same as that stated before.
3. Press [SET] once again to enter M2, and the cursor will flicker on “A”, at this moment, you can only set numerical values for A2. C2. D2. B2. JD2, in the same way as stated before, but you shall not skip to the last three numbers
4. The last three numbers are used to set the distance between the rear rollers when they lower down. When you set the last three numbers as “180”, the gap between the rollers is about 0.1 to 0.3mm. The smaller the numerical value is, the larger the gap is. The changes are unequal.
5. When you set the last three numbers of M2 as “000”, the raising mechanism will lower

down after the calibration of the zero point and even unlock the motor automatically after you press [CTJ] button. Meanwhile, the stripping head of M1 and M2 will fail to work automatically. And at this time, the machine will only do stripping once, which makes ZDBX-8 a plain ZDBX-2.

6. For example:



During mid-stripping:

$$A=E+G+I, C=E+G+I, A1=E+F+G+I, C1=G+I, A2=E+F+G+H+I, C2=I$$

A is available from 0 to 99, B is available from 0 to 35, A1 is available from 0 to 255,

B1 is available from 0 to 70, A2 is available from 0 to 255, B2 is available from 0 to 99,

C is available from 0 to 99, D is available from 0 to 35, C1 is available from 0 to 255,

D1 is available from 0 to 70, C2 is available from 0 to 255, D2 is available from 0 to 99,

The effective range of numerical values of "L" is $[L-(A2+B2)>0]$

When $A=10, A1=20, L=200, B=10, B1=15, B2=20, SPEED F=9, C=9$, this machine can strip 26 pieces of wires per minute normally, the adjustments of setting and compensation in M1 and M2 are the same as that are stated in Chapter 2.

7. When $L-A2 \leq 56$, the raising function will cease to be in effect, after pressing [CTJ]

button, the raising mechanism will lower down to the zero point, and then the motor will unlock itself, at this moment, the raising function will be no more effective, but it will still do stripping thice.

THE REPLACEMENT OF THE PARTS

1. the replacement of guide pipe (as Fig3-1)

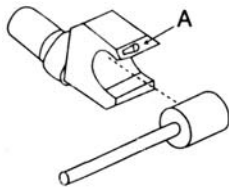


Fig3-1

Loosen A, take out the guide pipe horizontally, put in guide pipe with another specification, and turn it to the eccentric direction, and make the guide pipe aim at the centre of the blades, and

then fasten A.

2. replacement of wire guide (as Fig3-2)

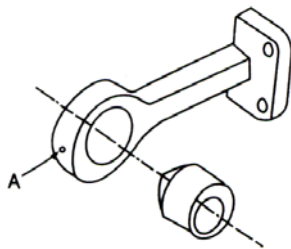


Fig3-2

Loosen A, take out the wire guide, put in wire guide with another specification, and turn it to the eccentric direction, and make the guide pipe aim at the centre of the blades, and then fasten A.

3. replacement of blades (as Fig3-3)

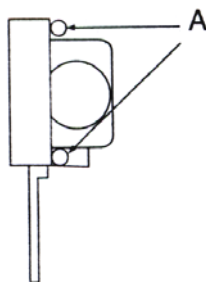


Fig3-3

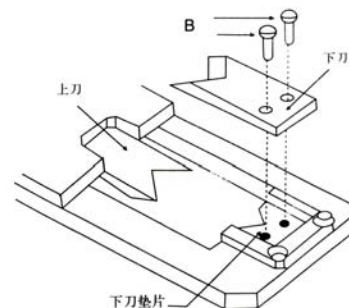
- 1) Remove Screw A, take out the blade carrier horizontally in accordance with the picture. Please note that you have learnt by heart the probable position of the two blades before you take off the

blade carrier.

- 2) According to Fig3-4, take off the blades.

Fig3-4

- 3) Refer to Fig 3-5, take off the blades, and then fix the blades in right sequence against the steps that you take off the blades.



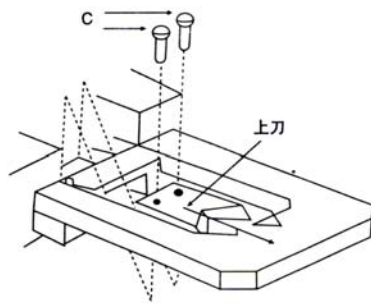


Fig 3-5

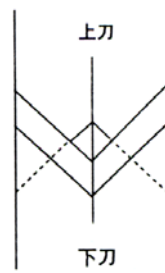


Fig 3-6

Refer to Fig 3-6, aim the upper blade at the down blade, and then fasten the screw.

4. The fixation of the blade carrier

Push the orbit of the blade carrier, and aim it at the rough position of the blades before being taken off, make the "+" convex (3-7D) of blade carrier conform with the "+" concave of the core machine, and put it in, than fasten the screw A.

Please note that: after the changing of the blade, there may be hurting to the core or even not enabling to strip of the outer jacket, never mind, just make use of compensation, press [REP] then [JD] button, press [+] or [-] to change the numbers to adjust the depth of blade feeding, repeat it again and again, and to have it written into the computer, which means you shall press [CFM] in the end.

5. If you can't make perfect cutting through the way stated above, you shall readjust the zero point of the machine, and the ways are as follows:

- ① cut down the power supply, open the operation panel (there are 6 pieces of M3 round head screws)
- ② revolve the driving-pulley, make the gap between the two blades around 1.00. (The central distance between the two "V" blades, refer to Fig 3-6) and keep the blades fixed.
- ③ adjust the fan-shaped anti dazzling screen, and enter the fillister of the sensor, switch on the power supply, set the light (LED) on the circuit board of the sensor in a state of criticality, and fasten the screws, Please note that you have set the fan-shaped screen in the middle of the fillister to avoid scratch when adjusting

the anti dazzling screen.

- ④ revolve the driving-pulley, to make the blades open to their most, and the indicator light is on at this moment, and the purpose of which is to prevent the blade carrier from being stuck when testing wires.
- ⑤ Switch on the power supply, test wire again, if every thing turns out to be perfect, fasten the screws on the anti dazzling screen again, and cover the operation panel and fasten the screws.
- ⑥ The anti dazzling screen of ZDBX-1 is oblong, but the way of adjustment is just the same as that of other models of machines.
- ⑦ Do not adjust the zero point too frequently, but make use of compensation, so as not to destroy the machine.
- ⑧. Lubrication of the blade carrier:

Pour enough quantity of lubricant into the holes of “E” as shown in Fig 3-8, before operating everyday. (For ZDBX-5 and ZDBX-10, loosen the screws on “E” first.)

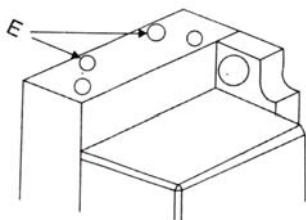


Fig 3-8



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[Wire Stripper Machine](#), [Wire Cutting Machine](#) and [Wire Crimping Machines](#).

COMMON BREAKDOWN AND SOLUTIONS

No	Phenomenon	Breakdown Analysis	Solution
1	Suddenly stop in normal work	A. The binding No. in B. sum have used up C. TOT in M3 decreased to "o" D. Voltage fluctuation exceed normal use scope protection device starts, machine stops automatically.	A. Press [CTJ] key ,start again B. Under M3 setting state, input TOT data, return to in run state, start machine again C. Add individual regulated power supply
2	The front stripping head is not neat	A. The gap of right feeding wire wheel is too big B. The press of right feeding wire wheel is not enough. C. Check against straight structure press too right D. The guide pipe doesn't towards the center of the edge of blade	A. Adjust the right wheel gap to suitable position B. Adjust the pressure knob to suitable position C. Adjust the guide pipe towards the center of edge of blade. D. Loosen the adjusting screws on the straightener a little
3	The rear stripping head is not neat.	A. The gap of left feeding wire wheel is too big. B. The press of left wheel is not enough.	A. Adjust the left wheel gap to proper position. B. Adjust the press adjustable knob to proper position.
4	The total length is not conform to set parameters A. Longer than setting length B. Shorter than setting length C. The length isn't identical.	A. B System tolerance exists in mechanical transmission. C. The gap between two wheels of the right feeding wire and press adjustment isn't proper, the check against structure feeding wire is not smoothly	A. Reduce "L" compensation value in M2, based 7 pulse about 1mm. B. The item isn't contrary with item "A" To process above 1.5m wire , you can add numerical value "L" of M1 model to actually required length C. Adjust the right feeding wire press to proper gap, keep check against structure feeding wire smoothly.
5	The front edge	The guide pipe position isn't	Adjust the guide pipe towards the edge

	of cutting is incline	correct.	of blade.
6	Press [STR] key one time, machine stops working.	A. TOT value in M3 have become "o" B. USUM is set to "1"	A. Reset "TOT" B. Reset "SUM"
7	The front stripping head is loose.	The left feeding wire gap is too small.	Adjust the left gap adjustable structure to proper position.
8	The stripping head of front or rear is cut in the same binding wire.	Without adding compressed air, causing to stack over wire skin at the edge of blade.	A. Adding compressed air B. Cleaning the edge of blade with brush.
9	There is deeply pattern in insulation skin	The press of left and right feeding wire wheel is too big.	Reduce the press of the right and left wheel to proper position.
10	When stripping short wire or mid-stripping, total length L is ok, but measurement A, B,C isn't conform to setting demand	A. Wire quality isn't standard between insulation level and wire core is wrapped too loose B. The insulation level is too soft, being squeezed to be out of shape in processing. After removing outside force , It can't recover original shape.	A. Change qualified wires B. There is defect on processing methods. You should reduce requirement on length precision
11	LCD panel displays some black squares even spreads the whole panel	Being touch the chip or LCD rear to produce electrostatic induction, influencing the change of electromagnetic field.	After removing touch body and turning off power supply or switch function key one time. LCD can in beginning state
12	Metal wire is pulled out in stripping wire ends	A. Feeding blade value of tuber cutter is too big B. Thin and thick of insulation lever isn't identical or core wire and insulation lever isn't in same axis	A. Reduce the numerical value under "SM" B. Change qualified wire
13	There isn't stripping and	Wrong settings	Recheck inputting numerical value "A" "B" "C" "D"

	tube cutter in front of wire, rear stripping normal. On the contrary , there is stripping in front and isn't stripping in rear		
14	Front twisting, while the jacket is still on	Something wrong with "C"	Something wrong with "C"
15	Rear twisting, while the jacket is still on	Something wrong with "D"	Something wrong with "D"
16	Twisting of front head is not perfect	The setting of numbers isn't that exact right	Reset S1. N1. X
17	Twisting of rear head is not perfect	The setting of numbers isn't that exact right	Reset S1. N1. X
18	The twisting machine doesn't work	A. The power cord and data line haven't been connected with the mainframe B. N1 and N2 is set "0"	A. connect the data line as well as the power cord with the mainframe B. N1>0, N2>0

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