

# FORMAX<sup>®</sup>

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FD 314  
Tabletop Paper Folder

OPERATOR-PARTS MANUAL  
FIRST EDITION

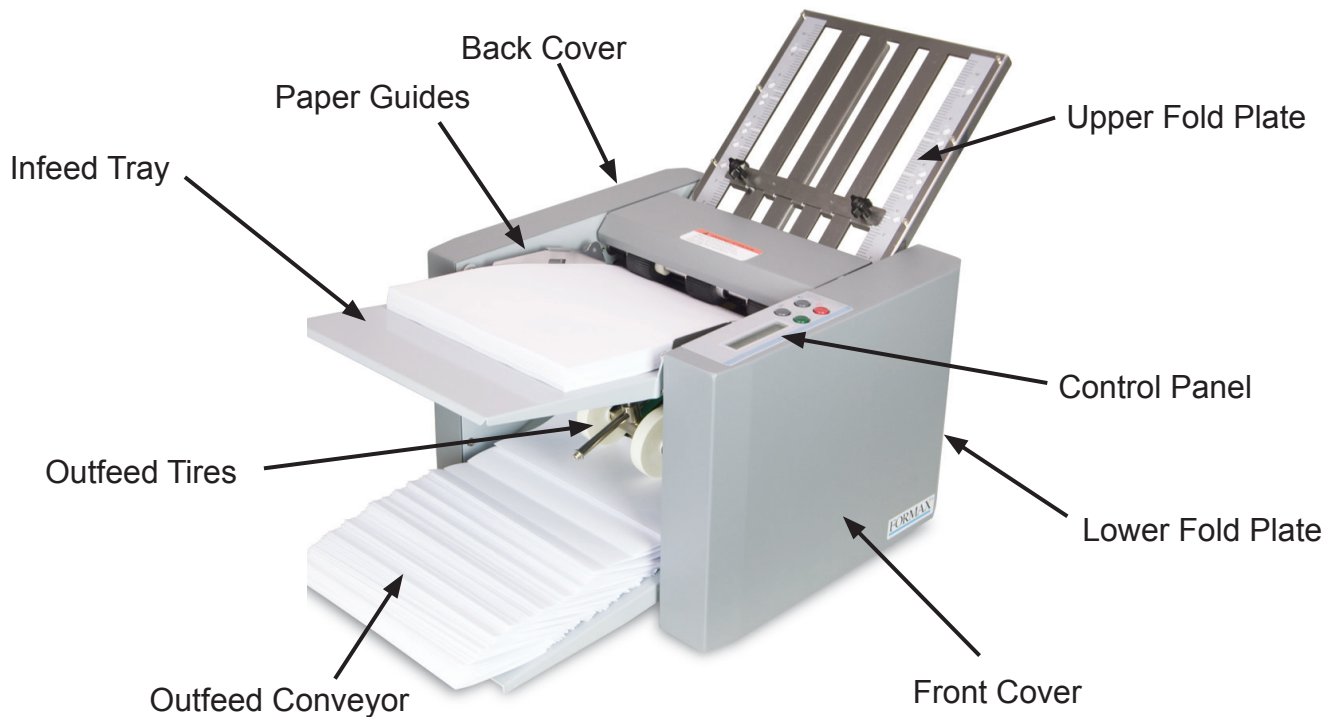


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## DESCRIPTION



## FUNCTION

The Formax FD 314 Low-Volume Document Folder is designed to fold various paper sizes. The fold plates are manually adjusted for C, V, Z and double parallel folds.

## SPECIFICATIONS

Hopper Capacity	Up to 250 sheets 20#
Speed:	Up to 7,700 sheets per hour
Paper Size:	Up to 8.5" x 14"
Fold Types:	C, Z, V, Double Parallel
Dimensions:	24" L x 14" W x 16.5" H
Machine weight	25 lb.
Power supply	120V, 50/60 Hz .6A

## SAFETY GUIDELINES

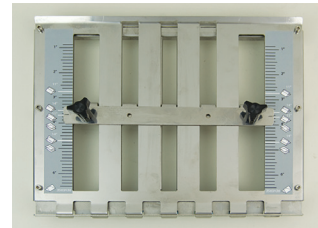
- The FD 314 is designed only to fold paper.
- Use the FD 314 in indoor locations only.
- Discontinue use if power cord is frayed or damaged. Contact Formax for assistance.
- Discontinue use if the machine makes unusual noise. Contact Formax for assistance.
- Use only the voltage specified, 120V. Do not attempt to alter this.
- Before using the machine, read all instructions carefully.
- To reduce the possibility of injury, children should not be allowed to operate the machine.
- Keep fingers, hands, loose sleeves, jewelry, hair away from the machine.
- If paper is jammed, switch off power and unplug from outlet. Remove fold plates from the machine and remove jammed paper.
- When replacing the fuse, use the same type specified. Disconnect machine from power supply then replace fuse. (Remove the front cover to access the fuse).

## UNPACKING & SETUP

1. Inspect package for damage.
2. Inspect packing to ensure all components are included: FD 314, upper & lower fold plates, power cord.



Upper Fold Plate

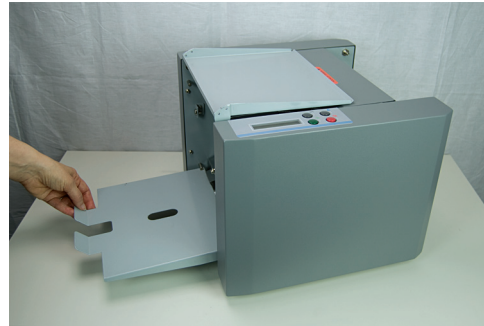


Lower Fold Plate



Power Cord

3. Place the FD 314 on a sturdy, level surface. Lower the output conveyor into its fully open position.



4. Open the paper infeed tray

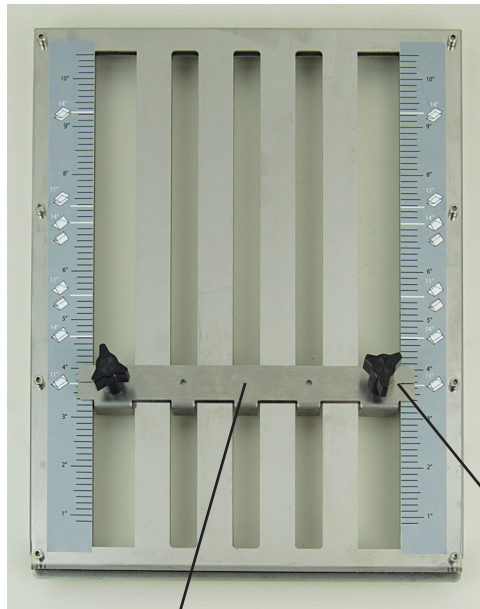


5. Attach power cable to receptacle, and plug into appropriate wall outlet.



# INSTALLING FOLD PLATES

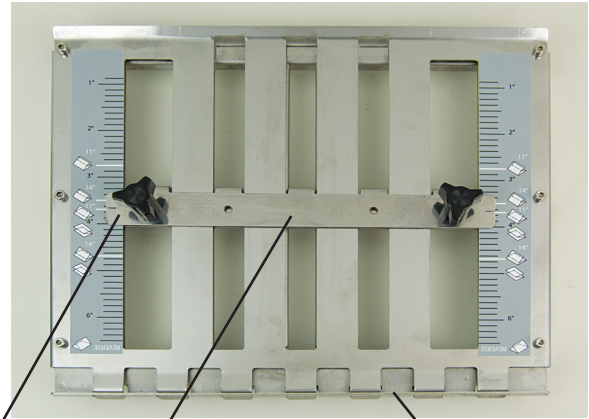
Upper Fold Plate



Fold stop

Fold stop knobs

Lower Fold Plate

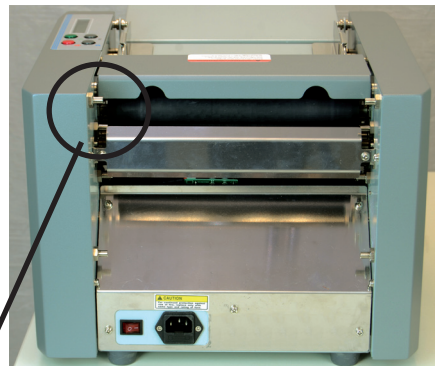


Fold stop

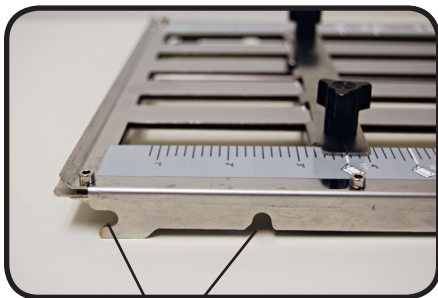
Half fold diverter

## Upper Fold Plate

Install the upper fold plate at an angle, as shown. Align the notches on each side of the fold plate with the pins on each side of the machine body. Push gently on the fold plate to lock it into position.



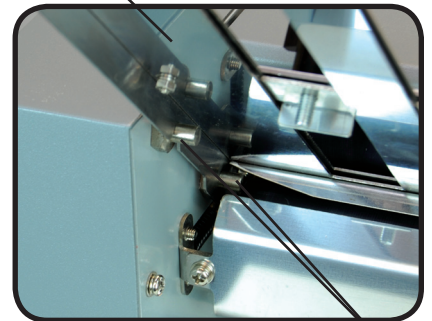
Upper fold plate



Upper fold plate notches



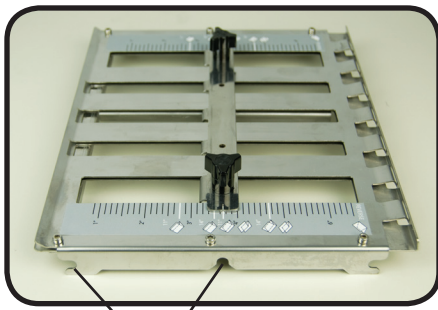
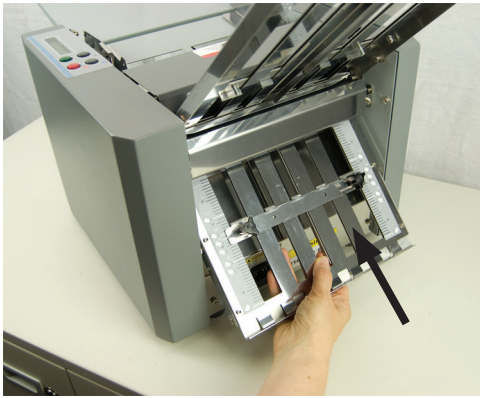
Upper fold plate pins



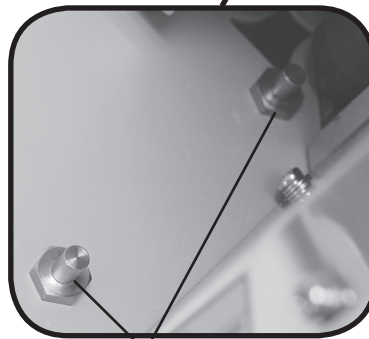
Upper fold plate seated on pins

## Lower Fold Plate

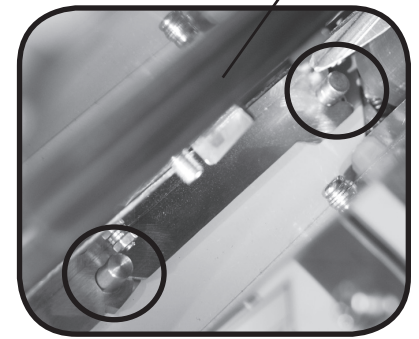
Install the lower fold plate at an angle, as shown. Align the notches on the fold plate with the lower fold plate pins. Push gently on the fold plate to lock it into position.



Lower fold plate notches



Lower fold plate pins



Lower fold plate seated on pins

## Setting Fold Plates

1. Determine the fold type and paper size.
2. Refer to the guides on each side of the upper and lower fold plates and set each one to correspond with the desired fold type and paper size.
3. To adjust the fold stops, loosen the two thumbscrews, slide the fold stop up or down to the correct position and tighten the thumbscrews. The fold stop notch should be centered on the white line matching the selected fold type and paper size.

**Note:** To process a Half Fold, set the upper fold plate stop to the proper position then remove the lower fold plate, rotate it 180° and re-install it.

To set custom folds, refer to the chart on page 7.



Fold stop position decal on upper fold plate.



Loosen the thumbscrews to adjust the fold stop position.

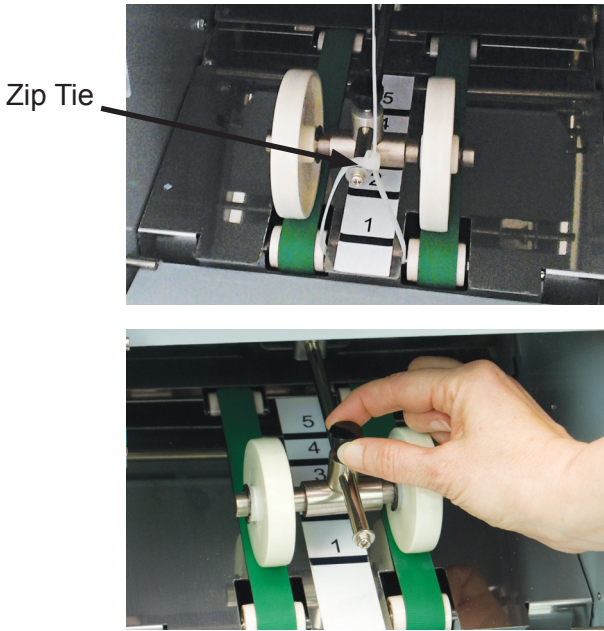






Align the fold stop notch with the icon that matches the fold type and paper size.



## Setting Outfeed Stacker Wheels

1. A zip tie is used to hold the outfeed wheels in place during shipping. Cut and remove the tie before proceeding. Adjust outfeed wheels to match the fold type and paper size. NOTE: This is important for proper outfeeding. Loosen the thumbscrew and slide the tires up or down to the correct position. Refer to the guide at right for the correct position. Tighten the thumbscrew to hold the tires in place.



Stacker Wheel Position		
Fold Type	LT (11")	LGA (14")
Letter "C" 	3	2
Accordion "Z" 	3	2
Double Parallel 	4	3
Half "V" 	1	0

## Loading Paper and Adjusting Side Guides

1. Load the paper by pressing down on the spring-loaded infeed guide. Be sure the leading edge of the paper is under the feed tires.

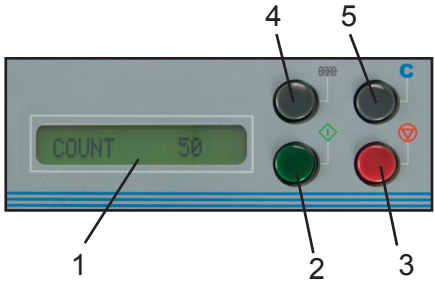


2. After loading the paper, adjust the side guides by gently pinching them and sliding them inward toward the paper stack. Be sure they are snug against the paper stack, then loosen slightly to leave a gap of approximately 1mm on each side. The paper should lie flat.




## Control Panel

1	LCD Screen	Displays status, counter, batch counter, any faults
2	START Button	Press to start operation
3	STOP Button	Press to stop operation
4	BATCH Button	Press to change batch counting quantity and interval
5	CLEAR/RESET Button	Press to clear counter






### Counter:

The FD 314 has a 3 digit resettable counter that will count up as the paper is folded. To reset the counter, press and hold the “C” button  for 3 seconds.






### AutoBatch Counting:

To fold a set number of sheets with a pause between sets, use the AutoBatch Counter. Press the Batch button  repeatedly to set the number of sheets to be folded, then press the red Stop button  to set the number of seconds between each set (up to 30 seconds). Press the Batch button  to adjust the time delay (the delay will cycle up to 30 seconds and then go back to 0).



### AutoBatch Last Form Adjustment:

The speed of the last three forms can be adjusted when using AutoBatch for accurate sets. For example, if 10 sheets are programmed in AutoBatch and 11 are pulled, the speed of the last three forms needs to be reduced, if only 9 sheets are pulled the speed of the last three forms needs to be increased. To enter the last form adjustment mode press and hold the Stop button  for 3 seconds, the screen will read “M\_Count: ### MS”, note the number shown, then press the Batch button  to adjust the speed (the speed will cycle up to 495 MS and then go back to 005). To increase the speed, set to a higher number and to decrease the speed, set to a lower number. To exit press the Stop button  one time.

## Paper Out:

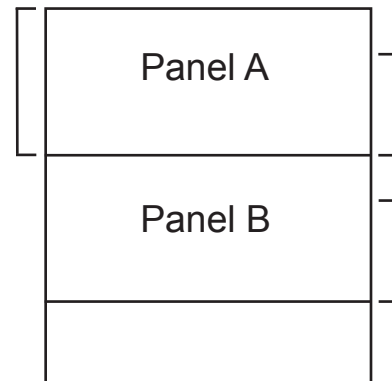
If the control panel reads “NO PAPER”, check the infeed tray and reload paper. The screen will reset when paper is loaded.



## Setting Custom Folds

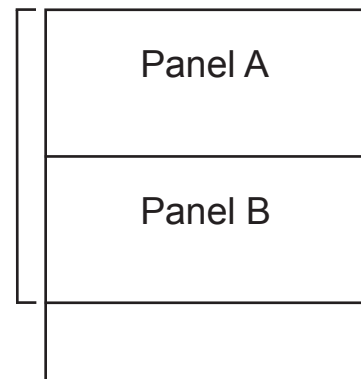
### Example 1: Uneven “C”

1. Measure the length of panel “A”
2. Adjust the upper fold plate so that the stop plate lines up with the measurements of the panel “A” i.e. if panel “A” is 5 1/4” long slide the stop plate up or down so that it lines up with the 5 1/4” mark on the fold plate.
3. Measure the length of panel “B”
4. Adjust the lower fold plate so that the stop plate lines up with the measurement of panel “B”
5. Load forms and press test. If folds are too long or too short adjust accordingly.



### Example 2: Uneven “Z”

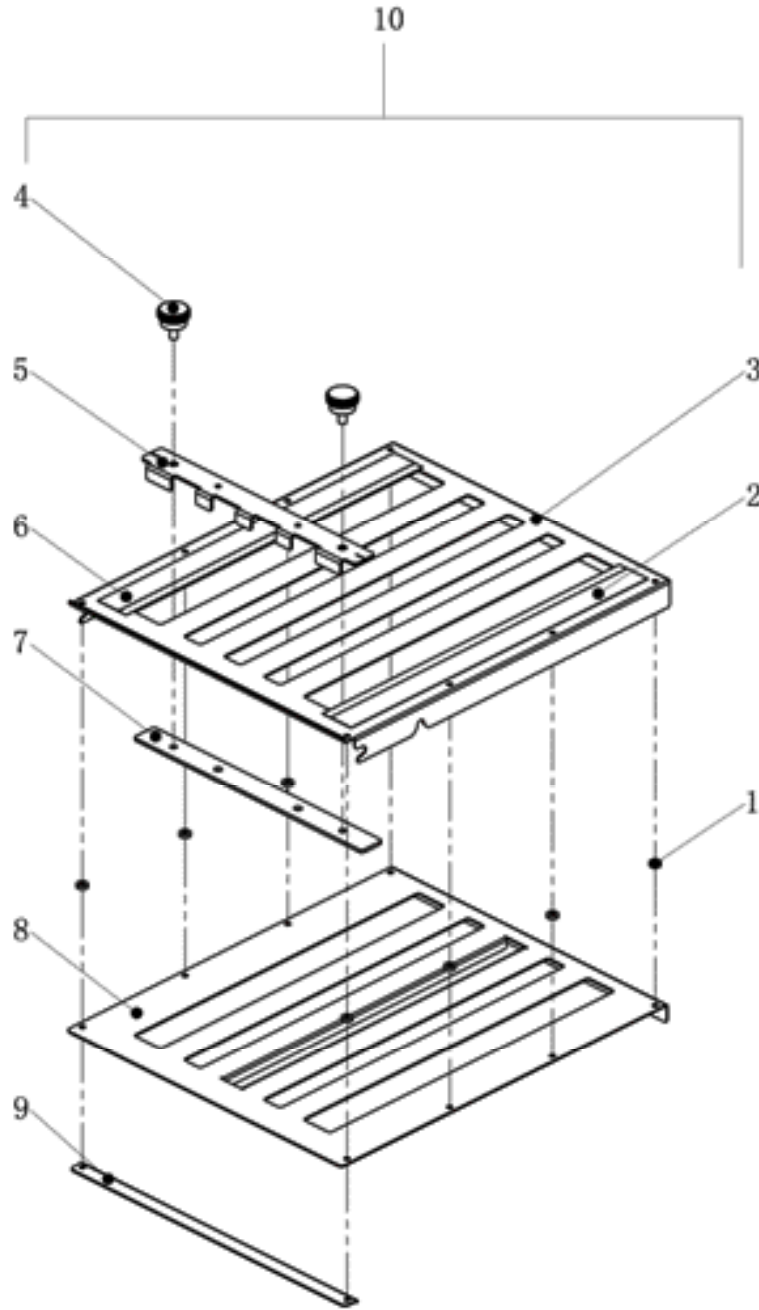
1. Measure the length of panel “A” & “B”
2. Adjust the upper fold plate so that the stop plate lines up with the measurements of panel “A” & “B”. i.e. if panel “A” & “B” are 9” long slide the stop plate up or down so that it lines up with the 9” mark on the fold plate.
3. Measure the length of panel “B”
4. Adjust the lower fold plate so that the stop plate lines up with the measurement of panel “B”
5. Load forms and press test. If folds are too long or too short adjust accordingly.



## Troubleshooting

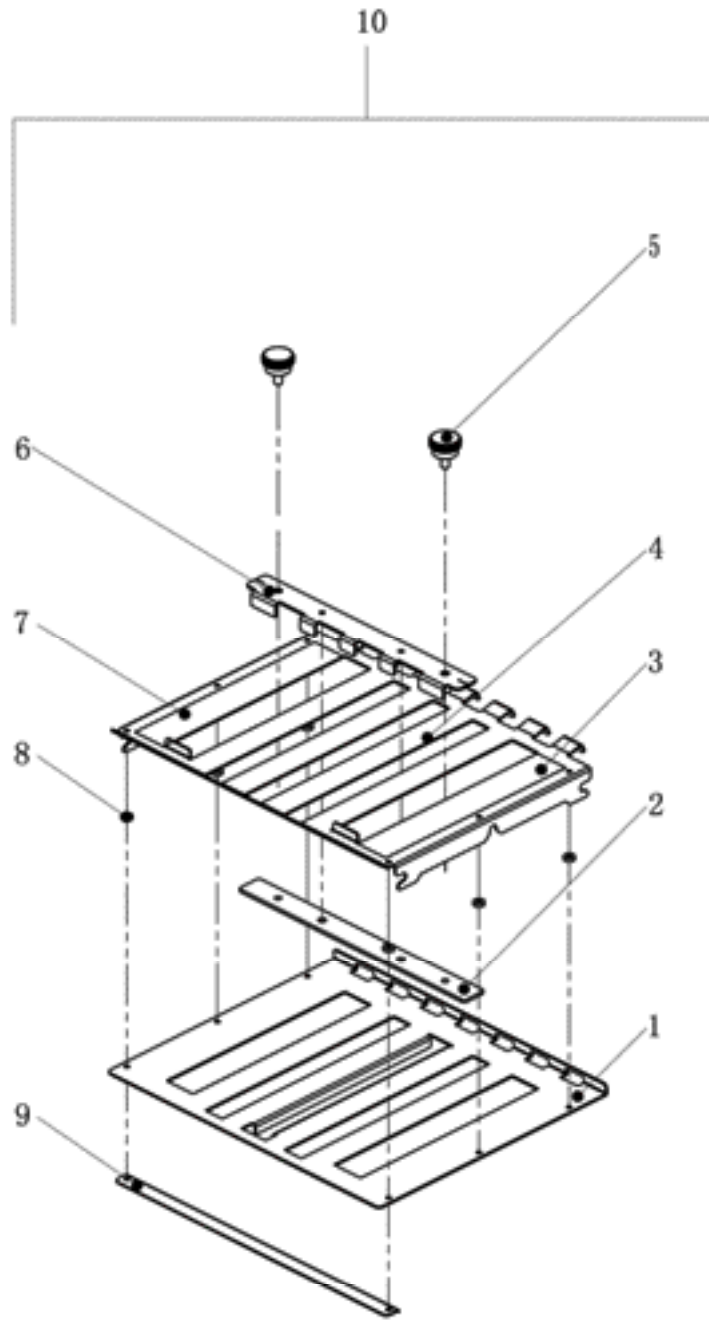
<b>PROBLEM:</b>	<b>SOLUTION:</b>
Folder will not start	Check that power cord is plugged into the folder and an electrical outlet
	Check that the power switch is ON
Paper will not feed	Adjust the paper guides so a single sheet of paper slides freely between the guides without excessive play
	Check to be sure the paper is properly loaded in the infeed tray, with the leading edge under the feed tires.
Paper folding incorrectly	Check that fold plates are inserted correctly (upper on top, lower on bottom) and that they're properly seated on their alignment pins
	Check the fold stops to be sure they match the positions show on the guide (see page 3) and that the thumbscrews have been tightened
Overload	Check outfeed wheels to be sure they are properly adjusted for fold type and paper size. Turn folder off and on to reset.
"PAPER ERR" displayed on control panel	Turn off power and check the fold plates to see if paper is jammed. If it is, remove the fold plate(s), remove the jammed paper and re-install the fold plate(s).

## PARTS - Upper Fold Plate



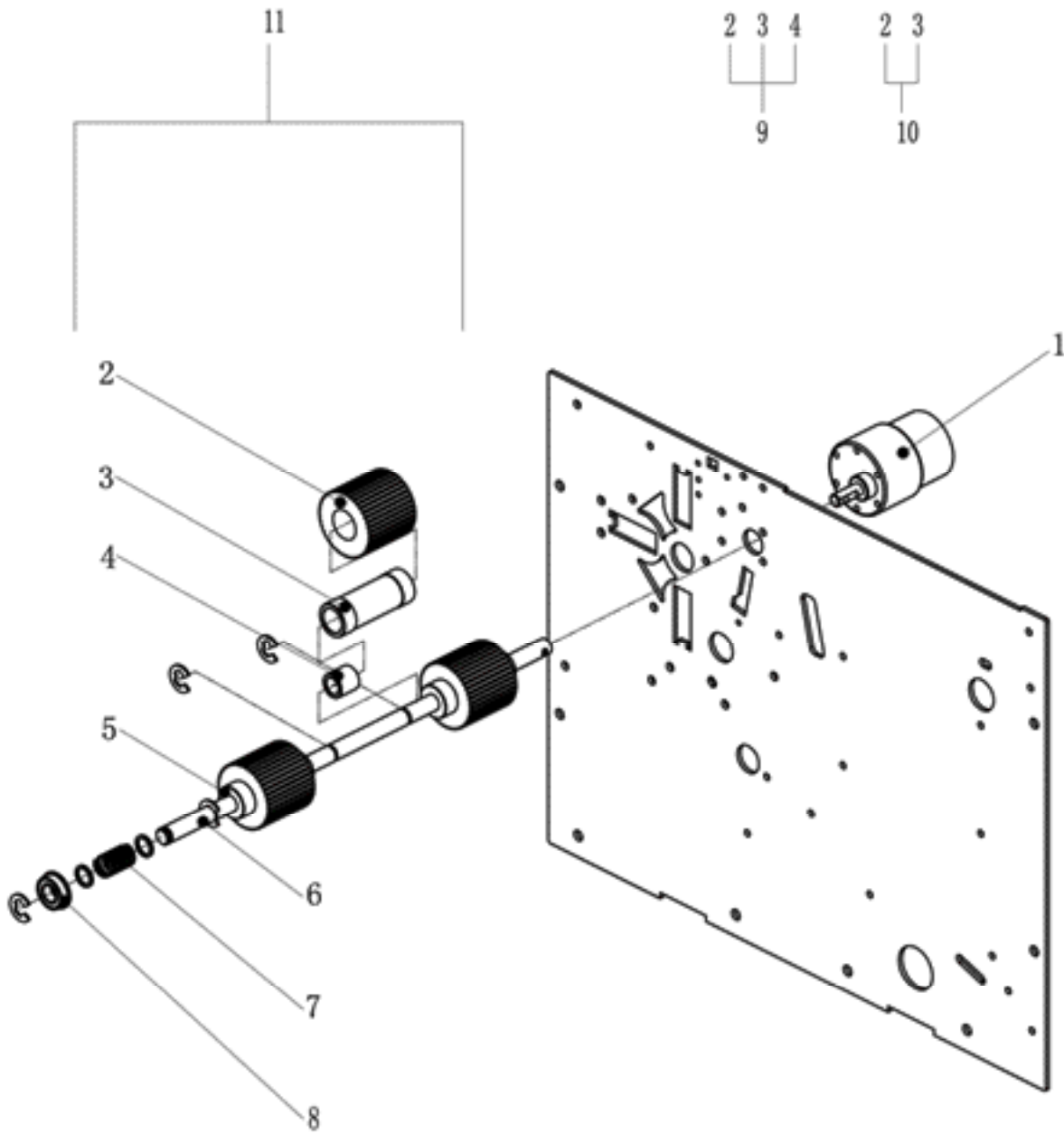
Item #	Part #	Description	Qty
1	3.2-7.2-2	Plastic pad	8
2	325-0615	Upper fold plate label (right)	1
3	01-10143	Upper fold plate (top)	1
4	372-0126	Knob nut	2
5	01-10181	Stopper	1
6	325-0616	Upper fold plate label (left)	1
7	01-10410	Separator	1
8	01-10173	Upper fold plate (bottom)	1
9	01-10400	Support plate	1
10	01-L0010	First fold plate assembly	1

## PARTS - Lower Fold Plate



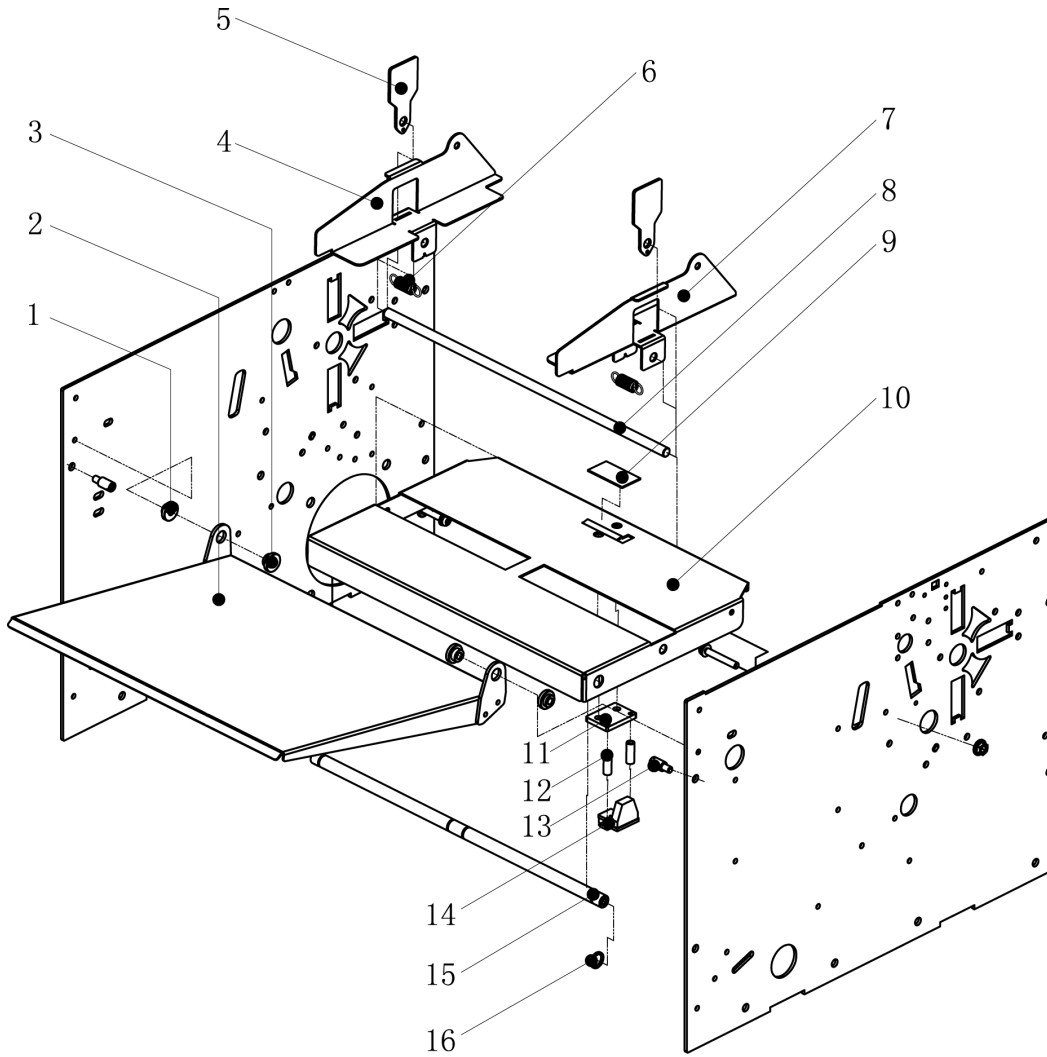
Item #	Part #	Description	Qty
1	01-10275	Lower fold plate (bottom)	1
2	01-10410	Separator	1
3	325-0609	Lower fold plate label (right)	1
4	01-10265	Lower fold plate (top)	1
5	372-0126	Knob nut	2
6	01-10181	Stopper	1
7	325-0610	Lower fold plate label (left)	1
8	3.2-7.2-2	Plastic pad	8
9	01-10400	Support plate	1
10	01-L0020	Second fold plate assembly	1

# PARTS - Paper Feed Shaft Assembly



Item #	Part #	Description	Qty
1	03-B0041	Paper feed motor	1
2	01-40010	Paper feed roller	3
3	01-20300	Feeding roller core 1	1
4	HF0812	Bearing	1
5	01-30011	Feeding roller core 2	2
6	01-20022	Paper feed shaft	1
7	03-D0030	Spring	1
8	MF168	Bearing	1
9	01-L0030	Main feed roller assembly	1
10	01-L0040	Auxiliary feed roller assembly	2
11	01-L0050	Paper feed shaft assembly	1

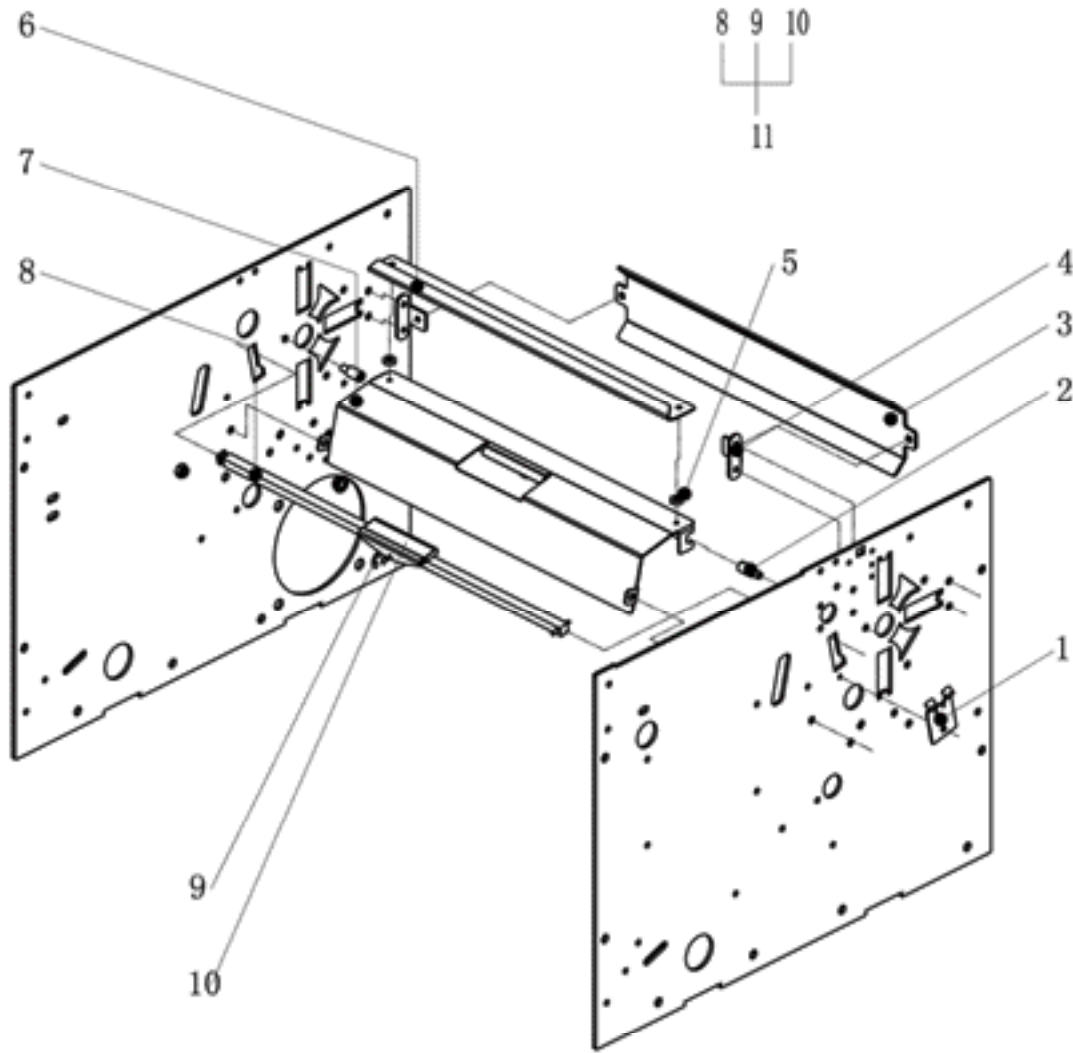
# PARTS



Item #	Part #	Description	Qty
1	01-80080	Separator pad	2
2	01-60031	Auxiliary paper feed plate	1
3	01-80070	Bush	2
4	01-10253	Paper guide left	1
5	01-10242	Shrapnel	2
6	01-D0030	Spring	2
7	01-10233	Paper guide right	1
8	01-20100	Guiding shaft	1
9	01-A0010	Backward stopper	1
10	01-10212	Paper feed table	1
11	03-10511	Feed in sensor support	1
12	3*5*15	Spacer pillar	2
13	03-20350	Pillar	2
14	03-B0050	Paper feed in sensor	1
15	01-20111	Fixing shaft	1
16	01-H0020	Pad	2

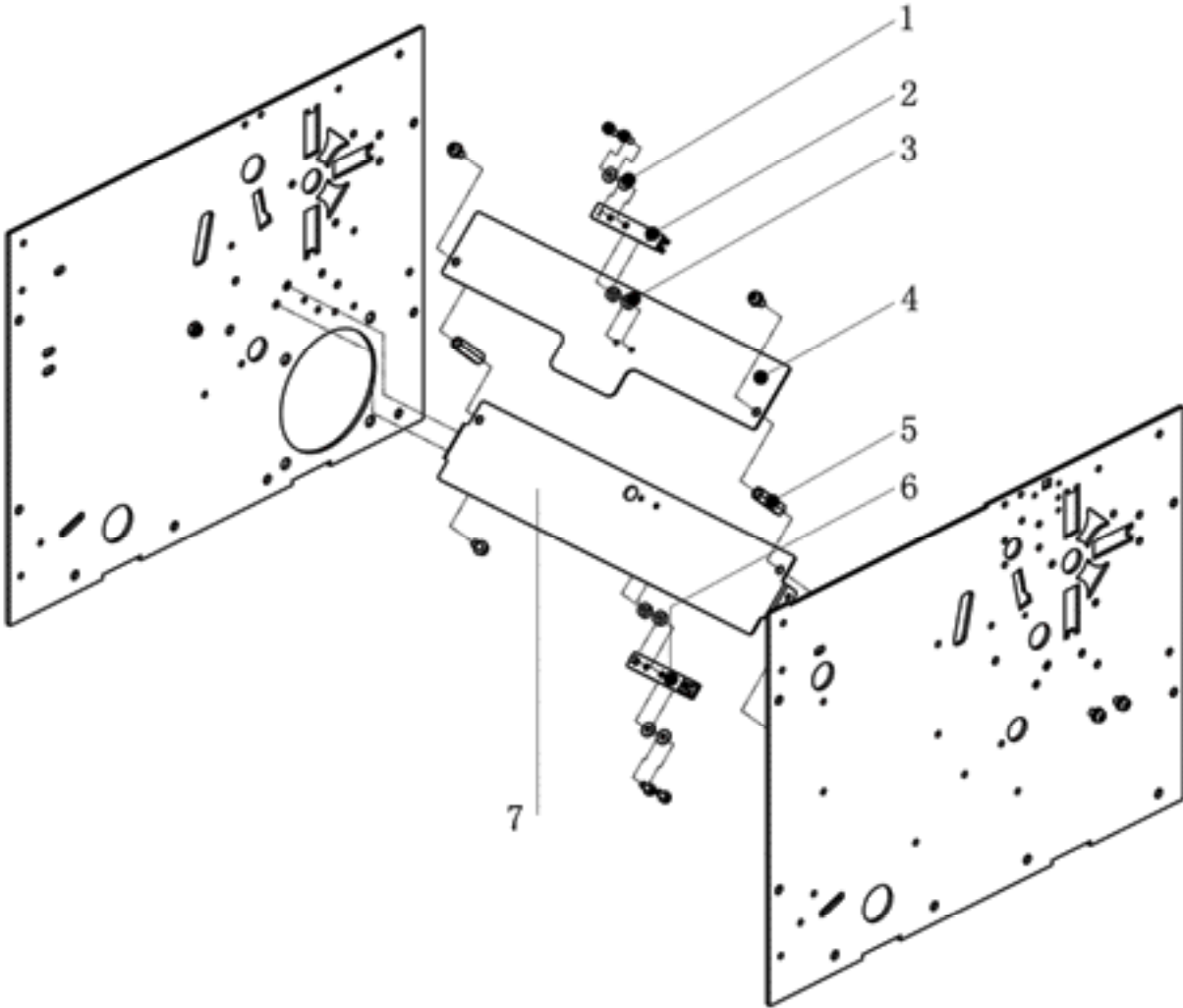


# PARTS



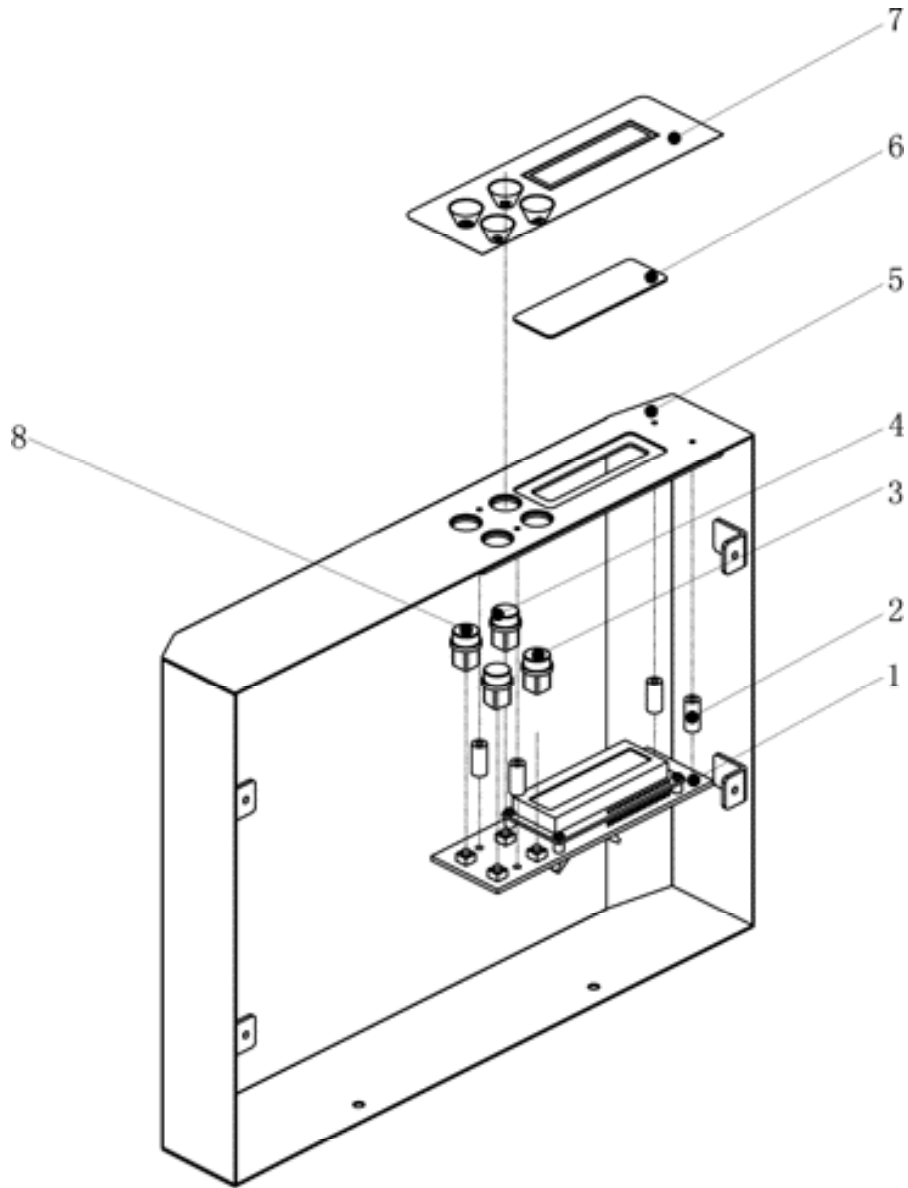
Item #	Part #	Description	Qty
1	01-10071	Holder plate	1
2	03-20350	Pillar	2
3	01-10311	Frame	1
4	03-10530	Holder plate	2
5	3*7*3	Spacer pillar	1
6	01-10205	Paper feed guide (upper)	1
7	01-10053	Paper feed guide (lower)	1
8	01-20070	Paper separator holder	1
9	01-30050	Paper separator support	1
10	01-A0010	Paper separator	1
11	01-L0060	Paper separator holder assembly	1

# PARTS



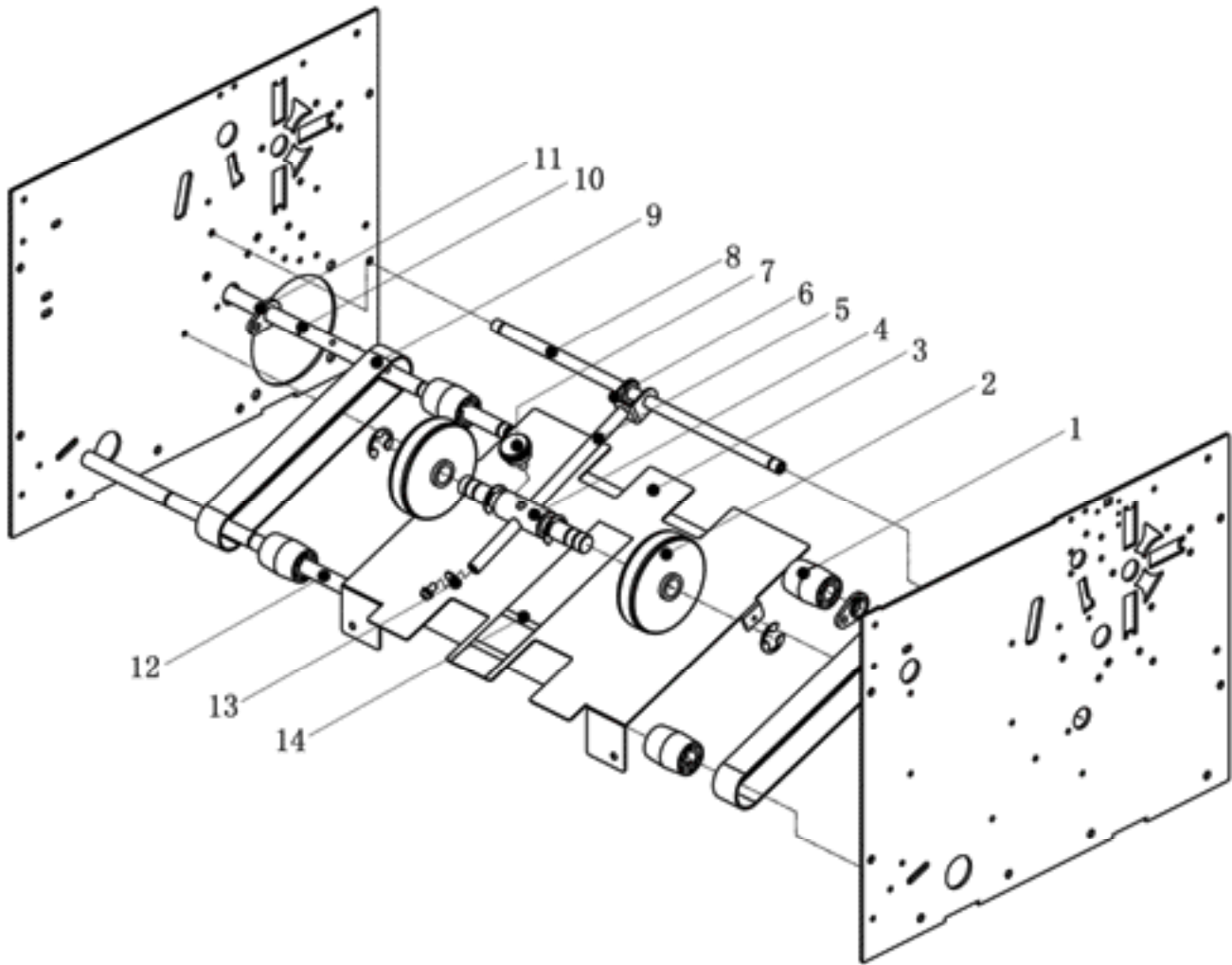
Item #	Part #	Description	Qty
1	3*8*1	Plastic pad	4
2	03-B0030	PCB receiver	1
3	3*7*2	Spacer pillar	4
4	01-60071	Stacker guide unit (top)	1
5	M4*25	Spacer pillar	2
6	03-B0020	PCB emitter	1
7	01-60081	Stacker guide unit (bottom)	1

## PARTS - Control Panel



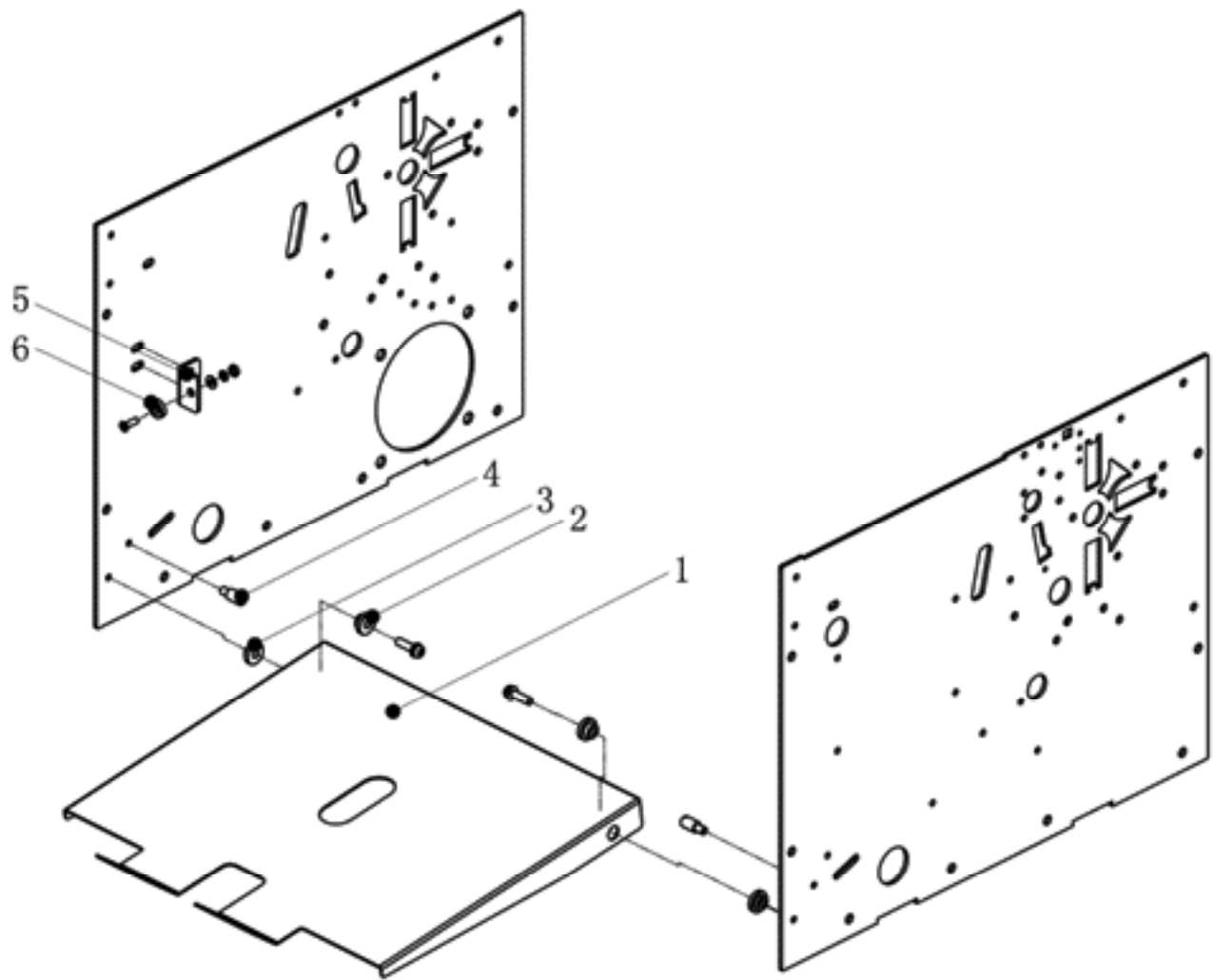
Item #	Part #	Description	Qty
1	03-B0100	Control panel PCB unit	1
2	3*7*15	Spacer pillar	4
3	03-30120	Grey button	2
4	03-30100	Green button	1
5	314-OPCOV	Front side cover	1
6	01-A0070	Panel cover	1
7	314-CP	Panel instruction label	1
8	01-30110	Red button	1

## PARTS - Output Conveyor Wheels



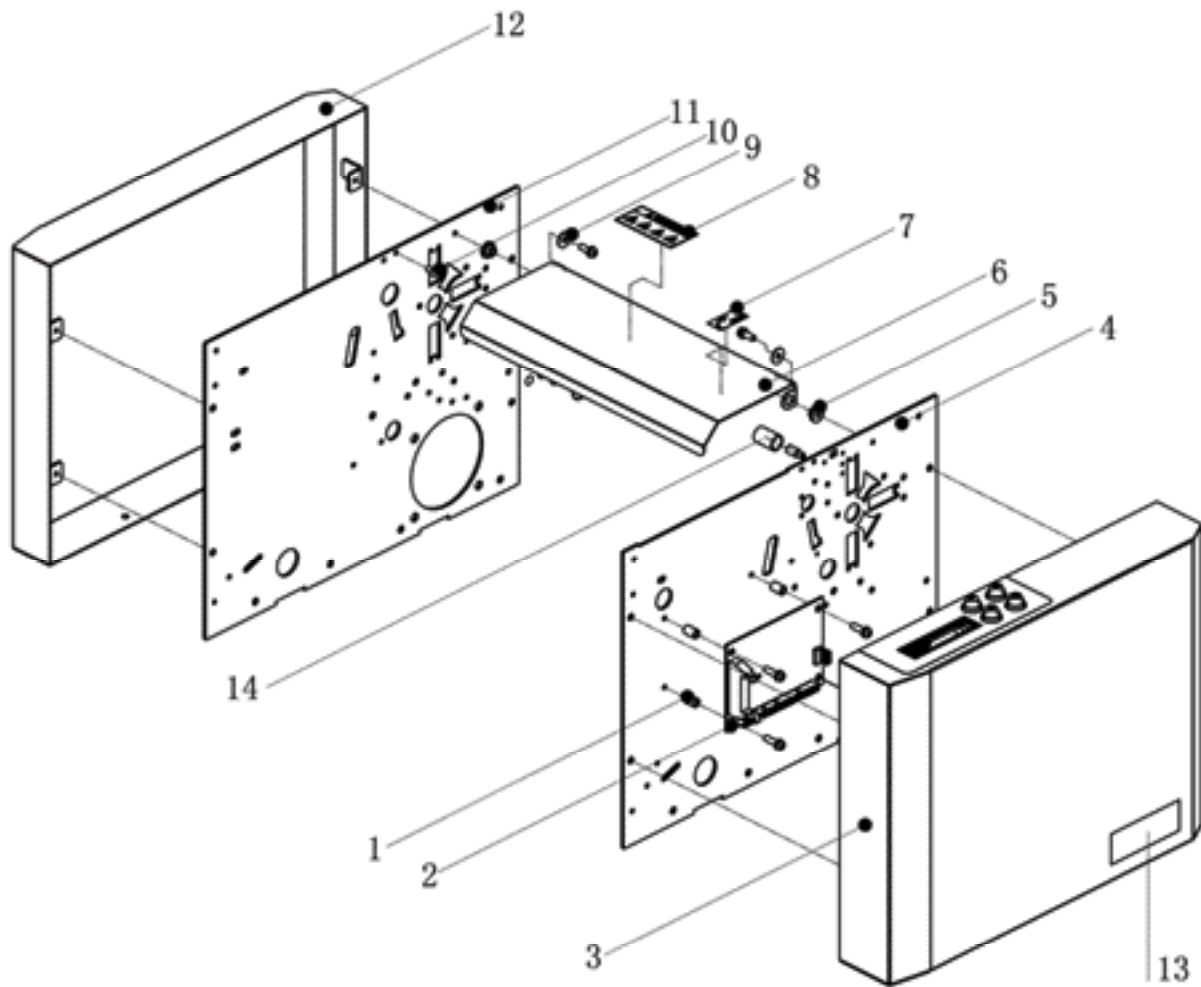
Item #	Part #	Description	Qty
1	03-30040	Roller	4
2	03-30060	Press roller	2
3	01-10121	Support plate	1
4	01-20110	Guide shaft	1
5	01-20100	Moving shaft	1
6	01-10381	Guide holder	1
7	M5-20-13-10	Lock screw	1
8	01-20111	Horizontal shaft	1
9	01-A0020	Flat belt	2
10	01-L0060	Main paper delivery shaft	1
11	03-80020	Bush	2
12	01-20080	Auxiliary paper delivery shaft	1
13	M4*12*1	Flat pad	1
14	01-E0020	Paper delivery label	1

## PARTS - Output Conveyor Tray



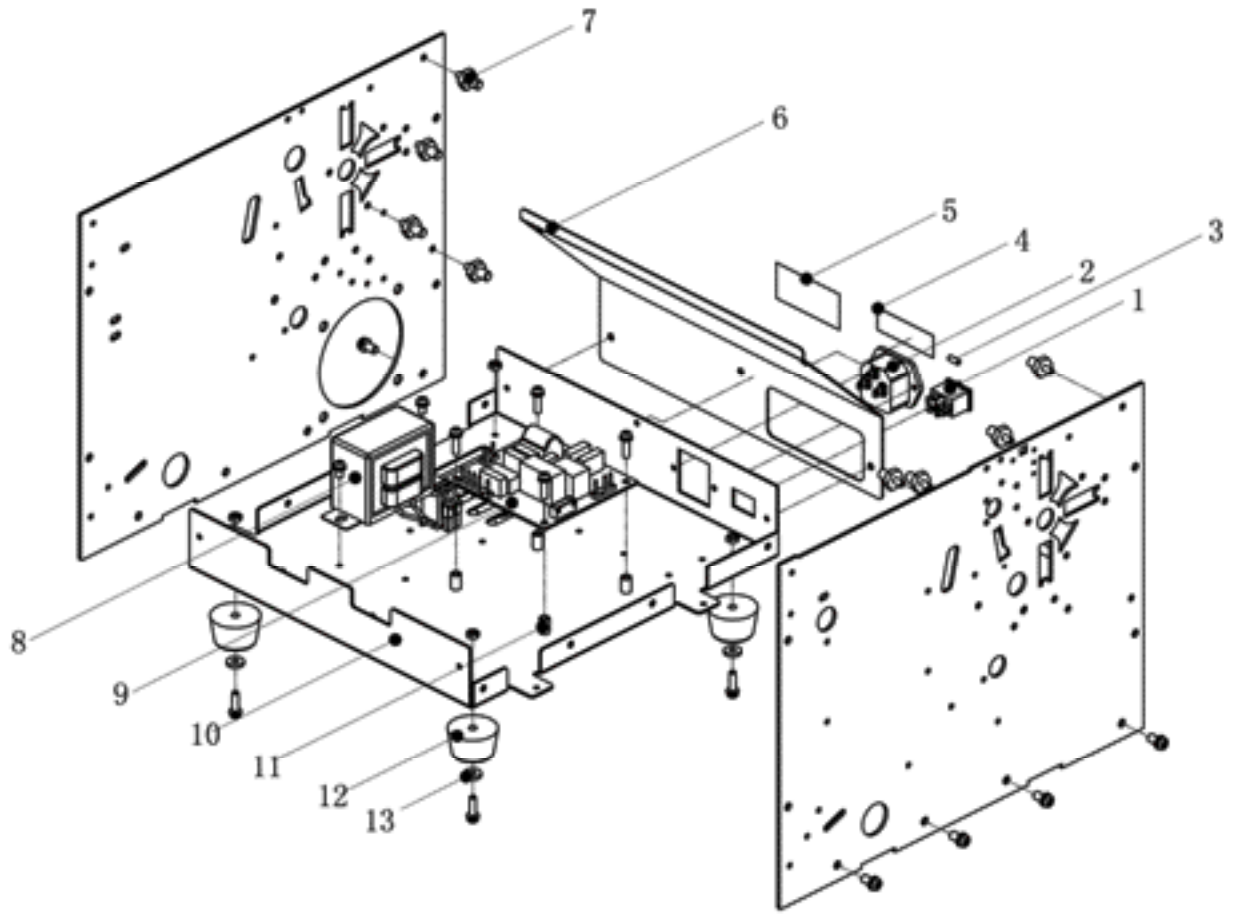
Item #	Part #	Description	Qty
1	01-10302	Receiver plate	1
2	01-80070	Bush	2
3	01-80080	Pad	2
4	03-20350	Pillar	2
5	03-10090	Holder	1
6	01-A0050	Magnet	1

# PARTS



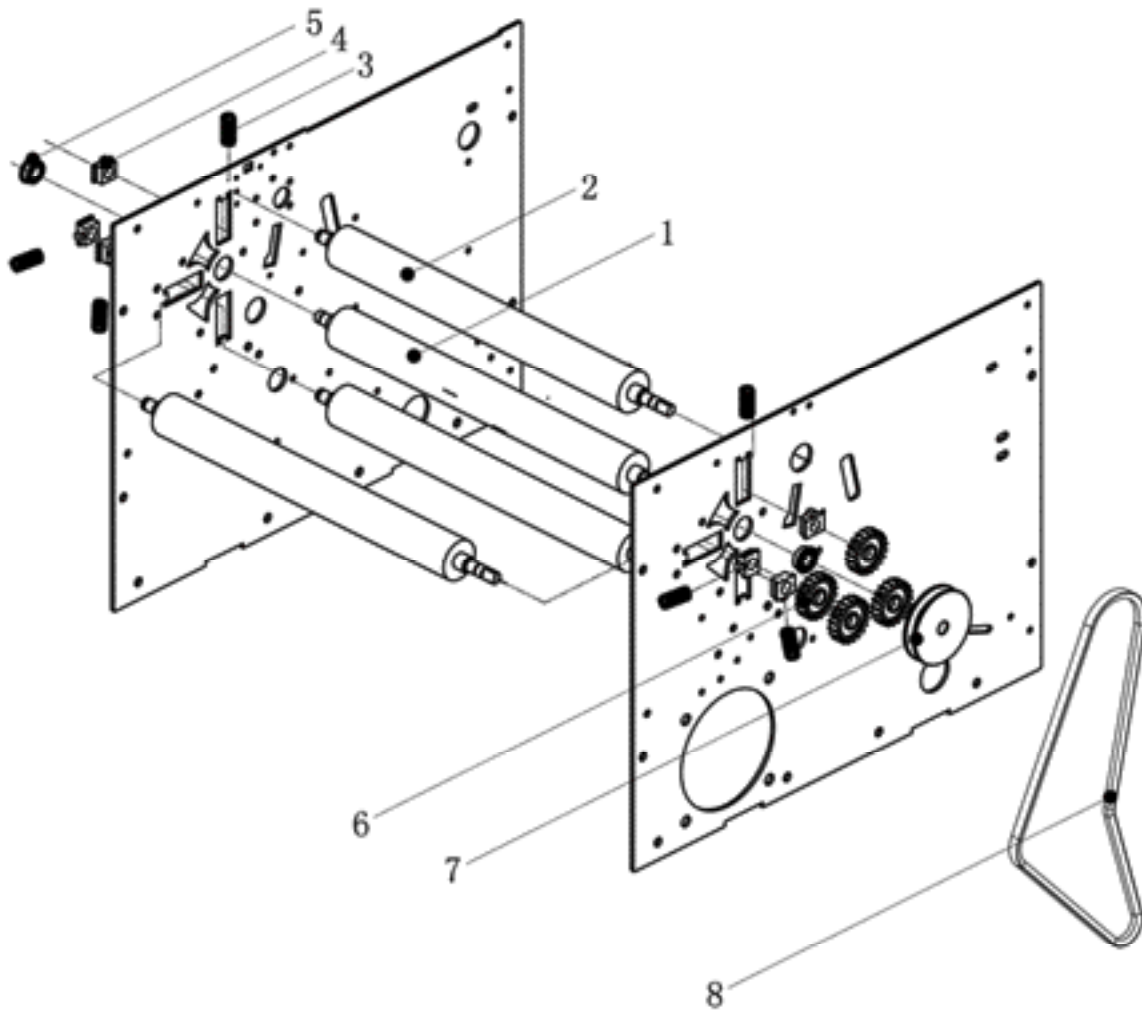
Item #	Part #	Description	Qty
1	4*7*11	Spacer pillar	4
2	03-B0121	Control PC board	1
3	385-0129	Front side cover assembly	1
4	01-10015	Front side support plate	1
5	01-80070	Bush	2
6	385-0131	Top cover	1
7	03-E0060	Open label	1
8	325-0295	Warning label	1
9	M4*12*1	Flat pad	2
10	4*7*6	Spacer pillar	2
11	01-10025	Back side support plate	1
12	385-0130	Back side cover assembly	1
13	325-0464	Formax Logo	1
14	03-40020	Rubber bush	2

# PARTS



Item #	Part #	Description	Qty
1	03-B0170	Power switch	1
2	03-B0180	Inlet	1
3	TH3.14A	Fuse	1
4	03-E0080	Caution label	1
5	01-E0100	Series tag	1
6	01-10132	Protection cover	1
7	03-20220	Pillar	8
8	03-B0142	Transformer	1
9	03-B0130	Power PC board	1
10	01-10032	Base	1
11	4*7*11	Spacer pillar	4
12	03-40010	Basement support	4
13	M4*11*2	Flat pad	4

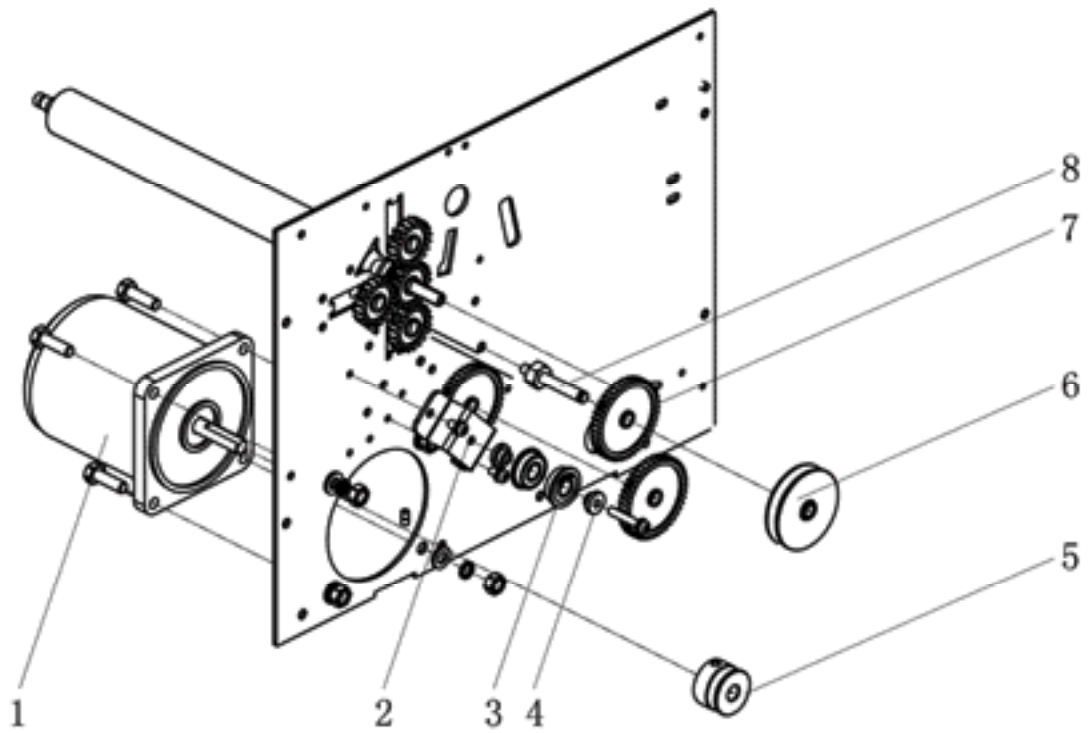
# PARTS



Item #	Part #	Description	Qty
1	01-50010	Main press roller	1
2	01-50020	Auxiliary press roller	3
3	03-D0010	Spring	1
4	01-80010	Bush	6
5	F687	Bearing	2
6	01-30040	Gear	4
7	01-20050	Motor pulley	1
8	VC6*450	V belt	1

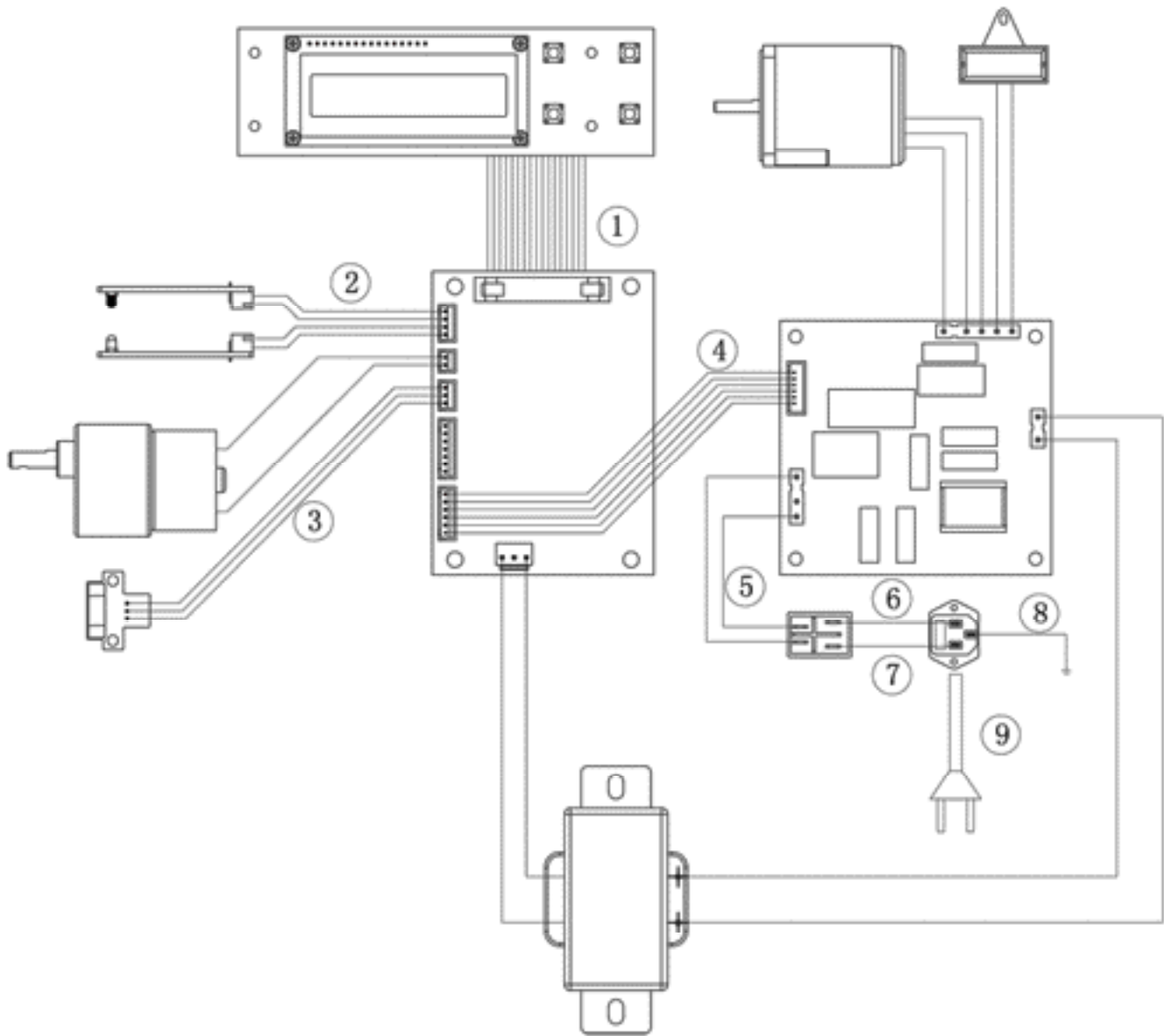


# PARTS



Item #	Part #	Description	Qty
1	01-B0010	Motor 110V 25W	1
2	03-10790	Fixing plate	1
3	F698	Bearing	2
4	01-80070	Bush	2
5	01-20060	Motor pulley	1
6	02-00010	Paper delivery belt assembly	1
7	03-30060	Gear	2
8	03-20130	Pillar	1

## PARTS - Electrical



Item #	Part #	Description	Qty
1	01-N0010	20P wire	1
2	01-N0020	Paper out sensor wire	1
3	01-N0030	Paper feed in sensor wire	1
4	01-N0040	6P data wire	1
5	01-N0050	Power connection wire	1
6	01-N0060	Live wire	1
7	01-N0070	Zero wire	1
8	01-N0080	Ground wire	1
9	01-N0090	Power cord	1