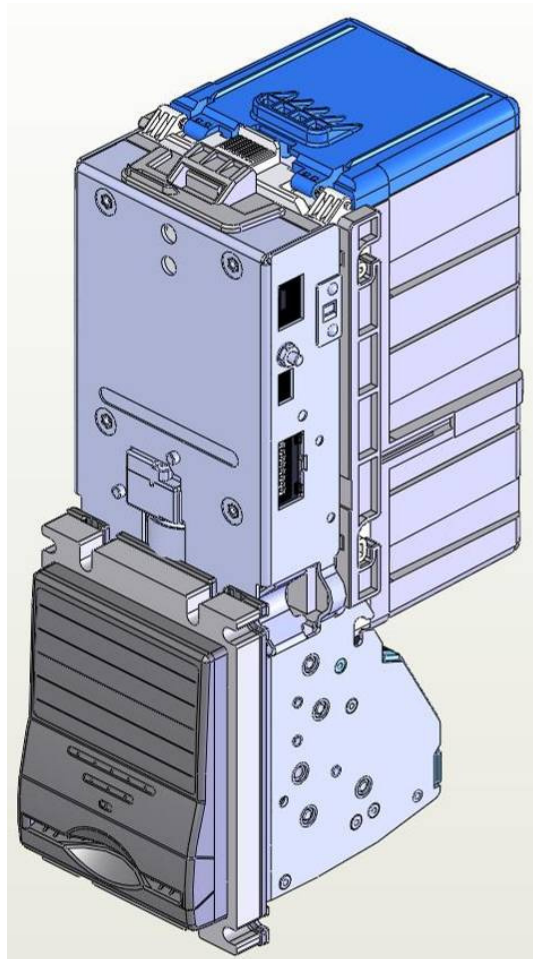




# SMV BackLoad Bill Validator

## Operation and Service Manual



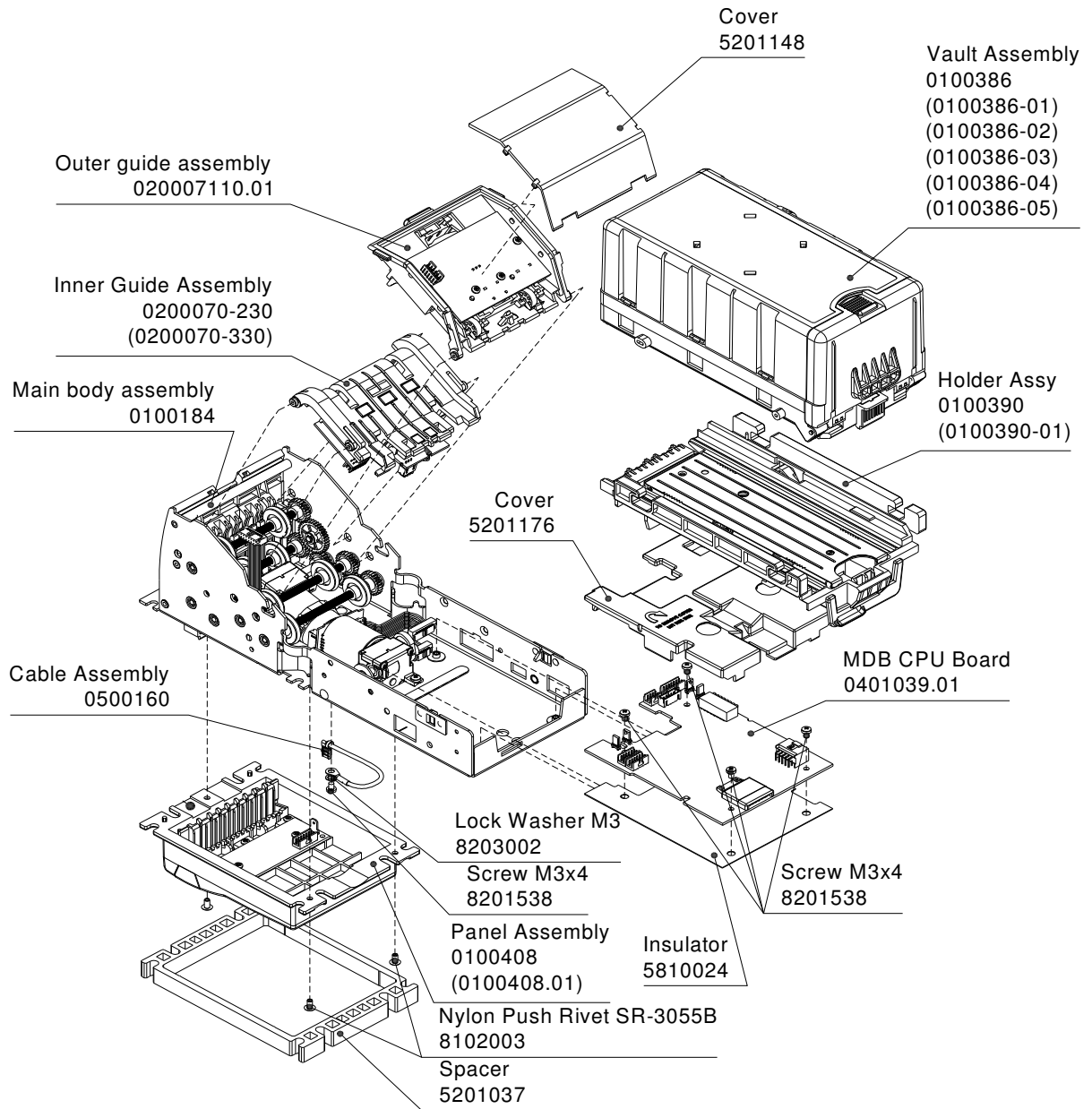
## Part 2. TESTING AND REPAIR

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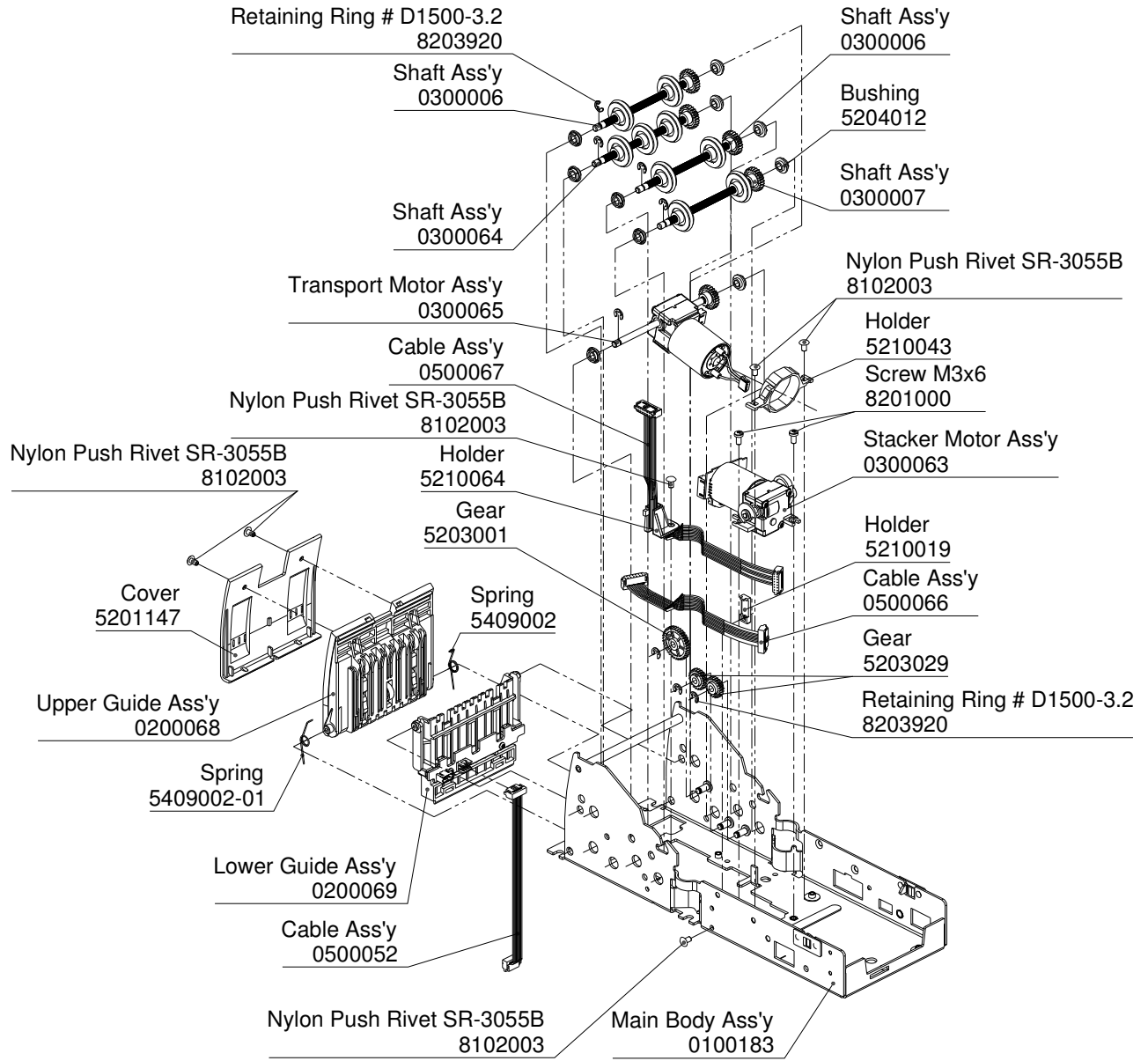
# SMV BILL VALIDATOR

## Exploded view of SMV Bill Validator Assembly



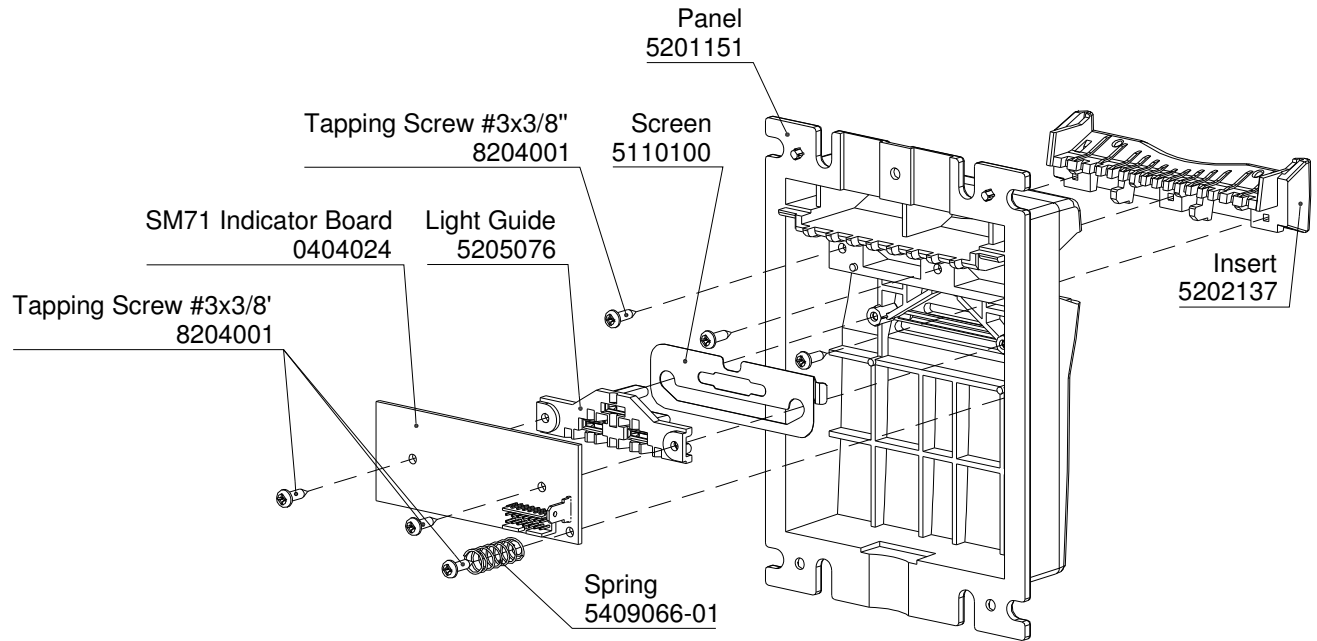
<b>Part ID</b>	<b>Description</b>	<b>SMV-4017</b>	<b>SMV-4019</b>	<b>SMV-4117</b>	<b>SMV-4119</b>
0100386	Vault Assembly	-	1	-	-
0100386-01	Vault Assembly	1	-	-	-
0100386-02	Vault Assembly	-	-	-	1
0100386-03	Vault Assembly	-	-	1	-
0100184-10.01	Main body assembly	1	-	1	-
0100184-11.01	Main body assembly	-	1	-	1
0100408.01	Panel Assembly	1	1	1	1
0200070-230.01	Inner Guide assembly	1	-	1	-
0200070-330.01	Inner Guide assembly	-	1	-	1
0200071-10.01	Outer Guide assembly	1	1	1	1
0100390	Holder	-	1	-	1
0100390-01	Holder	1	-	1	-
0401039.01	MDB CPU Board	1	1	1	1
5810024	Insulator	1	1	1	1
5201037	Spacer	1	1	1	1
5201176	Cover	1	1	1	1
5201148	Cover Assembly	1	1	1	1
0500160	Cable Assembly	1	1	1	1
8203002	Lock Washer M3	1	1	1	1
8102003	Nylon Push Rivet SR-3055B	3	3	3	3
8201538	Screw M3x4, Phillips	5	5	5	5

**Exploded view of Main Body Assembly (0100184)**



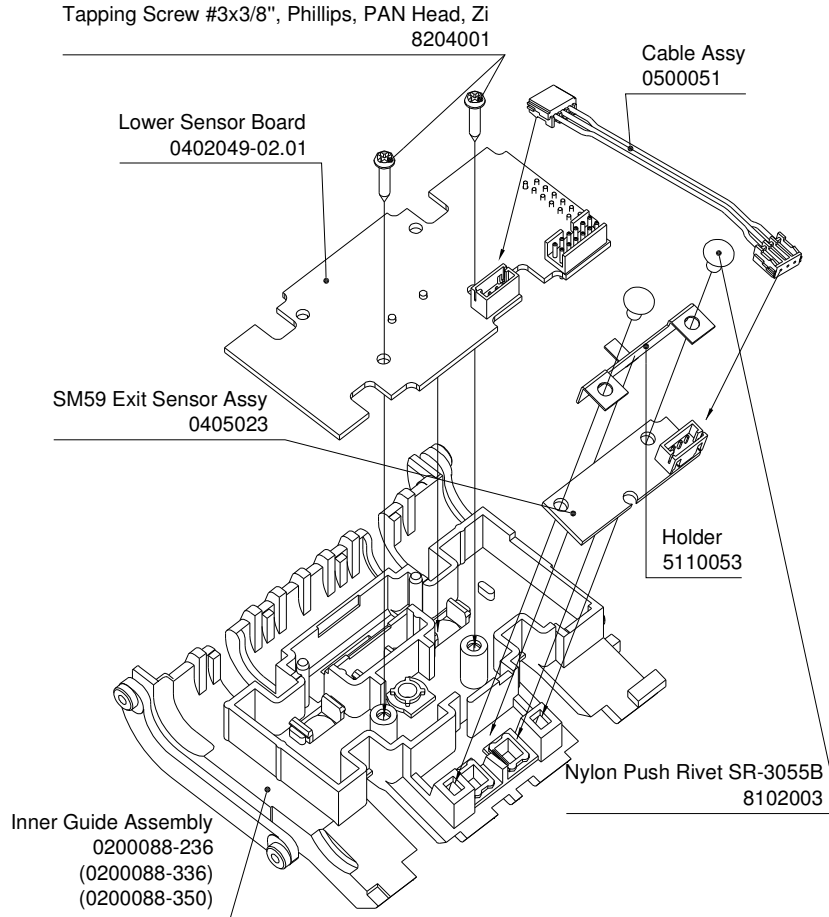
<b>Part ID</b>	<b>Description</b>	<b>0100184-10.01</b>	<b>0100184-11.01</b>
0500051	Cable Assembly	1	1
0500052	Cable Assembly	1	1
0500066	Cable Assembly	1	1
0500067	Cable Assembly	1	1
0300063.01	Stacker Motor Assembly	1	1
0100183-10	Main Body Assembly	1	1
0300065.01	Transport Motor Assembly	1	1
0200068	Upper Guide Assembly	1	1
0200069-2.01	Lower Guide Assembly	1	
0200069-3.01	Lower Guide Assembly		1
0500081	Cable Assembly	1	1
0300006	Shaft Assembly	2	2
0300007	Shaft Assembly	1	
0300015	Shaft Assembly		1
0300064	Shaft Assembly	1	1
5203001	Gear	1	1
5203029	Gear	1	1
5404012	Bushing	10	10
5201147	Cover	1	1
5409002	Torsion Spring	1	1
5409002-01	Torsion Spring	1	1
5210043	Holder	1	1
8203920	Retaining Ring D1500-3.2, Zinc	3	3
8102004	Nylon Push Rivet Heyco 9032	2	2
8102003	Snap Rivet SR-3055B	2	2
8201538	Screw M3x4, Phillips, Pan Head, Zinc	2	2
8412006	Super Lube with Syncolon	0.2g	0.2g
8406007	Loctite Threadlocker 242	0.02g	0.02g

**Exploded view of Facepanel Assembly (0100408.01).**



Part ID	Description	Qty
0404024-02.01	SM71 Indicator Board	1
5201151	Panel	1
5202137	Insert	1
5205076	Light Guide	1
5110100	Screen	1
5409066-01	Spring	1
8204001	Tapping Screw #3x3/8", Phillips, PAN Head, Zi 5 6	5

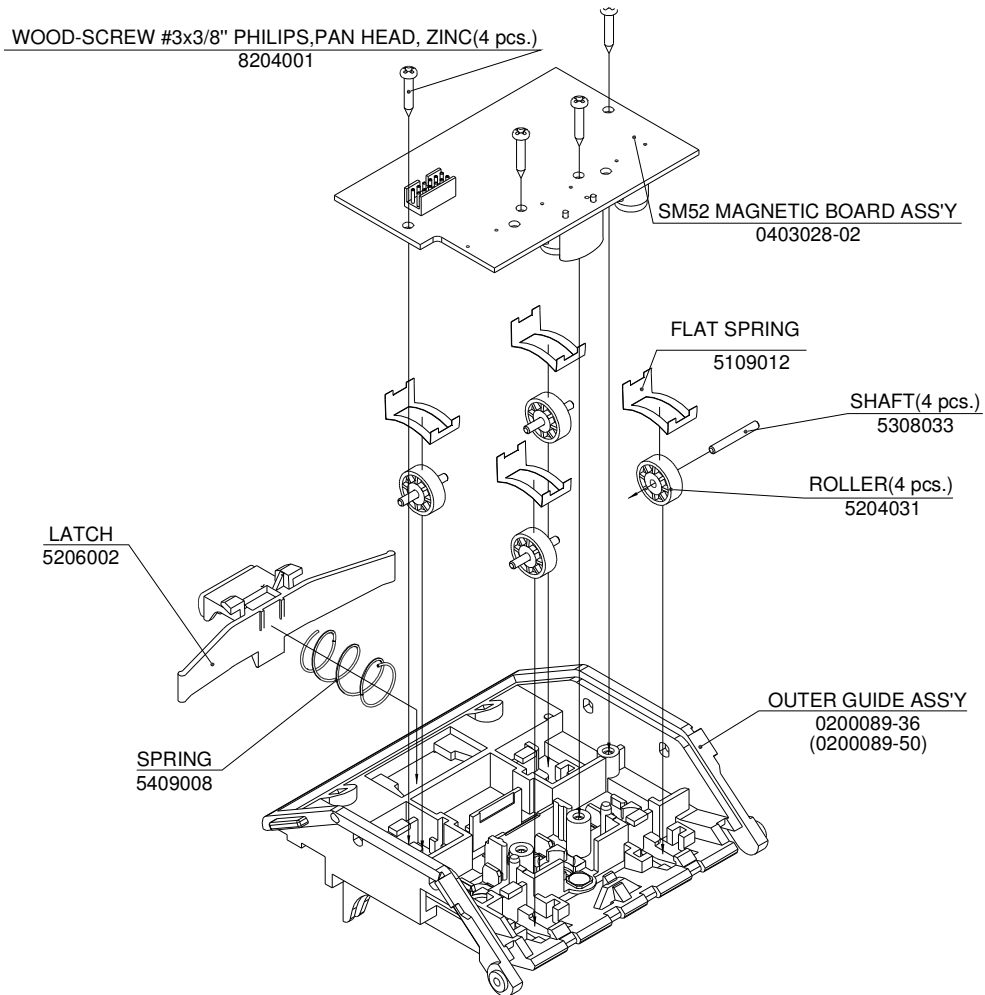
**Exploded view of Inner Guide Assembly (0200070).**



Part ID	Description	0200070-230.01	0200070-330.01
0500051	Cable Assembly	1	1
0402049-02.01	Optical Sensor Board	1	1
0405023.01	SM59 Exit Sensor Board	1	
0200088-236	Inner Guide	1	
0200088-336	Inner Guide		1
5110053	Holder	1	1
8102003	Nylon Push Rivet SR-3055B RMS#21	2	2
8204001	Tapping Screw #3x3/8" Phillips, Pan Head, Zi	2	2

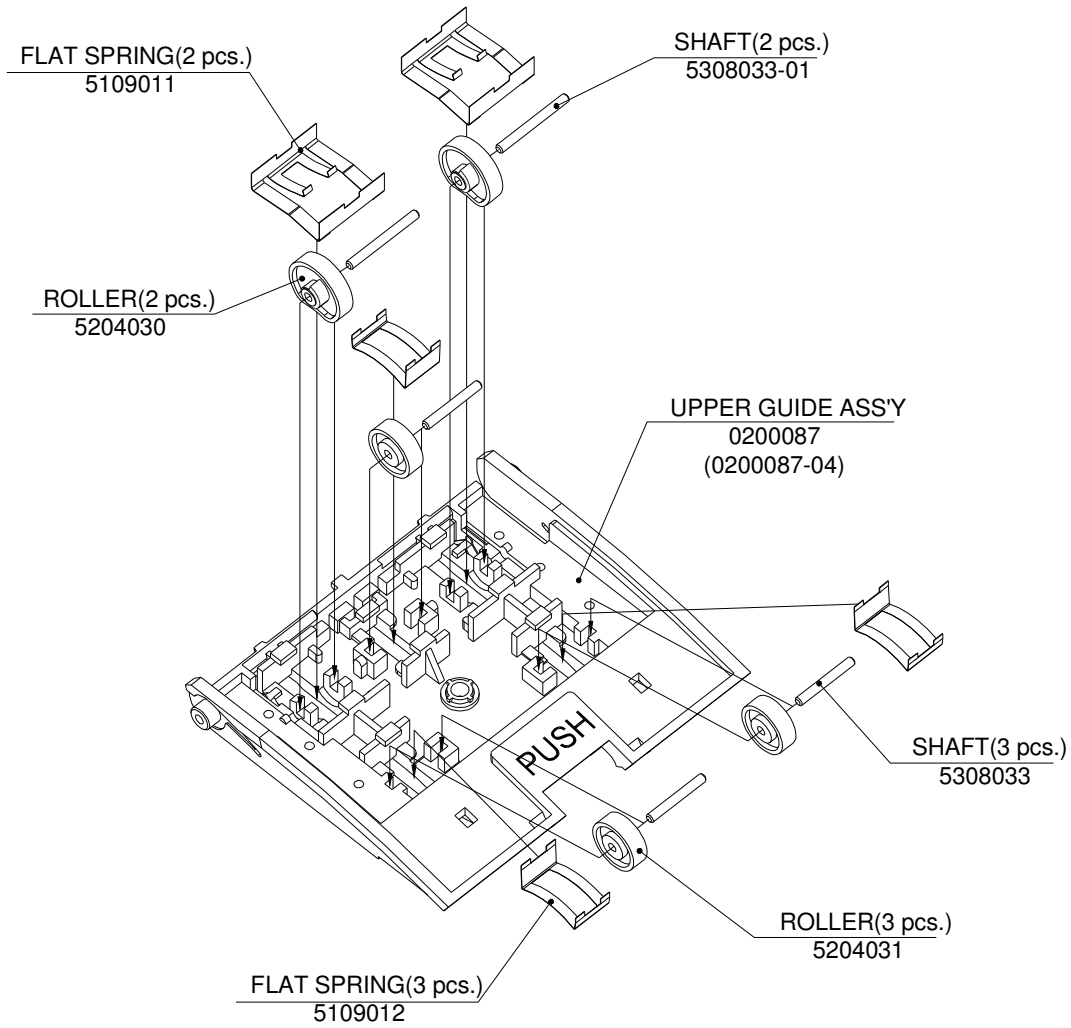


**Exploded view of Outer Guide Assembly (0200071-10).**



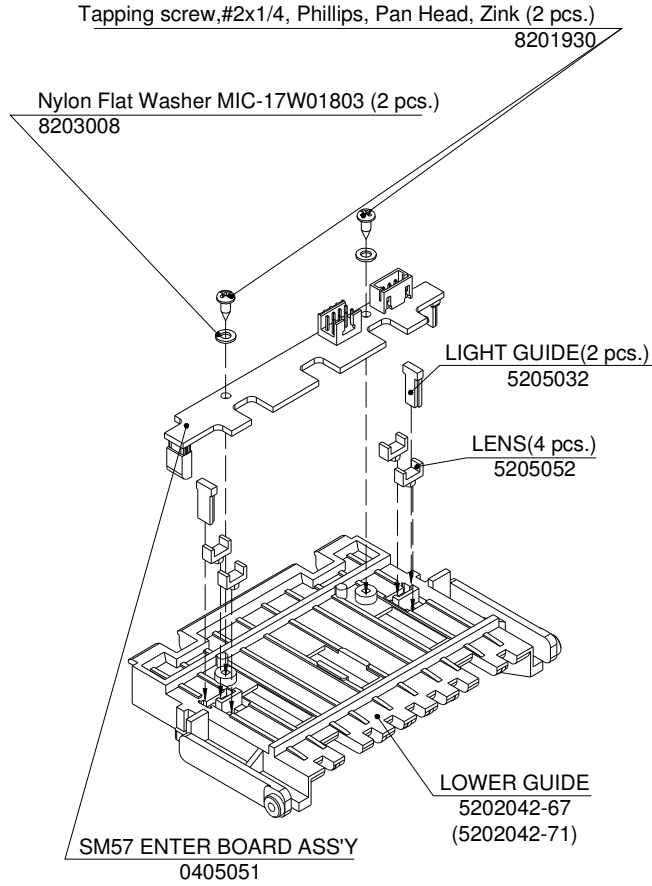
Part ID	Description	Qty
0403028-02.01	SM52Magnetic Board Assembly	1
0200089-36	Outer Guide Assembly	1
5308033	Shaft	4
5204031	Roller	4
5109012	Flat Spring	4
5206002	Latch	1
5409008	Spring	1
8404001	Wood-screw #3x3/8" Phillips, Pan Head, Zi	4

**Exploded view of Upper Guide Assembly (0200068)**



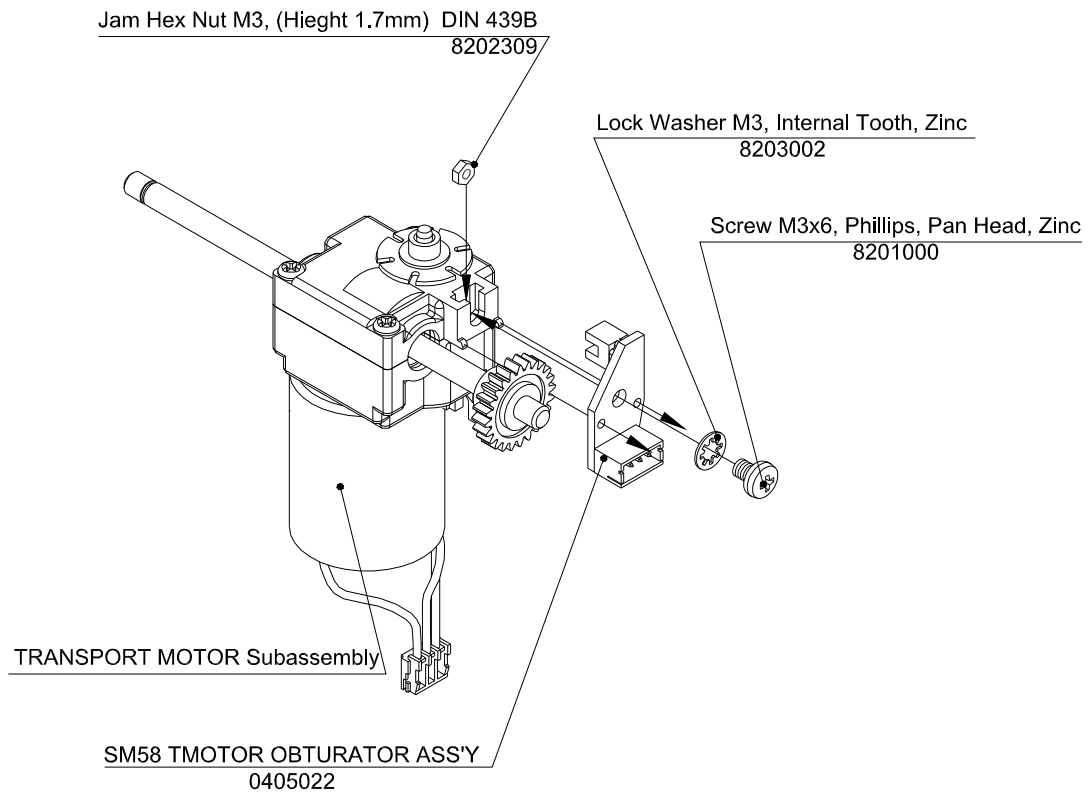
Part ID	Description	Qty
0200087	Upper Guide Assembly	1
5204030	Roller	2
5109011	Flat Spring	2
5308033	Shaft	3
5308033-01	Shaft	2
5204031	Roller	3
5109012	Flat Spring	3

**Exploded view of Lower Guide Assembly (0200069)**



Part ID	Description	0200069-2.01	0200069-3.01
0405051.01	SM57 Enter Board Assembly	1	1
5202042-67	Lower Guide	1	
5202042-71	Lower Guide		1
5205052	Lens	4	4
5205032	Light Guide	2	2
8201930	Tapping screw, #2x1/4, Phillips	2	2
8203008	Nylon Flat Washer MIC-17W01803	2	2

**Exploded View of Transport Motor Assembly (0300065).**



Part ID	Description	Qty
0300066	Drive Assembly	1
0500054	Cable Assembly	1
0405022.01	SM58 TMotor Obturator Assembly	1
8202309	Jam Hex Nut M3	1
8201000	Screw M3x6, Phillips, Pan Head, Zinc	1
8203002	Lock Washer M3, Internal Tooth, Zinc	1

### Tools required:

- Flat screwdriver
- Torque wrench
- Philips screwdriver #1
- Extractor 5110050
- Hex nut wrench (5.5 mm)
- Tweezers
- Hook
- Applicator Tools for DIN6799 #877324,
- Applicator Tool for VU01.05.001

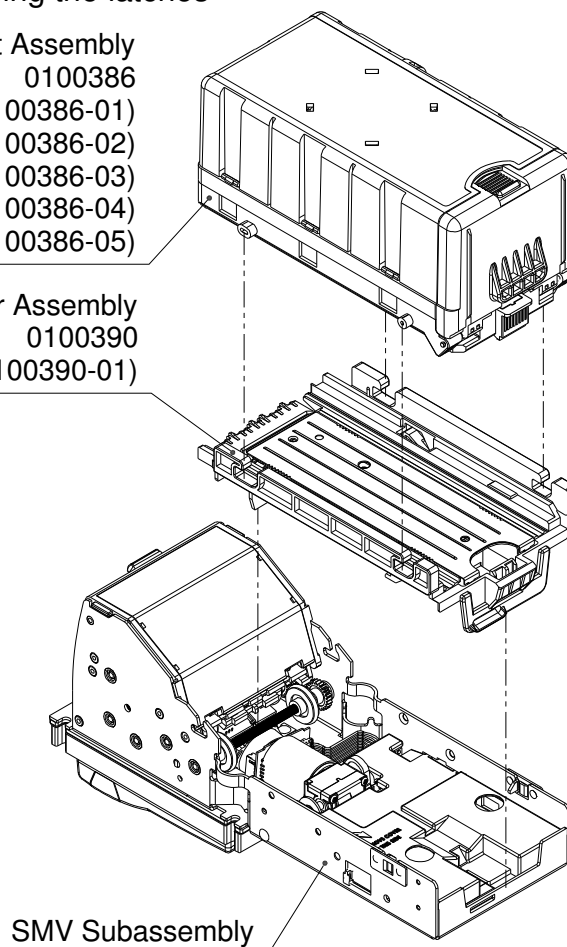
### Disassembly of SMV Bill Validator

#### Step 1

- Remove vault by releasing the latches
- Remove holder by releasing the latches

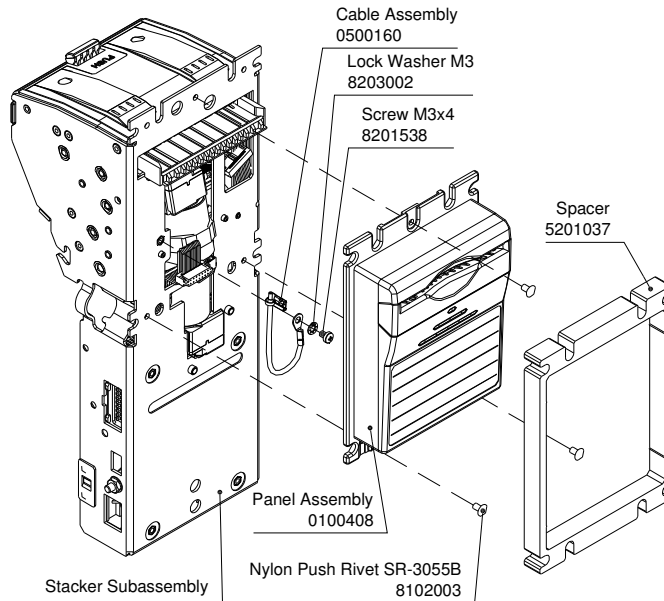
Vault Assembly  
0100386  
(0100386-01)  
(0100386-02)  
(0100386-03)  
(0100386-04)  
(0100386-05)

Holder Assembly  
0100390  
(0100390-01)



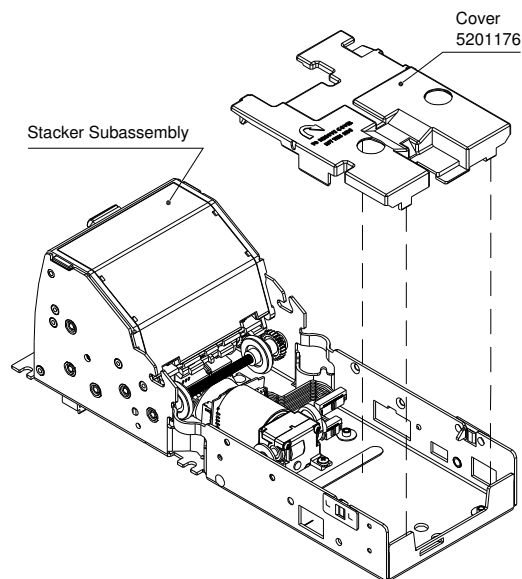
## Step 2

- Remove spacer
- Remove three nylon push rivet
- Disconnect cable assembly #0500160 from panel assembly
- Remove panel assembly
- Remove screw M3x4, lock washer M3 and cable assembly #0500160



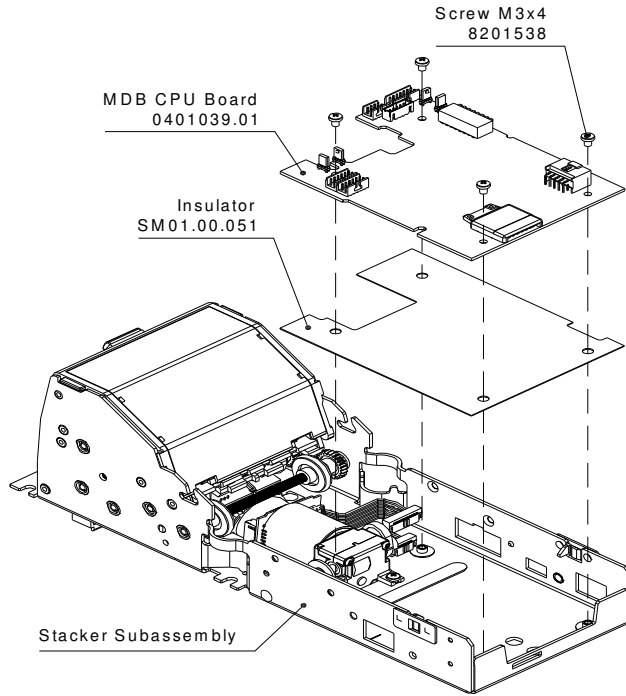
## Step 3

- Remove cover



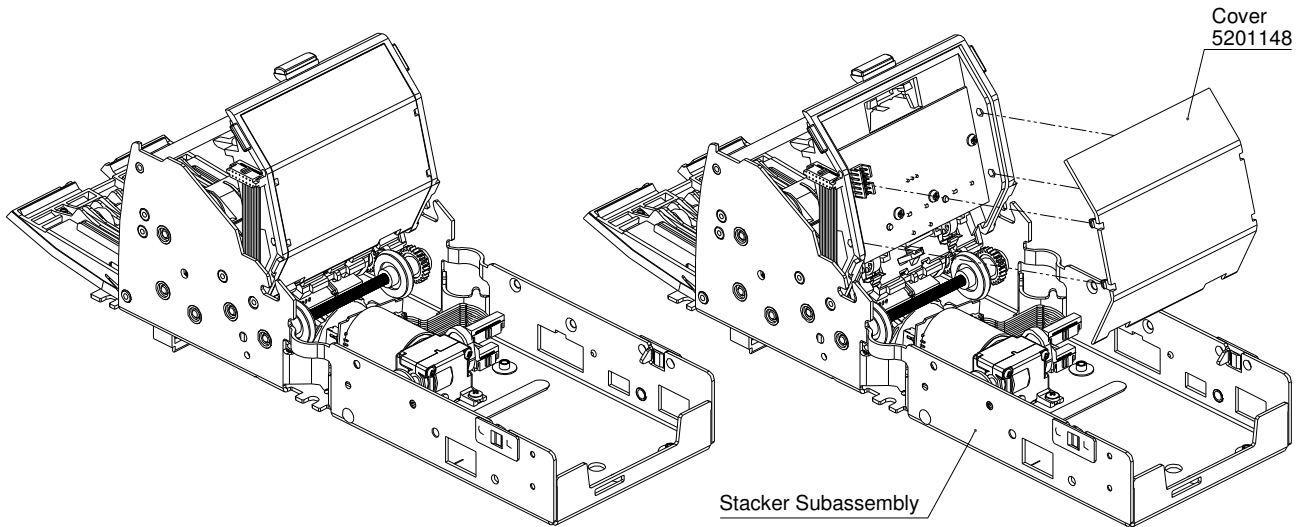
### Step 4

- Remove MDB CPU board and insulator



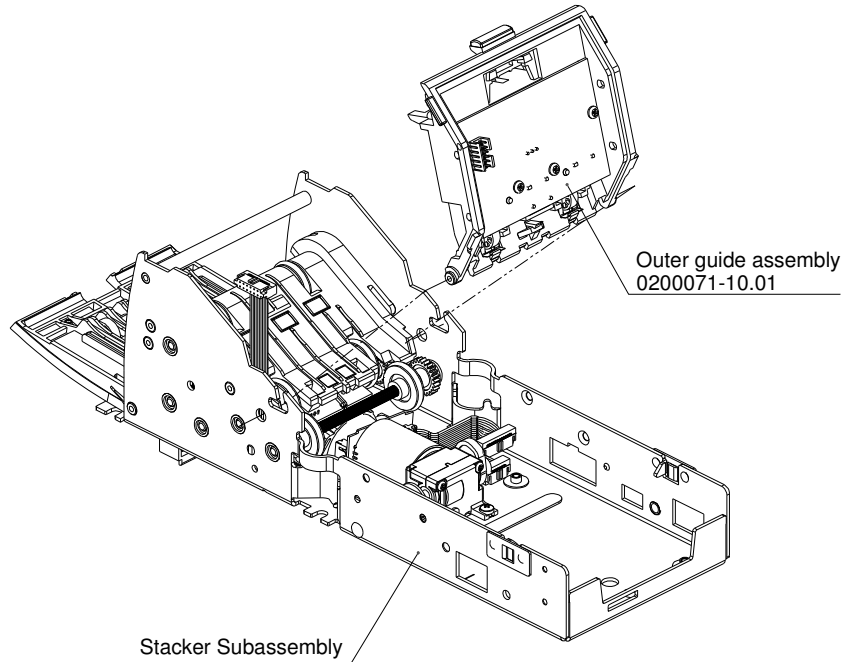
### Step 5

- Remove cover assembly #5201148 by releasing the latches



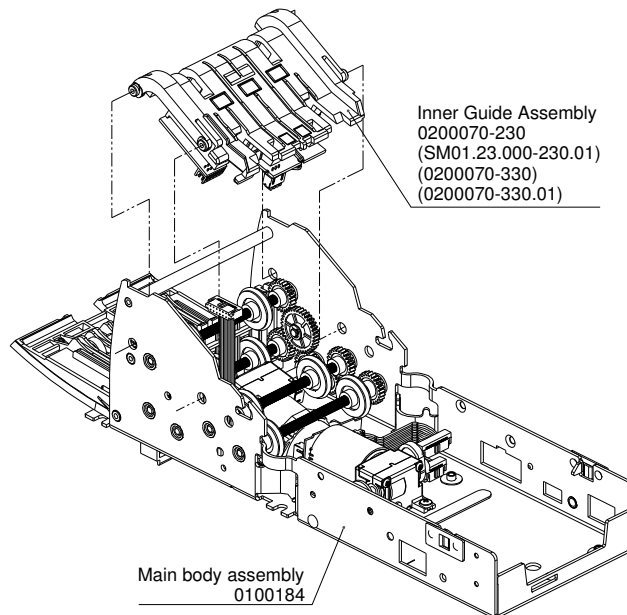
## Step 6

- Disconnect cable from Outer guide assembly
- Remove outer guide assembly #0200071-10 by releasing the latches



## Step 7

- Remove inner guide assembly by releasing the latches

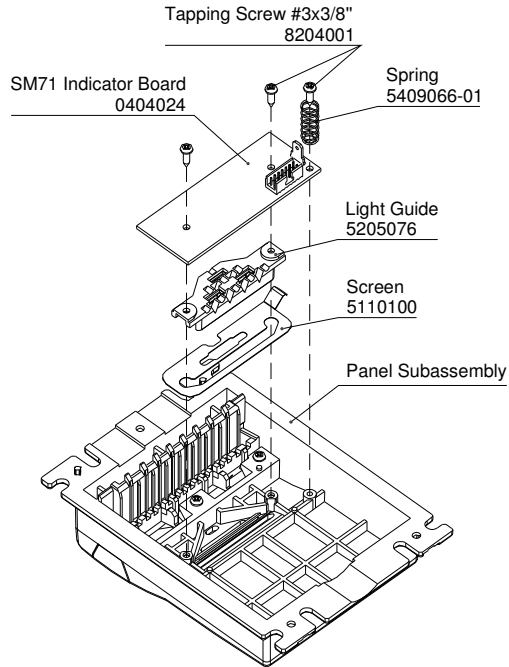




**Disassembly Face Panel Assembly (0100408)**

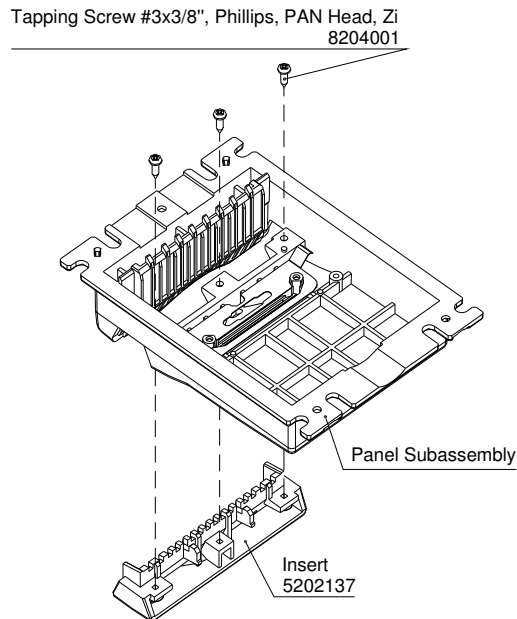
**Step 1**

- Remove three tapping screw #8204001, indicator board and spring
- Remove light guide and screen



**Step 2**

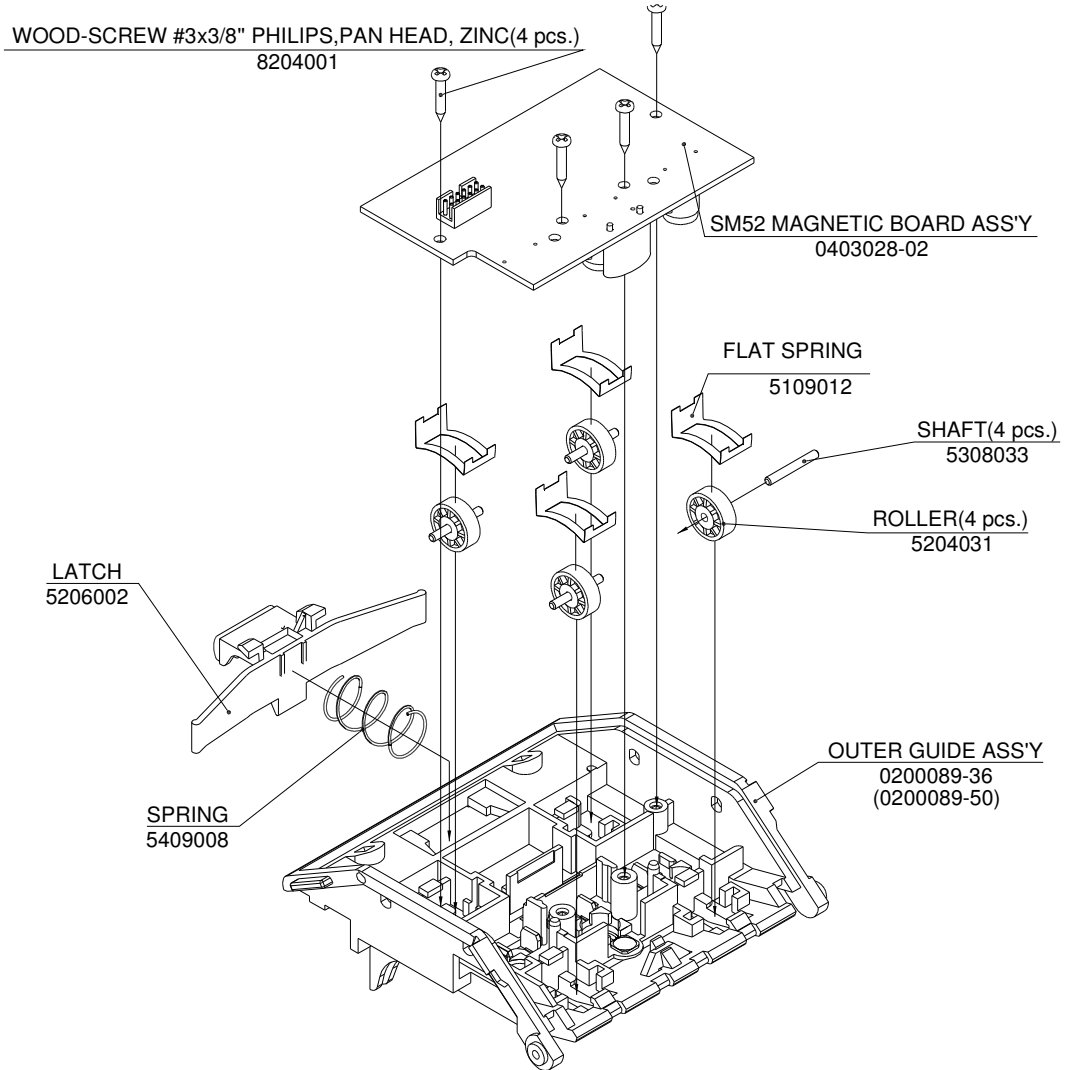
- Remove three tapping screw #8204001 and insert



**Disassembly Outer guide Assembly**

**Step 1**

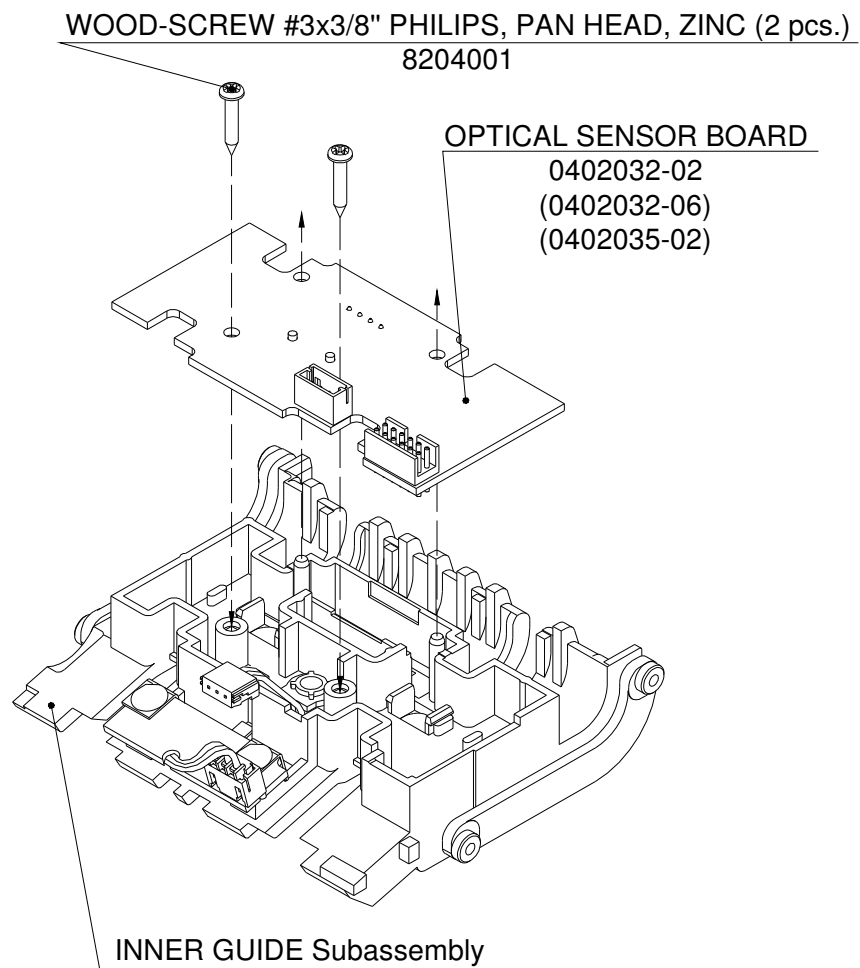
- Remove four wood-screw #8204001 and magnetic sensor board
- Remove latch and spring
- Remove four flat springs
- Remove four shafts with rollers



## Disassembly Inner guide Assembly

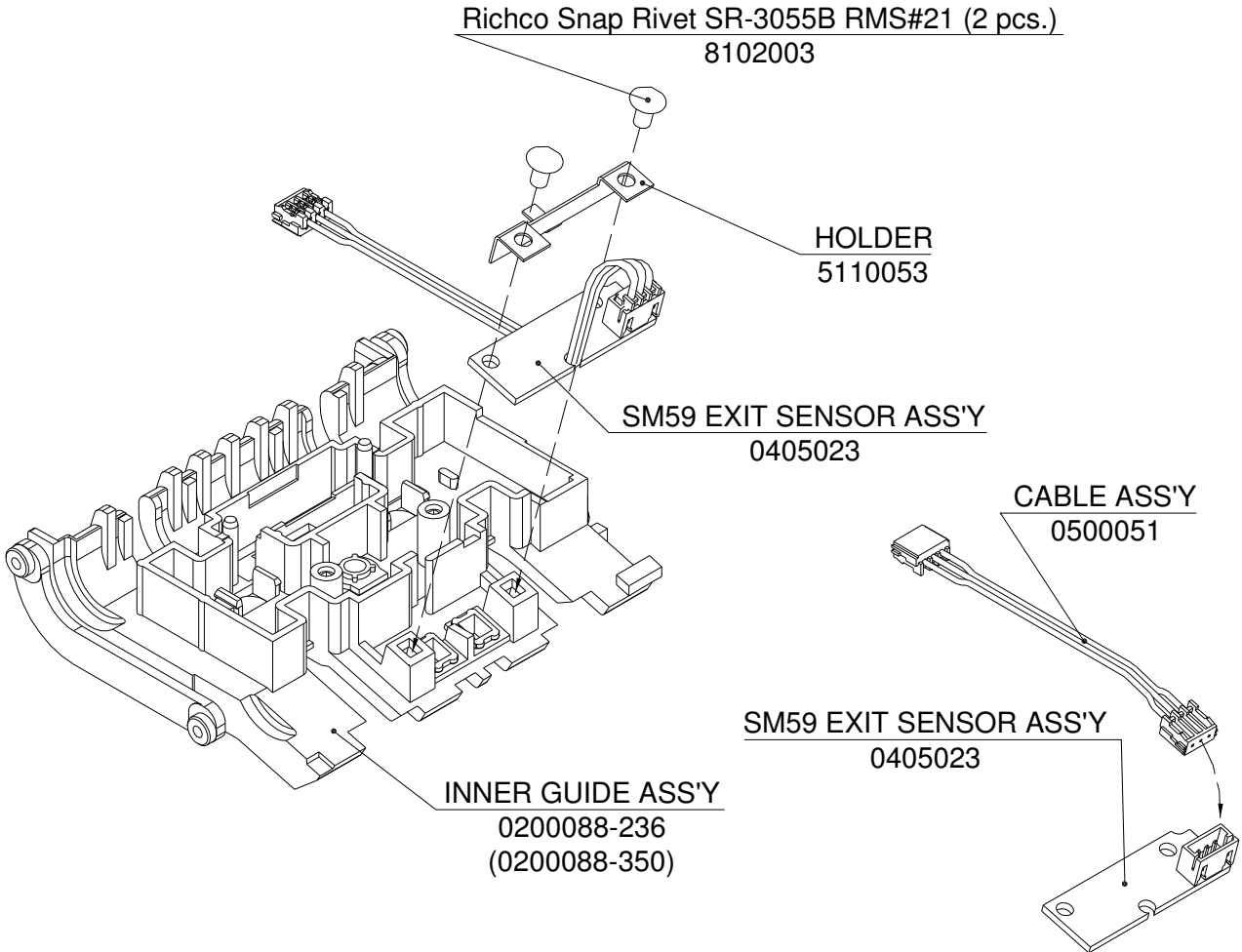
### Step 1

- Remove two wood screw #8204001
- Disconnect cable 0500051
- Remove optic sensor board



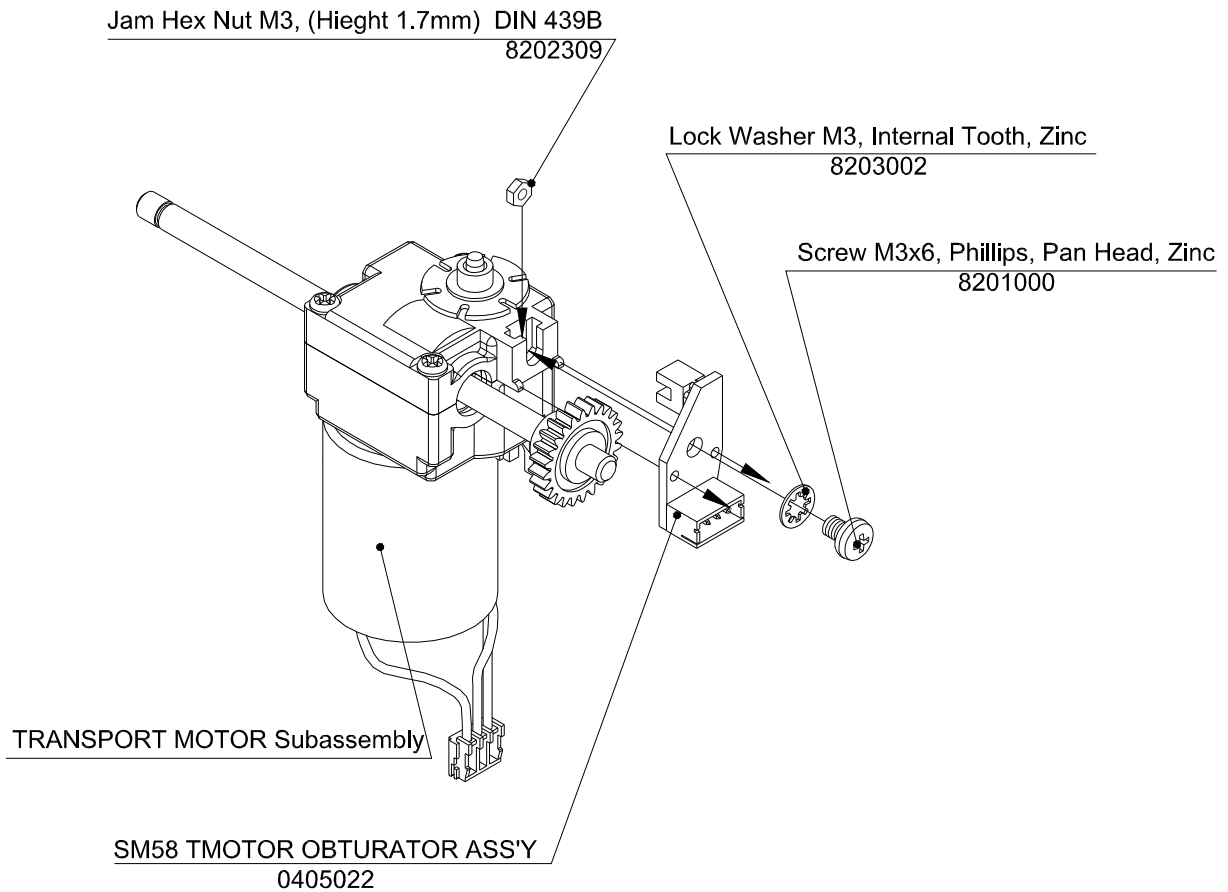
## Step 2

- Remove two snap rivets and holder
- Remove Exit Sensor board with cable
- Remove cable assembly



**Disassembly Transport Motor Assembly**

- Remove screw M3x6, Washer and Nut
- Remove transport motor obturator board

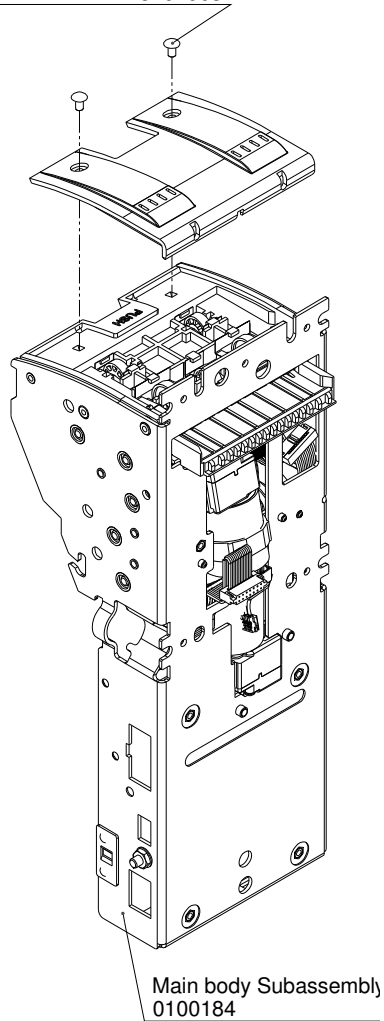


## Disassembly Main Body Assembly

### Step 1

- Remove two wood screw #8204001
- Remove cover

Nylon Push Rivet SR-3055B  
8102003

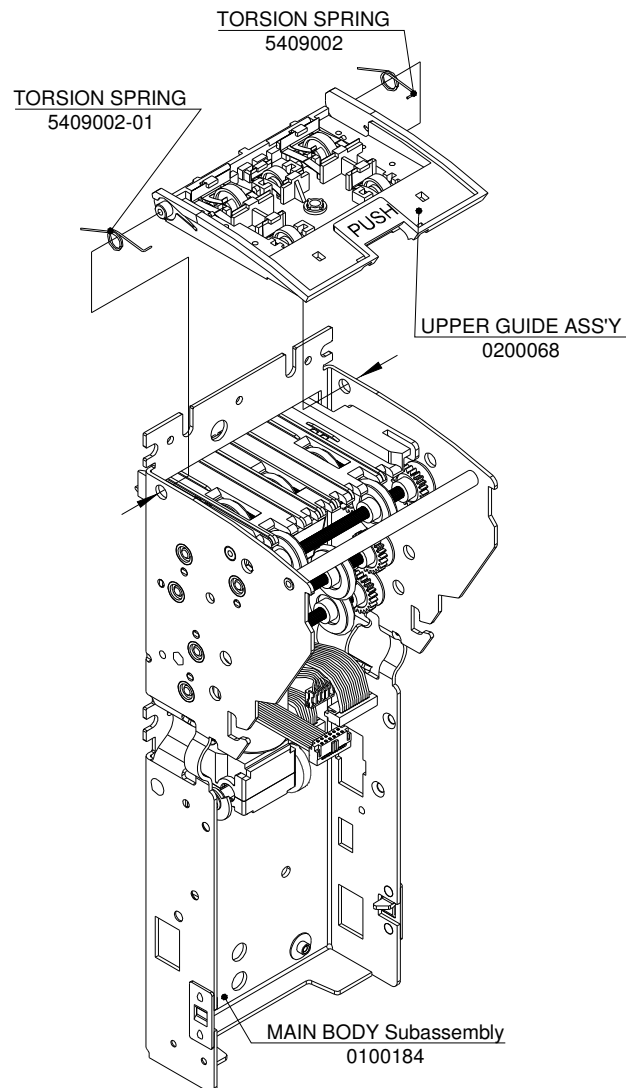


Main body Subassembly  
0100184

## Step 2

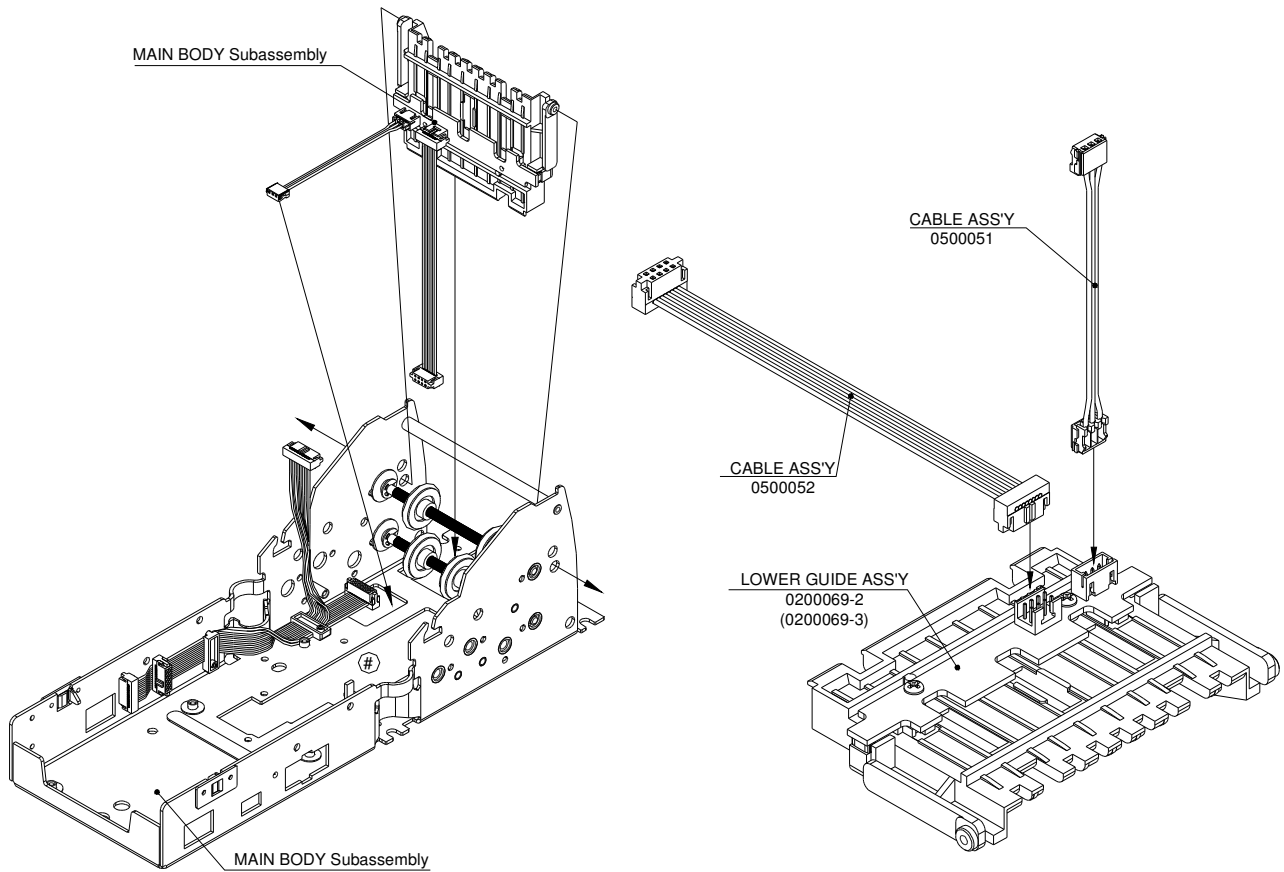
- Press on the upper guide near the guide axis
- Remove the upper guide with two springs

**Pay attention!** Restraint assembly and springs are not secured to the guide.



### Step 3

- Press on the lower guide near the guide axis
- Remove the lower guide
- Remove two cables

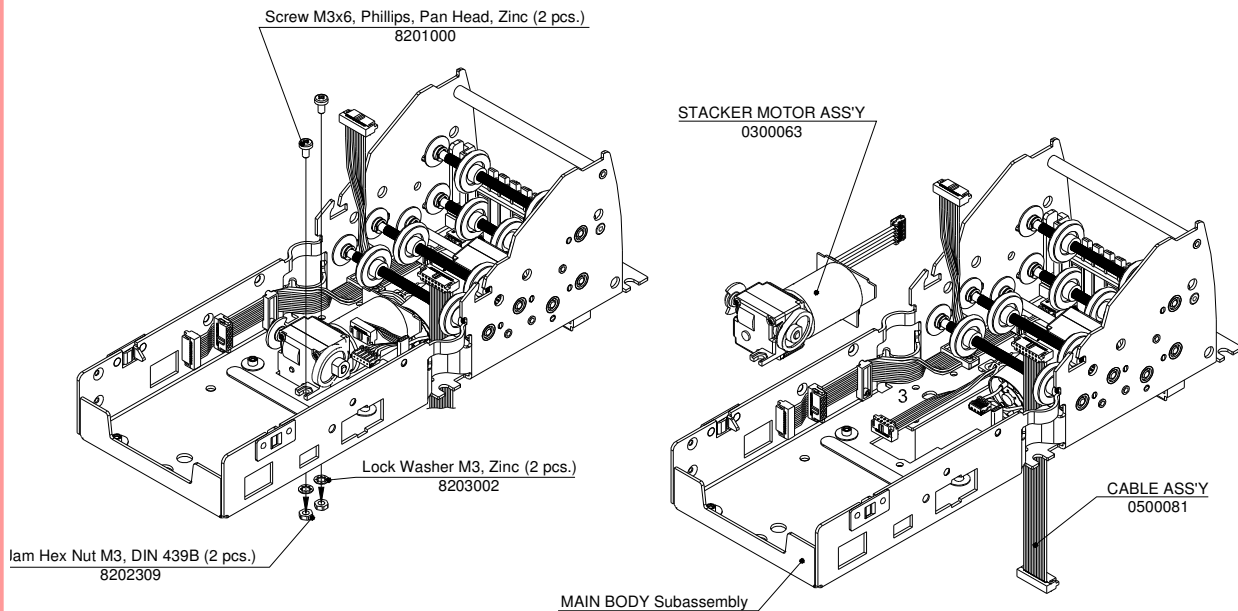




## Step 4

Remove stacker motor assembly, by following instructions bellow:

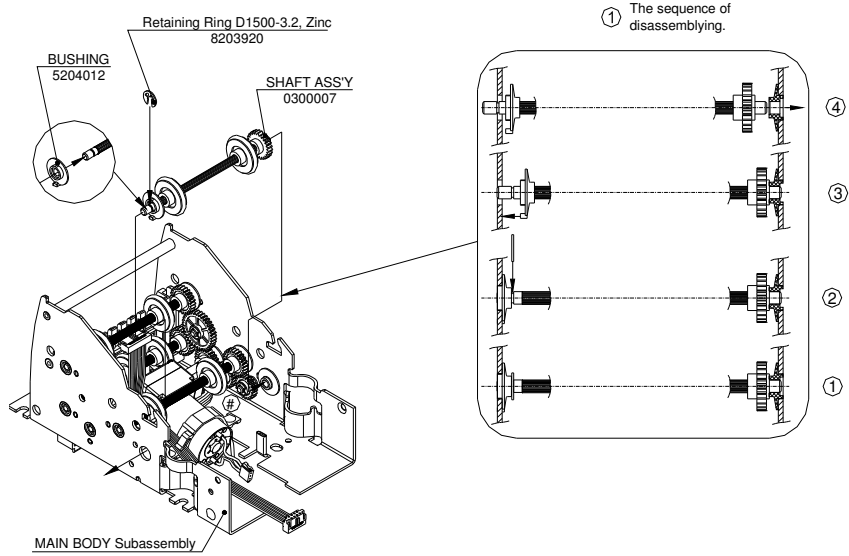
- Remove two screws M3x6, two M3 hex nuts and two lock washers M3
- Disconnect transport motor cable from stacker motor assembly
- Remove stacker motor assembly
- Remove cable 0500081
- Disconnect cable 0500053 from motor



### Step 5

Remove shaft assembly, by following instructions bellow:

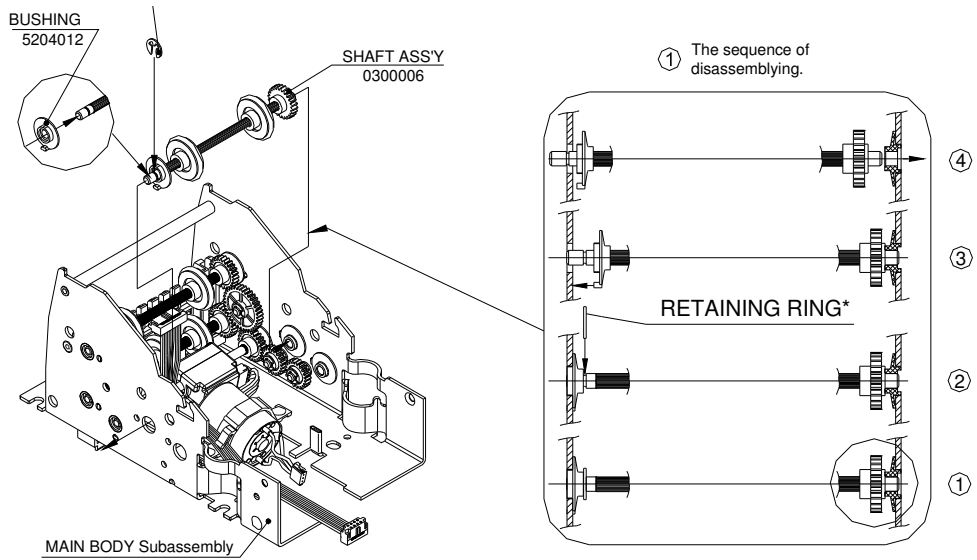
- Remove retaining ring
- Move bushing
- Remove shaft



### Step 6

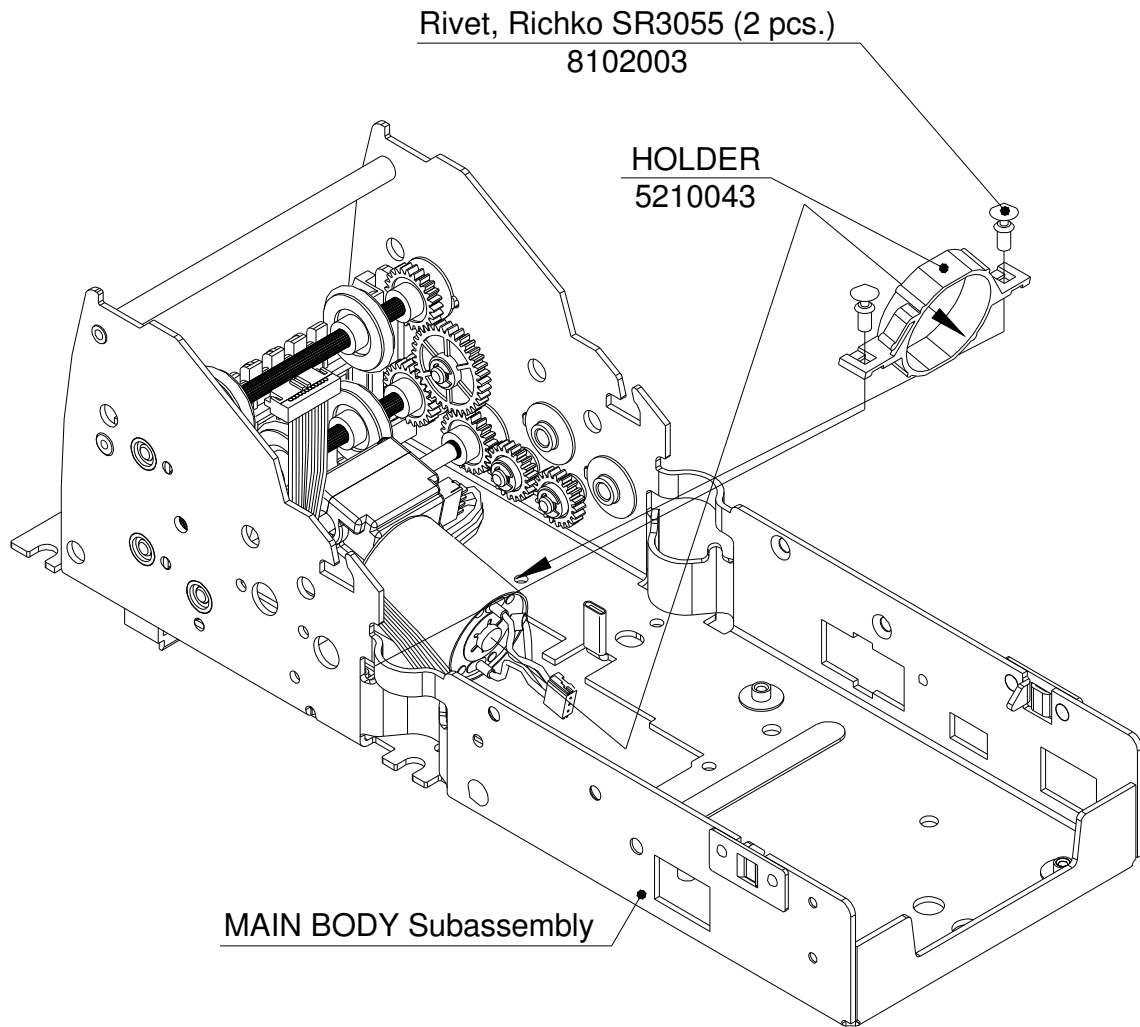
Remove shaft assembly, by following instructions bellow:

- Remove retaining ring
- Move bushing
- Remove shaft



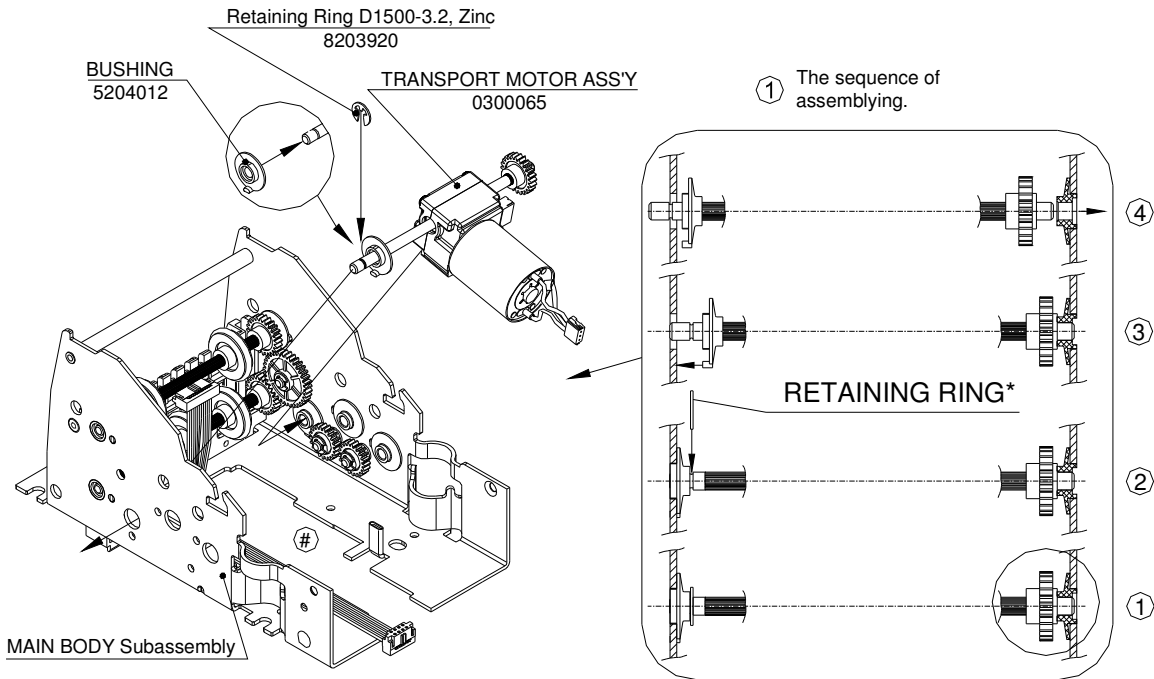
## Step 7

- Pull out 2 nylon push rivets
- Remove holder



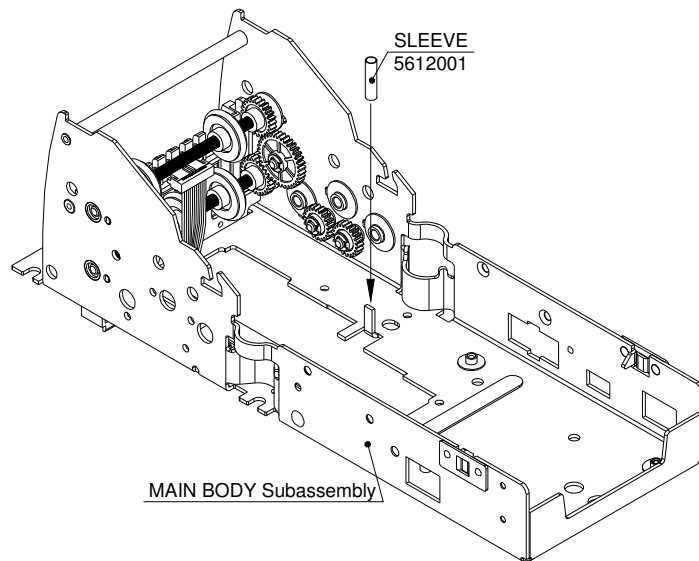
### Step 8

- Remove retaining ring
- Move bushing
- Remove transport motor assembly



### Step 9

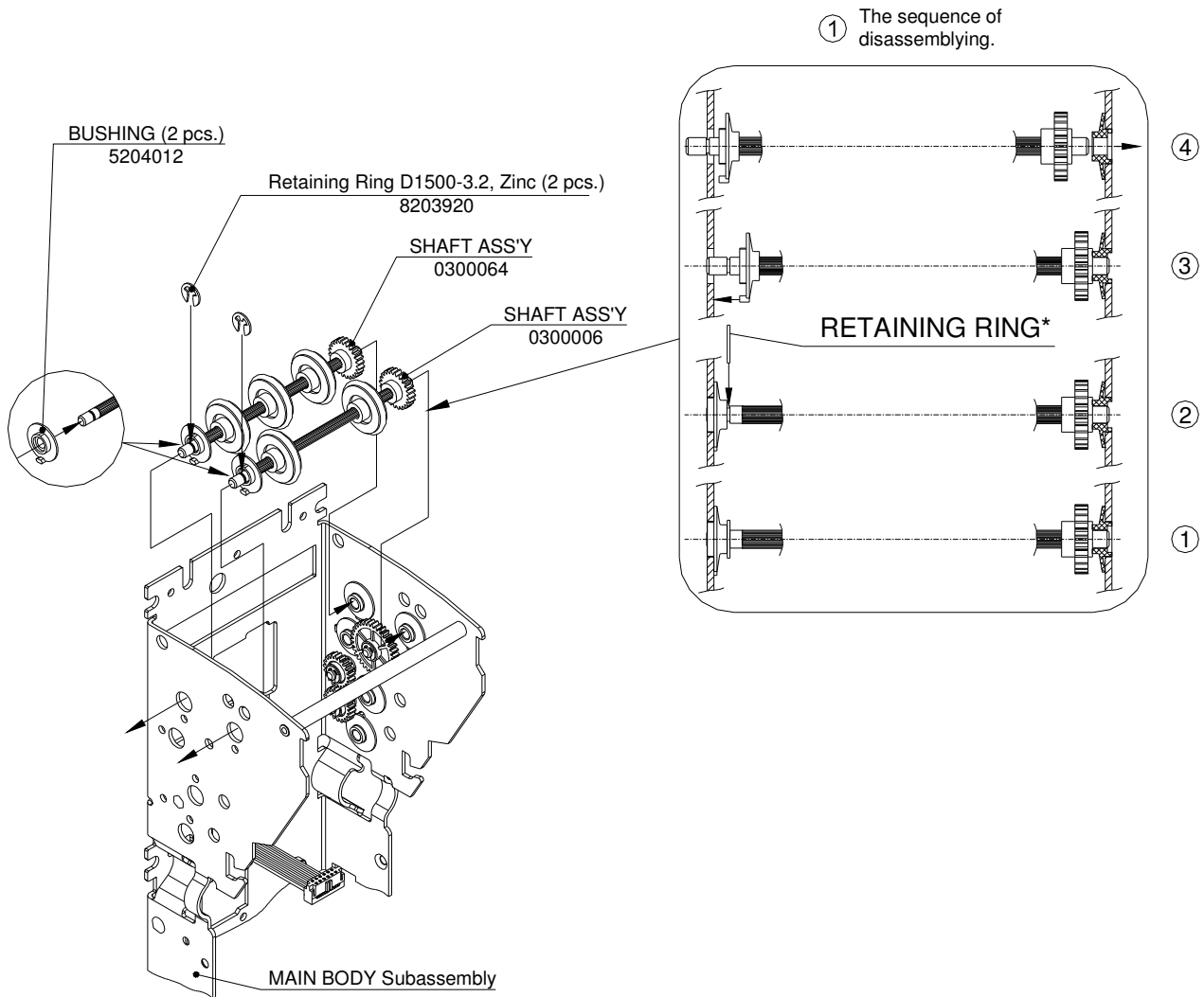
- Remove sleeve



## Step 10

Remove two shaft assemblies, by following instructions below:

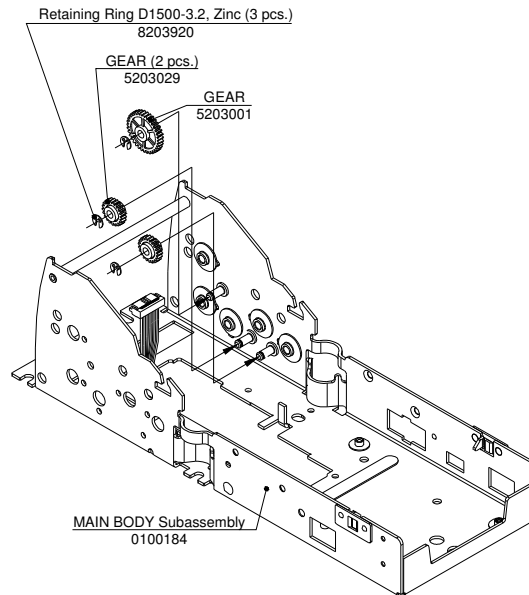
- Remove two retaining rings
- Move bushings
- Remove shafts



## Step 11

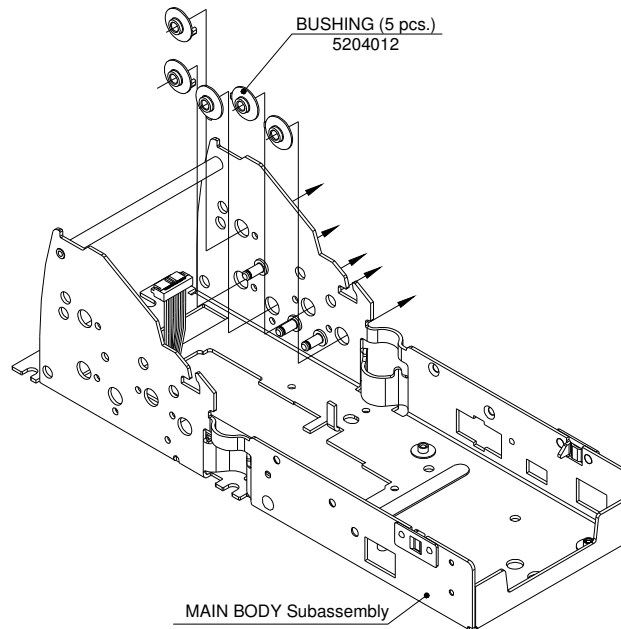
Remove three gears, by following instructions bellow:

- Remove three retaining rings
- Remove gears



## Step 12

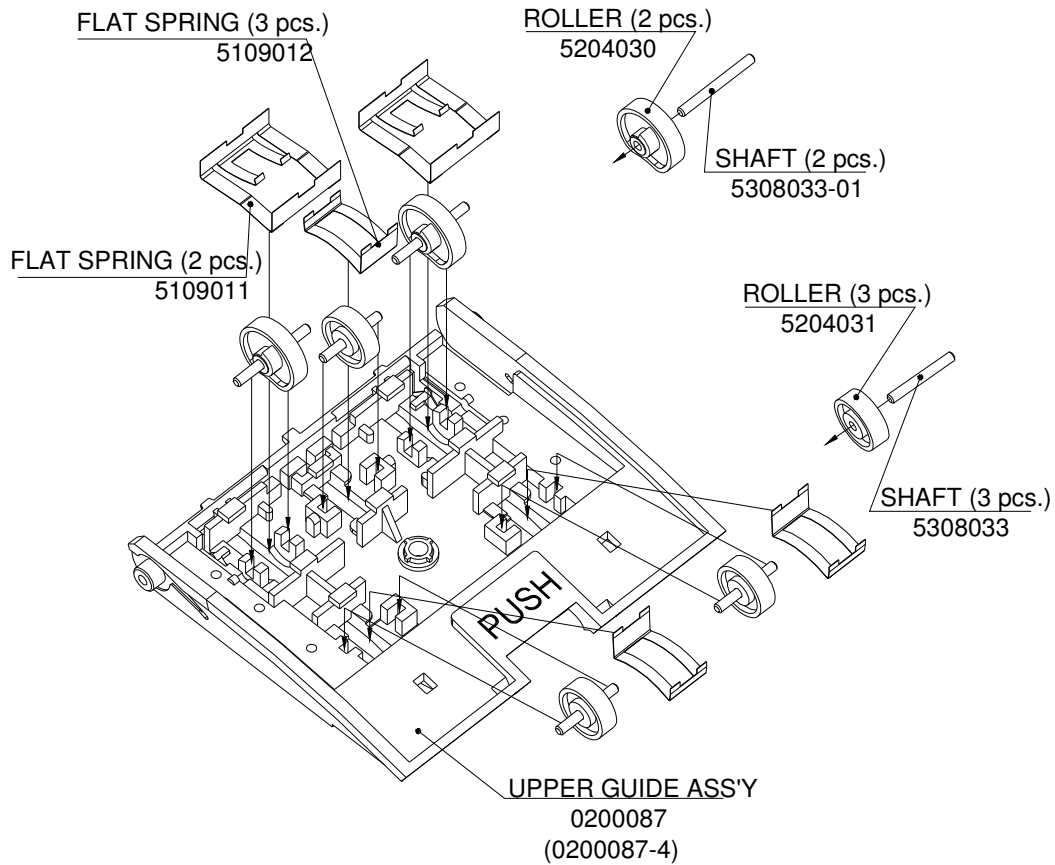
- Remove five bushings



**Disassembly of Upper Guide #020068**

**Step 1**

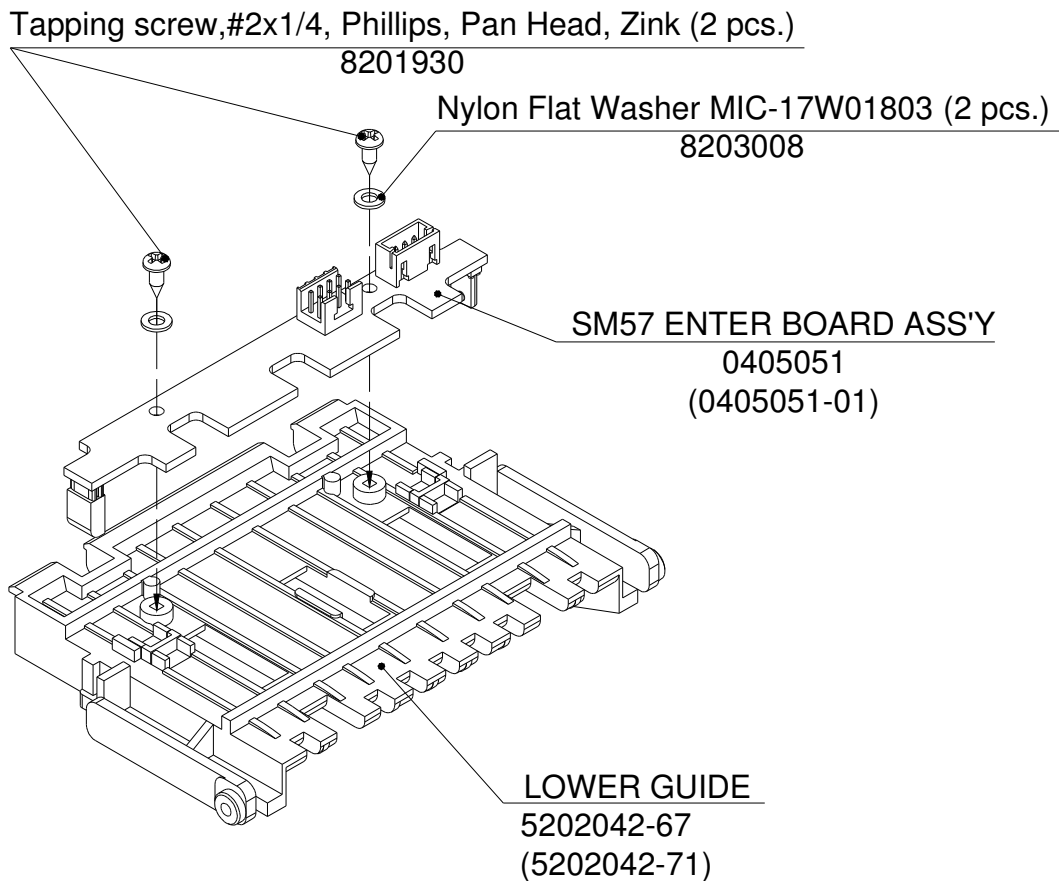
- Remove five flat springs
- Remove five rollers with shafts



**Disassembly of Lower Guide #0200069**

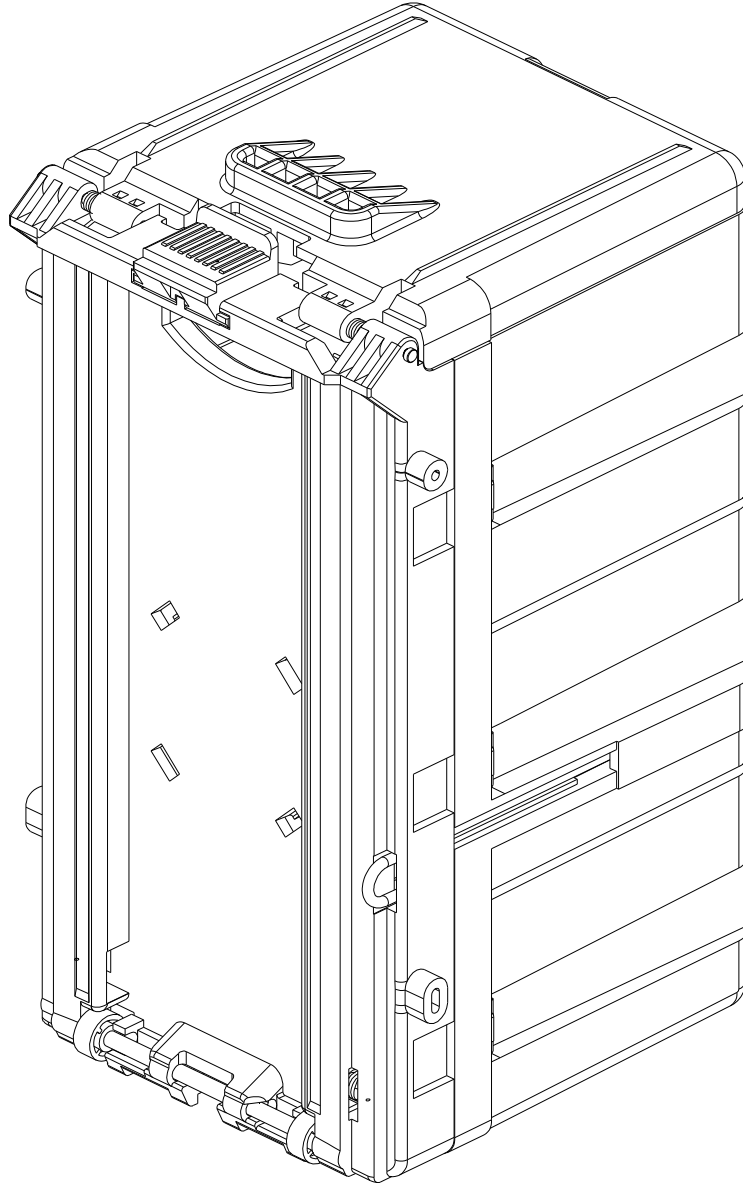
**Step 1**

- Remove two screw #8201930
- Remove Enter Board

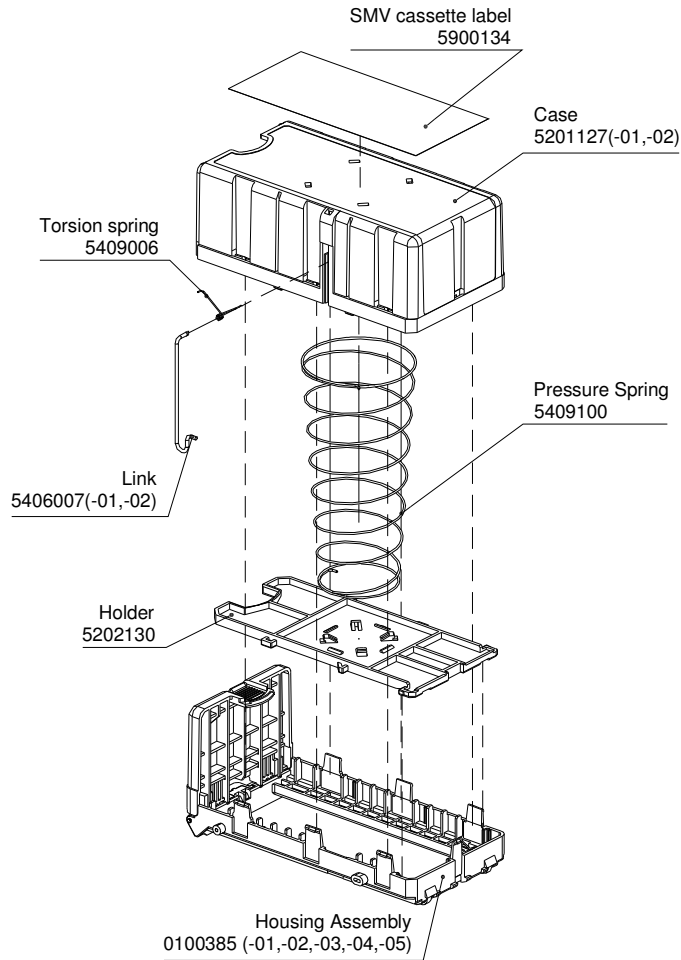




**VAULT**

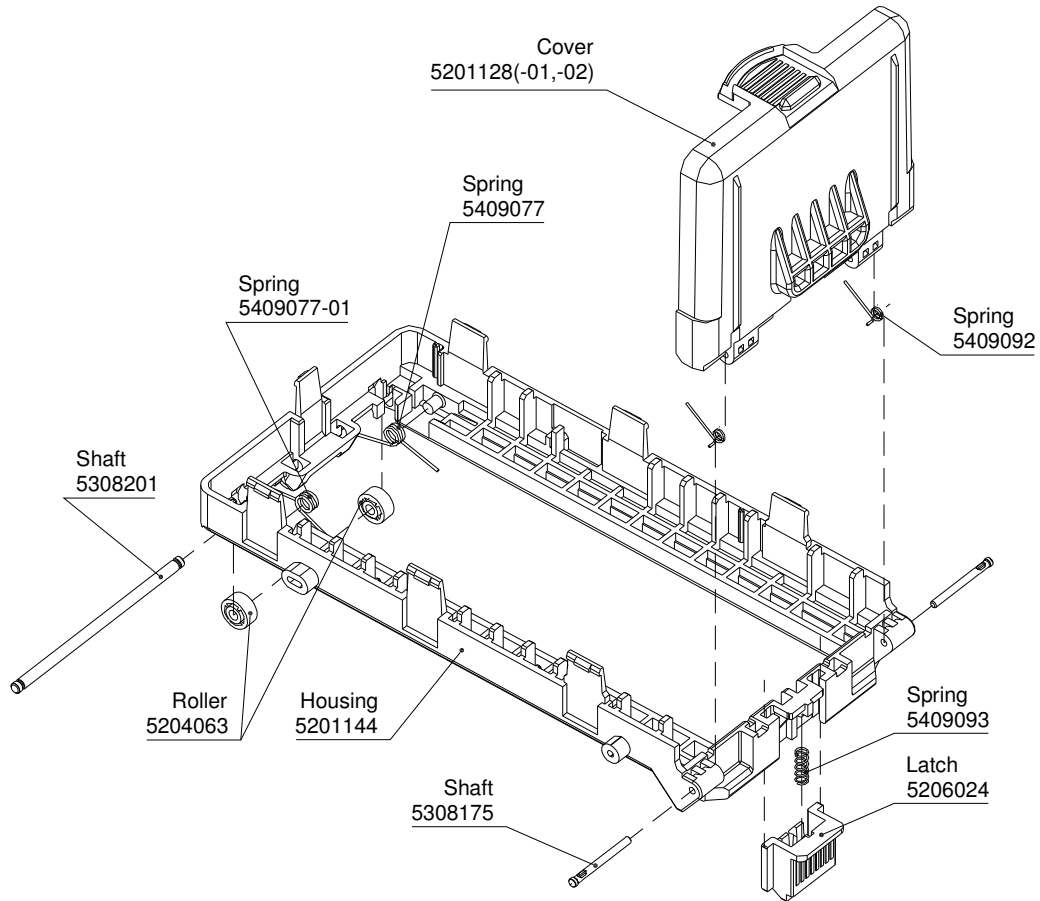


**Exploded view of Vault Assembly (0100386, 0100386-01, 02, 03).**



Part ID #	Description	0100399	0100399-01	0100399-02	0100399-03
0100385	Housing	1			
0100385-01	Housing		1		
0100385-02	Housing			1	
0100385-03	Housing				1
5409006	Torsion spring	1	1	1	1
5202130	Holder	1	1	1	1
5409100	Pressure Spring	1	1	1	1
5406007	Link	1	1		
5406007-01	Link			1	1
5201127	Case	1	1		
5201127-01	Case			1	1
5900134	SMV cassette label	1			1

*Exploded view of Housing (0100385).*

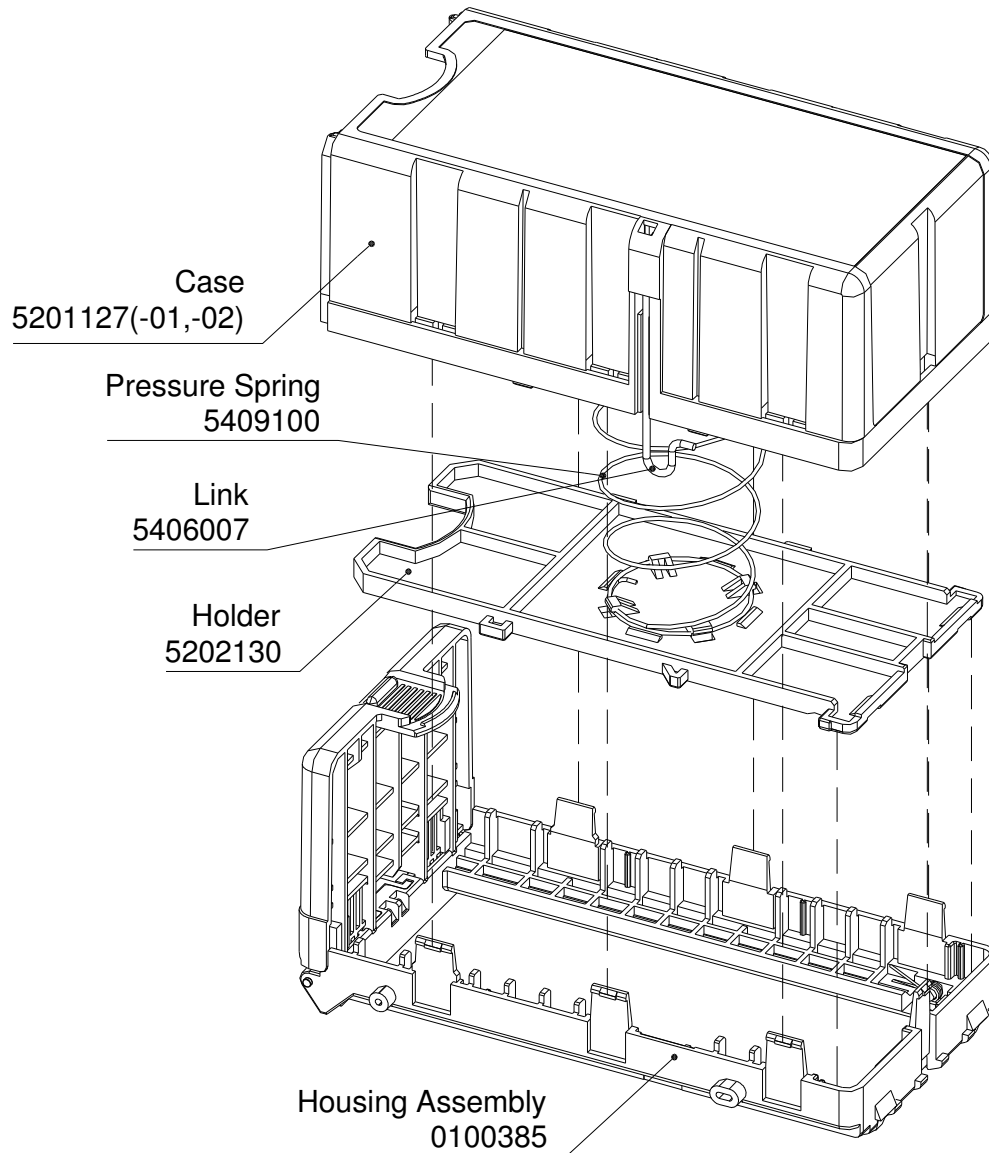


Part ID #	Description	0100385			
		0100385	0100385-01	0100385-02	0100385-03
5409092	Spring	2	2	2	2
5308175	Shaft	2	2	2	2
5409093	Spring	1	1	1	1
5206024	Latch	1	1	1	1
5201128	Cover	1	1		
5201128-01	Cover			1	1
5201144	Housing	1		1	
5201144-01	Housing		1		1
5409077-01	Spring	1	1	1	1
5409077	Spring	1	1	1	1
5204063	Roller	2	2	2	2
5308201	Shaft	1	1	1	1

## Disassembly of Vault Assembly (0100386, 0100386-01,02,03)

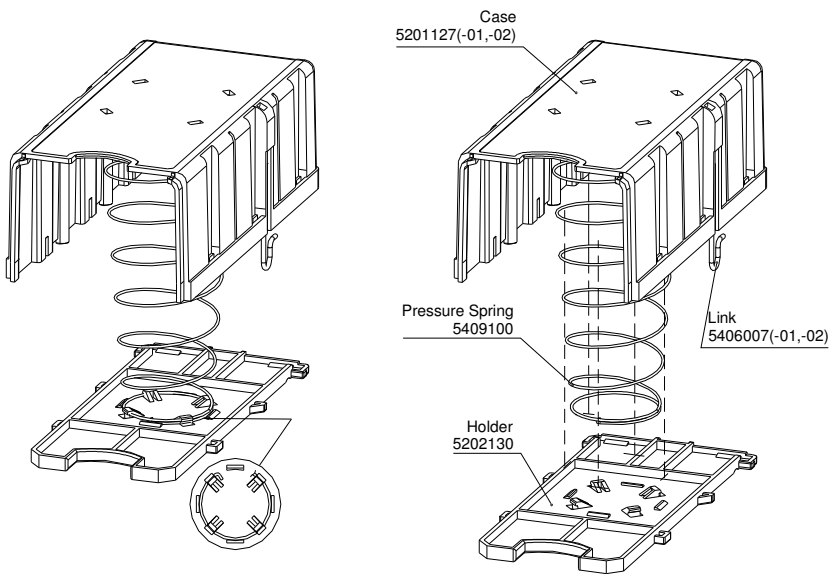
### Step 1

- Remove case with holder and pressure spring by releasing the latches



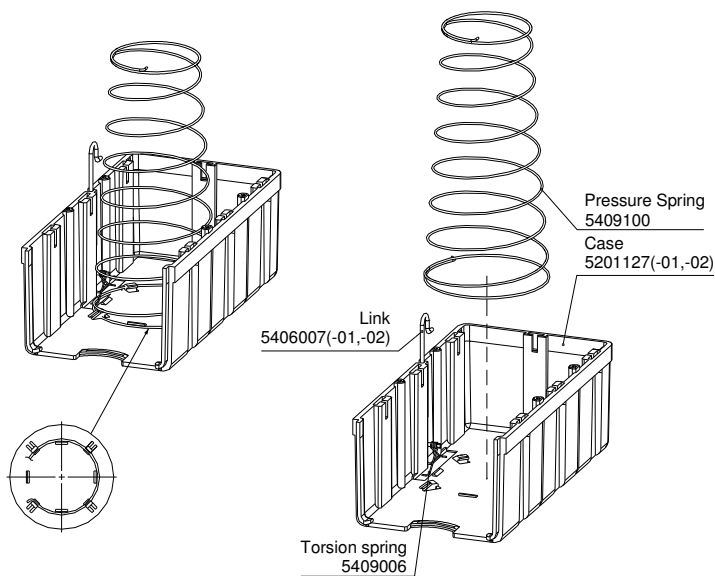
## Step 2

- Remove holder



## Step 3

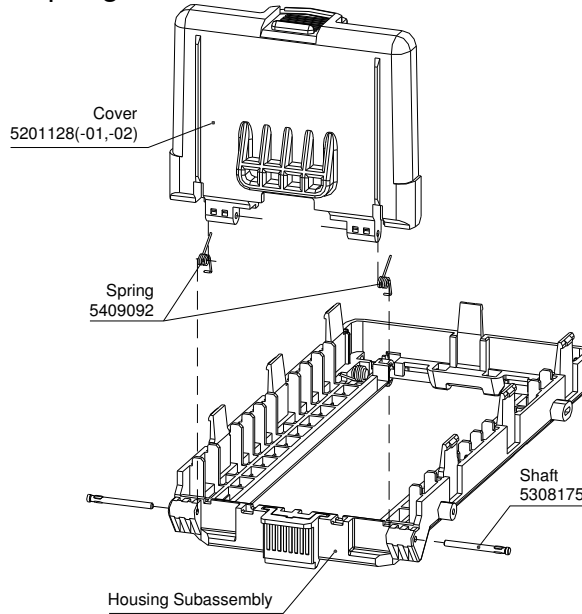
- Remove pressure spring



**Disassembly of Housing (0100385)**

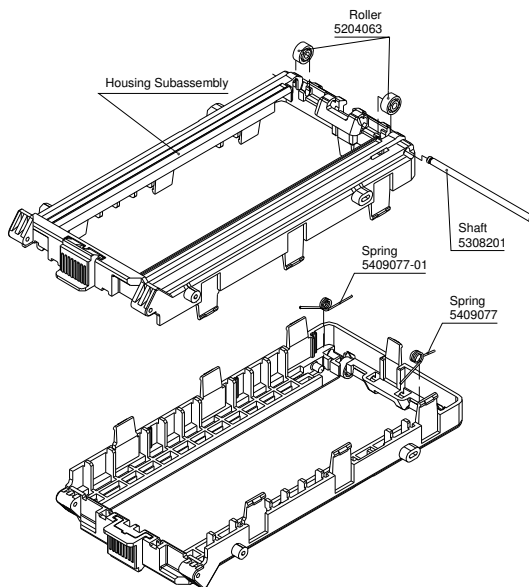
**Step 1**

- Pull out two shafts
- Remove cover and two springs



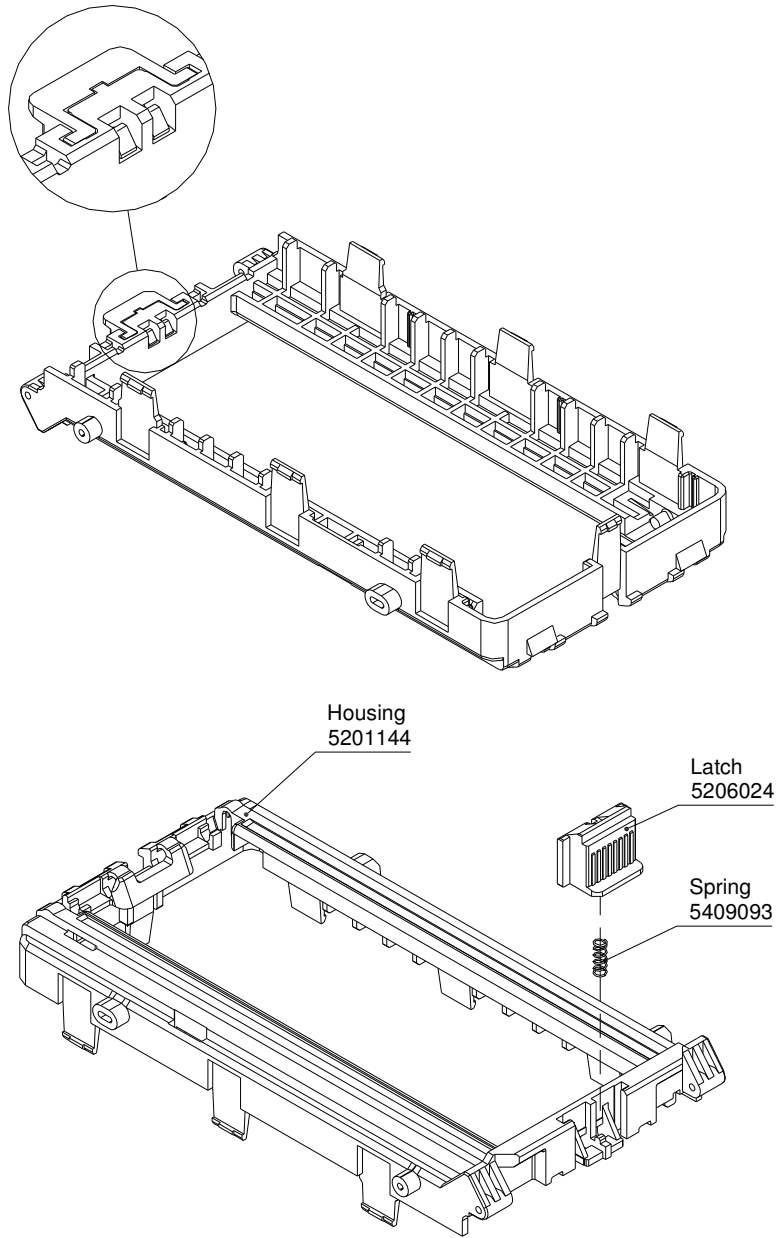
**Step 2**

- Pull out shaft
- Remove two spring and two roller

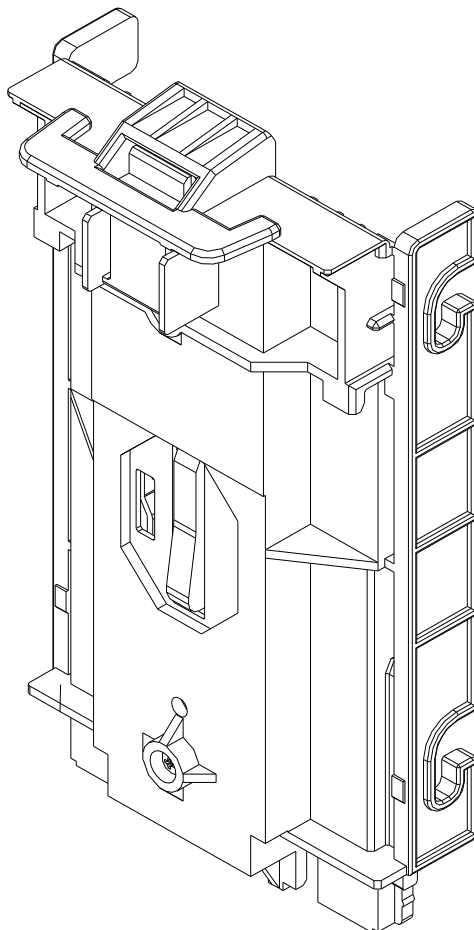


### Step 3

- Remove latch by releasing the latches

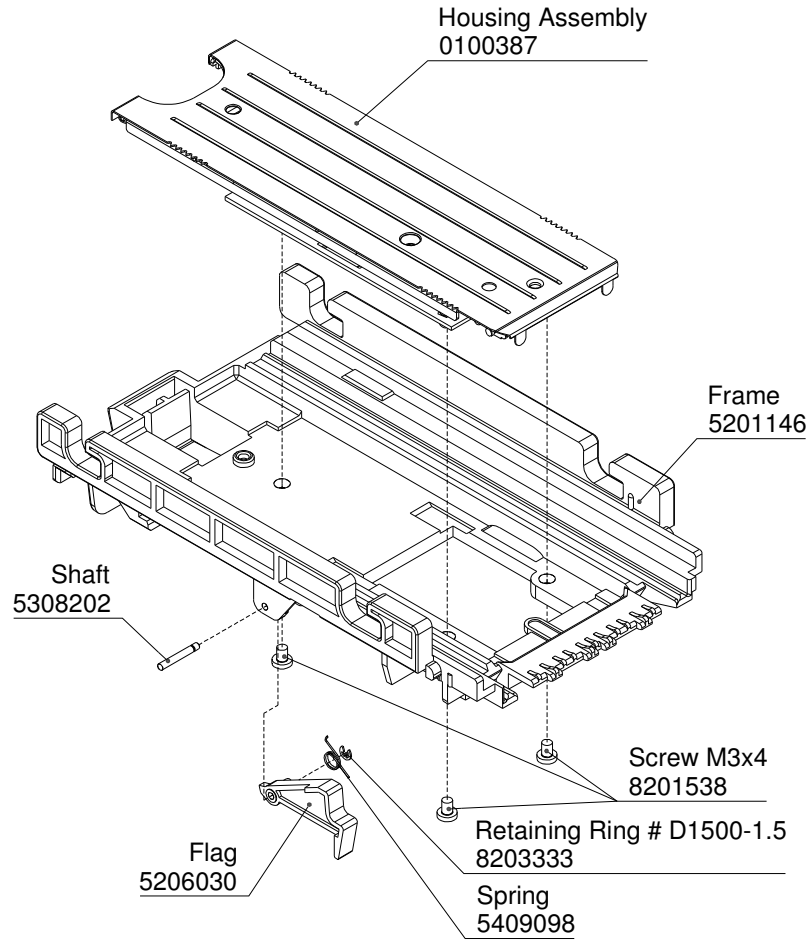


# HOLDER





*Exploded view of Vault Assembly (0100390).*

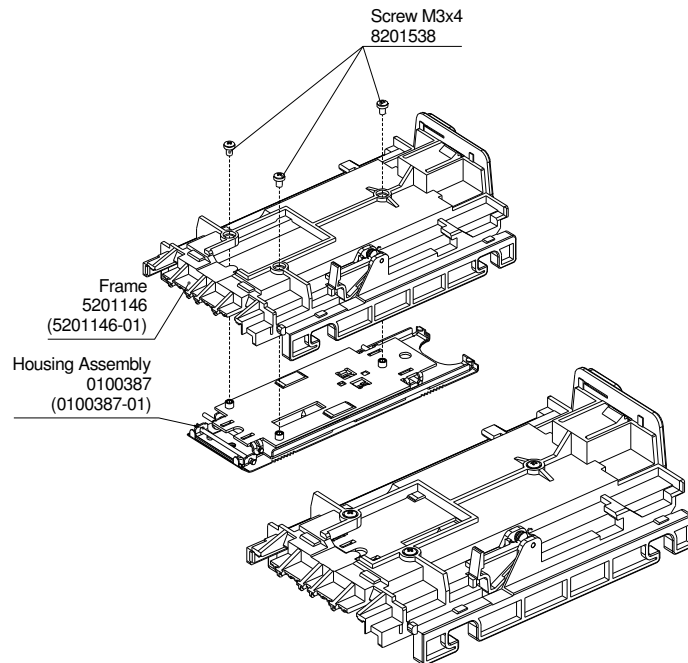


Part ID #	Description	0100390	0100390-01
0100387	Housing Assembly	1	
0100387-01	Housing Assembly		1
5201146	Frame	1	
5201146-01	Frame		1
5206030	Flag	1	1
5409098	Spring	1	1
5308202	Shaft	1	1
8201538	Screw M3x4, Phillips, Pan Head, ZI	3	3
8203333	Retaining Ring # D1500-1.5	1	1

## Disassembly of Holder (0100390)

### Step 1

- Remove three screws M3x4
- Remove housing assembly



## Step 2

- Remove shaft
- Remove flag and spring

