

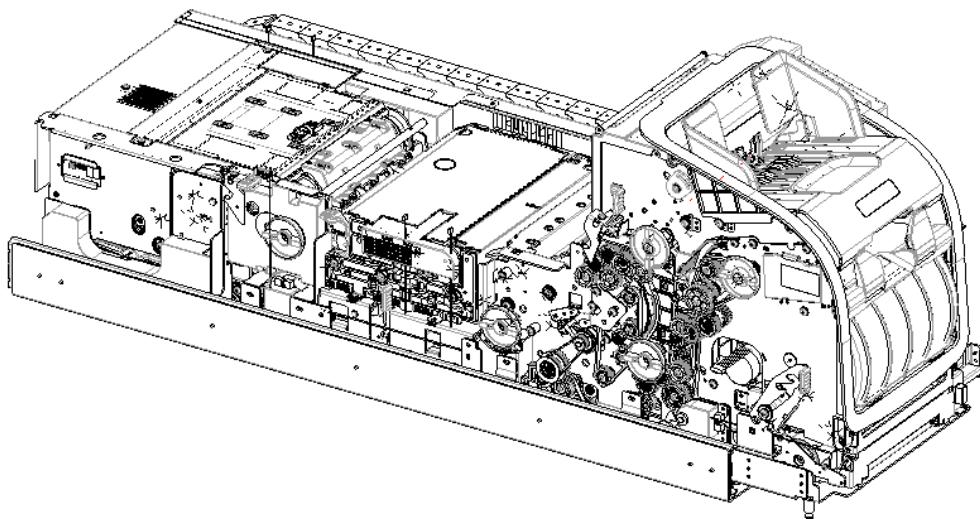
# Bill Recycle Module

## Replacement Procedure

### Module Replacement

#### Customer Service Module (CSM) Replacement

- ▶ Upper Assembly Drawing of BRM30



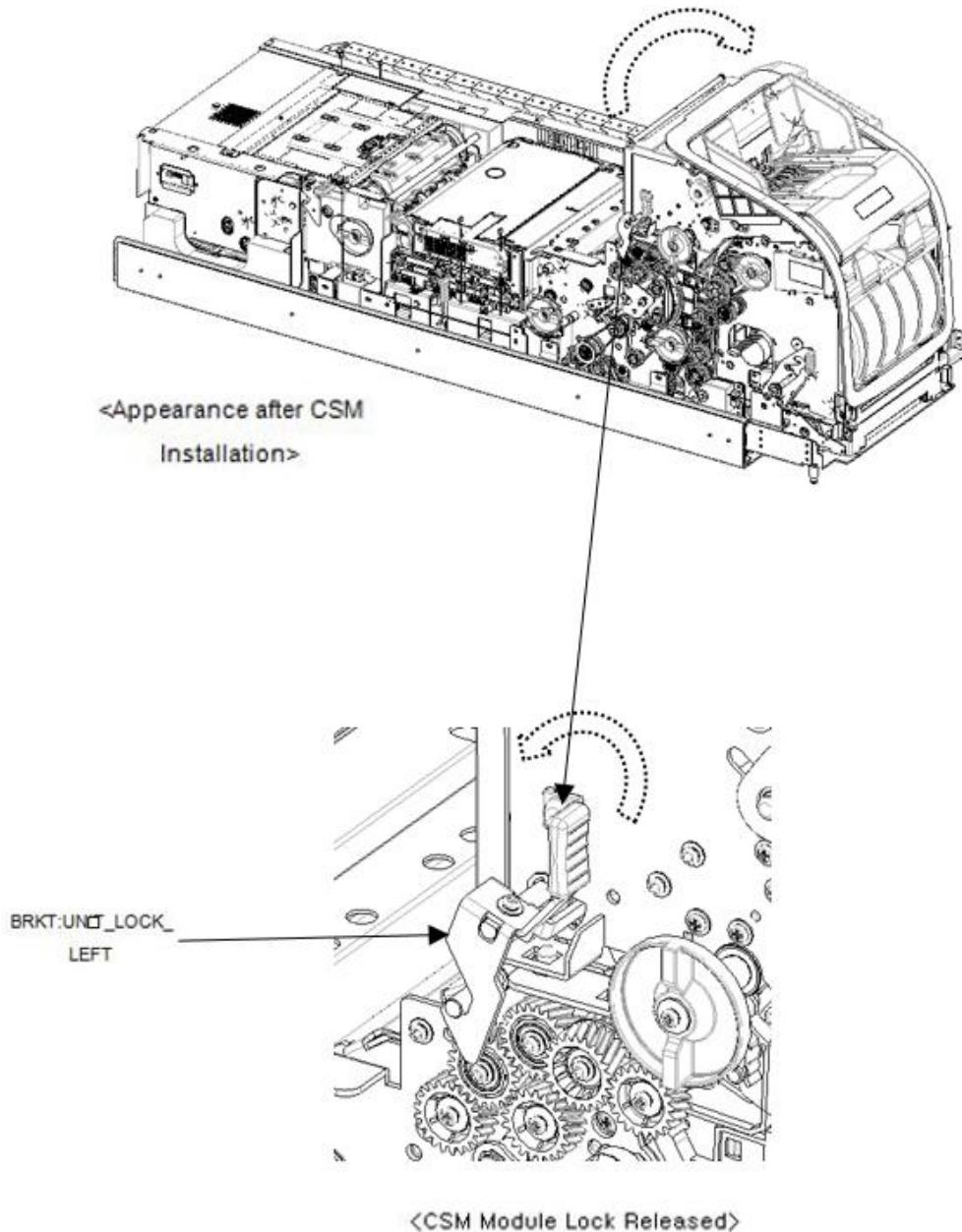
**<Precautions!!>** Please be sure to put the cover on the front section when opening the upper front section for maintenance.



## Bill Recycle Module

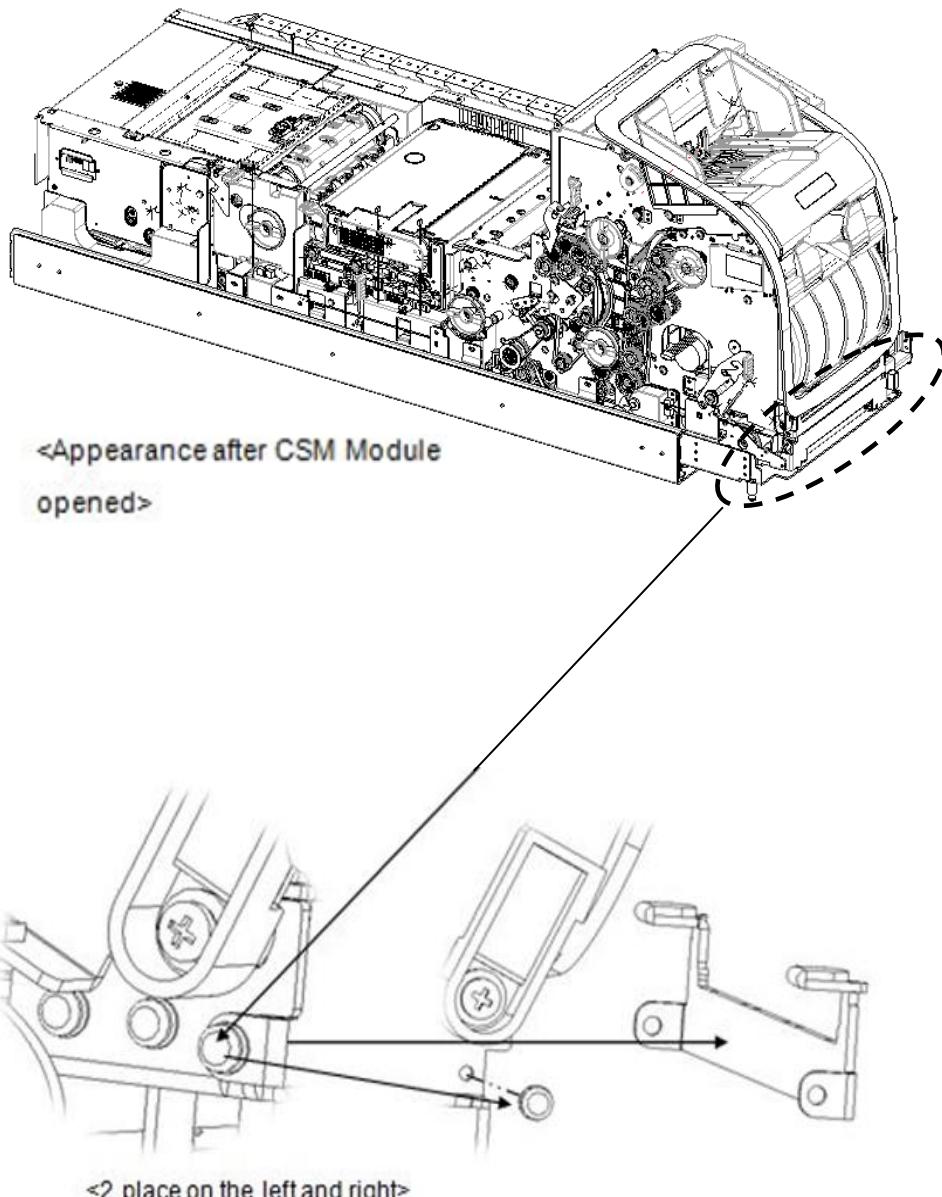
### ► Disassembling CSM Module (7430009106) and removing cable

1. Press the CSM Module Lock in the direction of arrow.
2. Open the Module Lock and lift up the handle to place it in the center groove of PL Lock.



## Bill Recycle Module

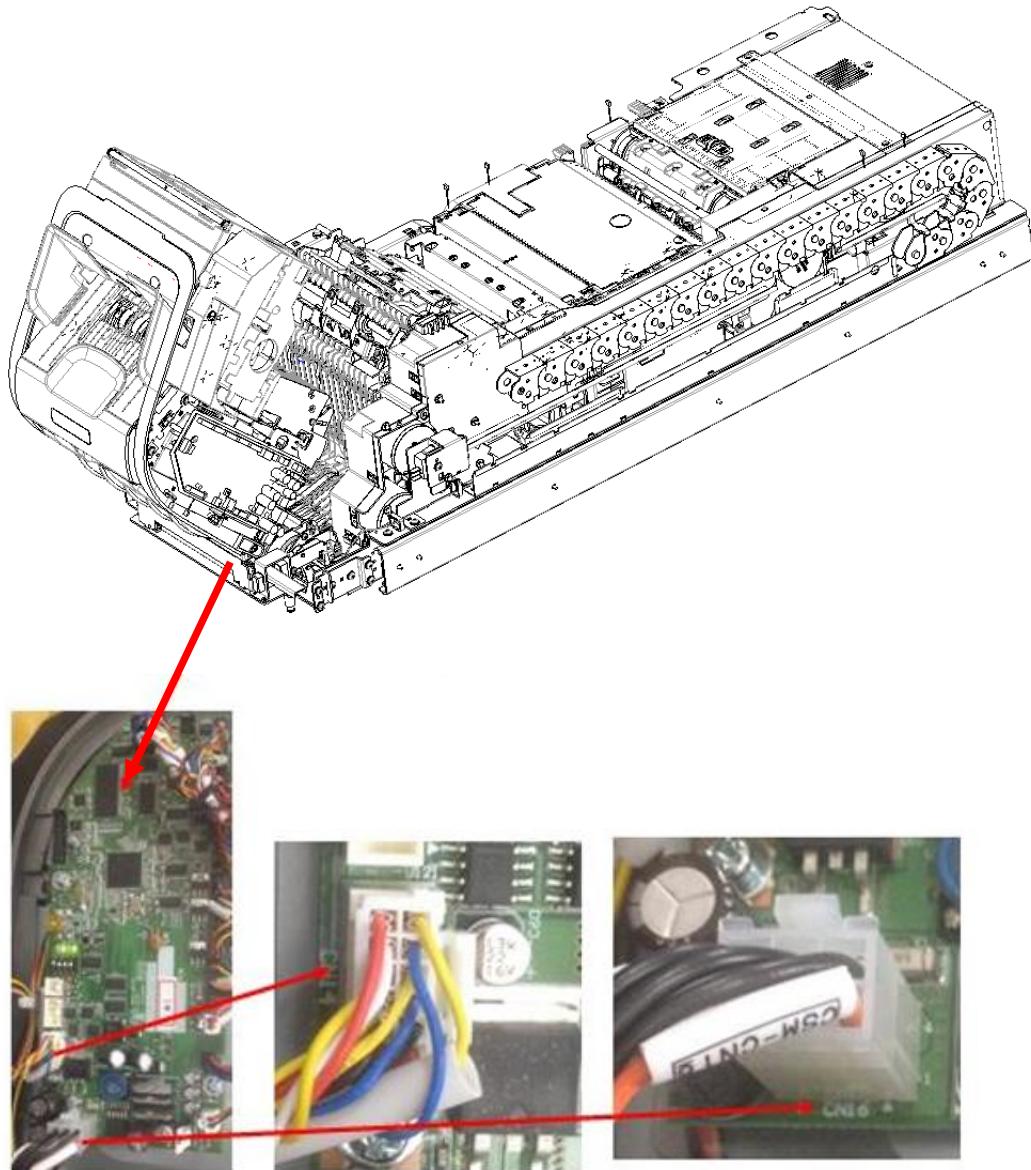
3. Unfasten the screws (2 places) on the turning hinge section of CSM and remove the bracket.



## Bill Recycle Module

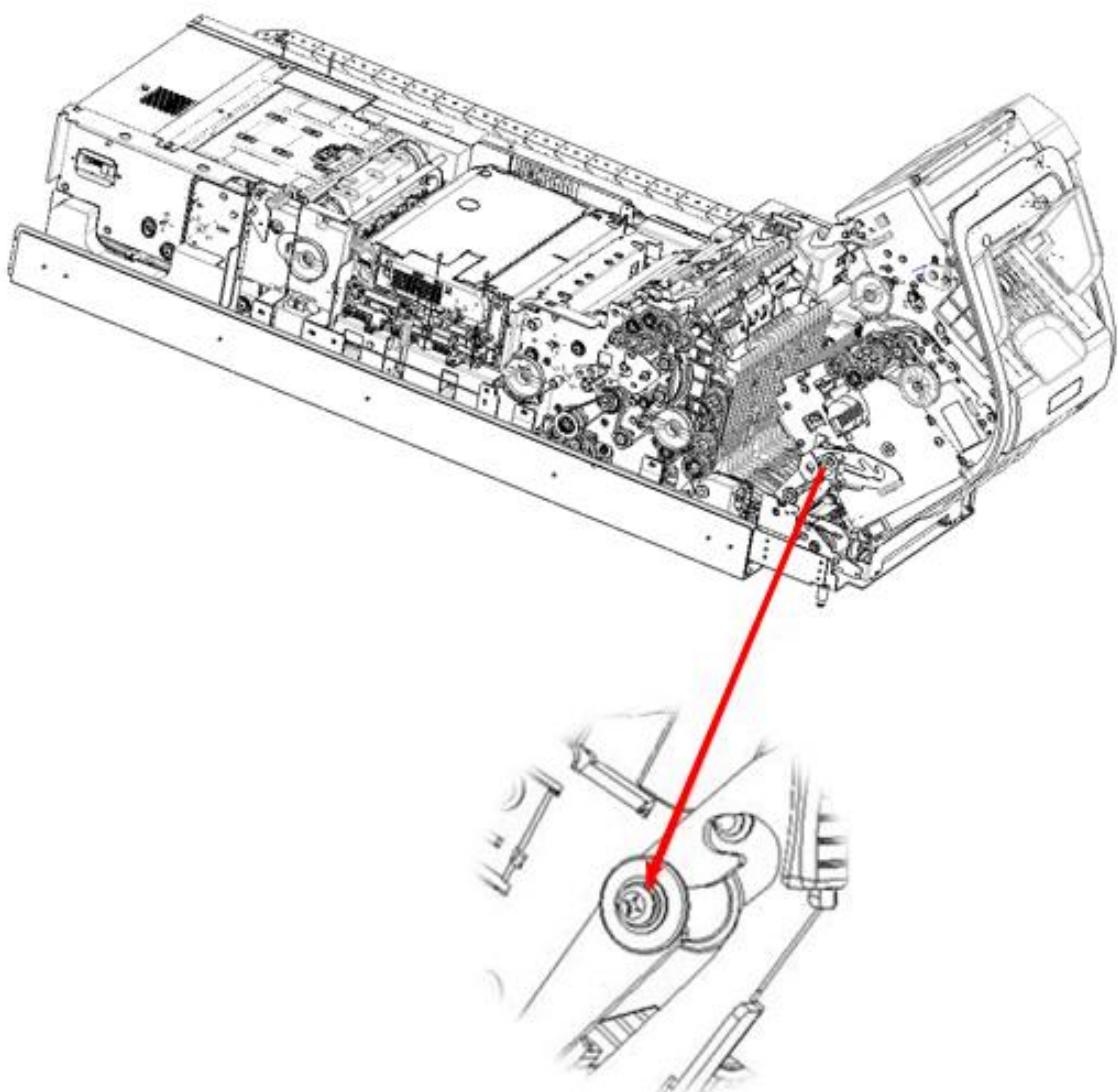
4. Disassemble the cable connected to the CSM board and BRM30 main board.

- Cable Number to be disassembled: CN14, CN16



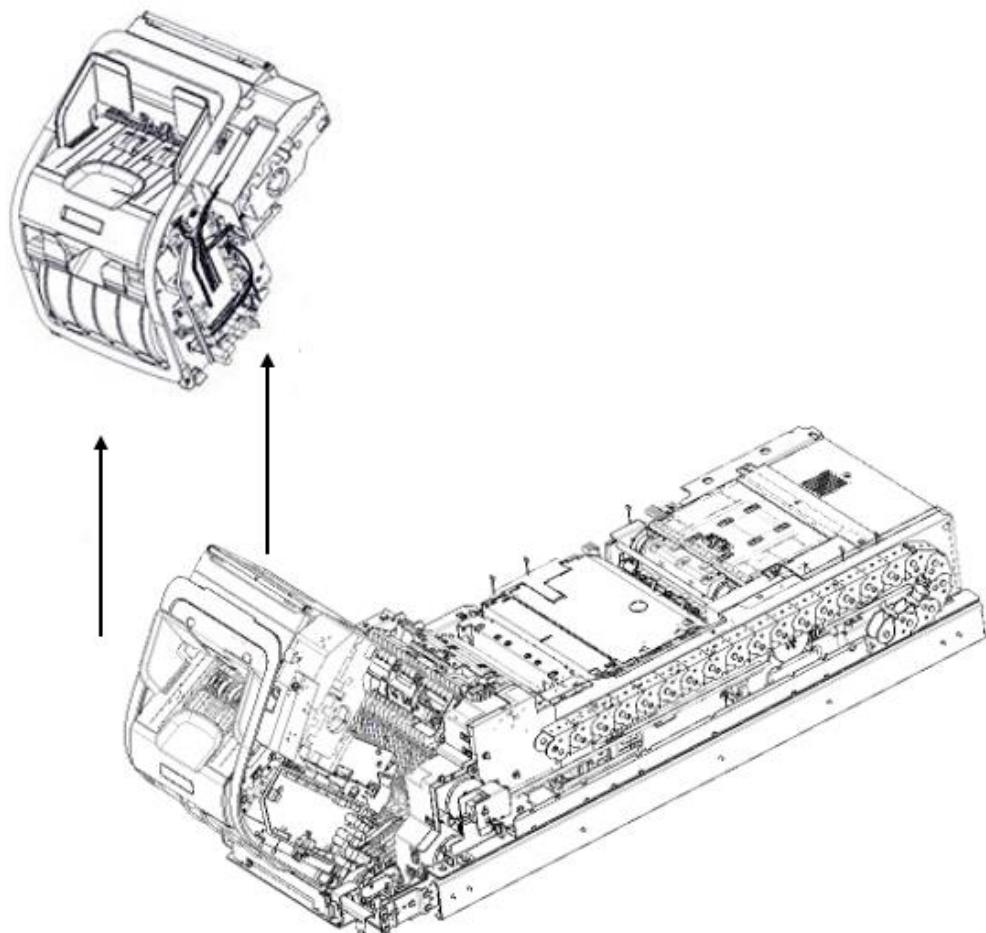
## Bill Recycle Module

5. Remove the screw and spacer of PL Lock.



## Bill Recycle Module

6. Take out the CSM Module Pin from PL Lock and lift up the CSM Module.



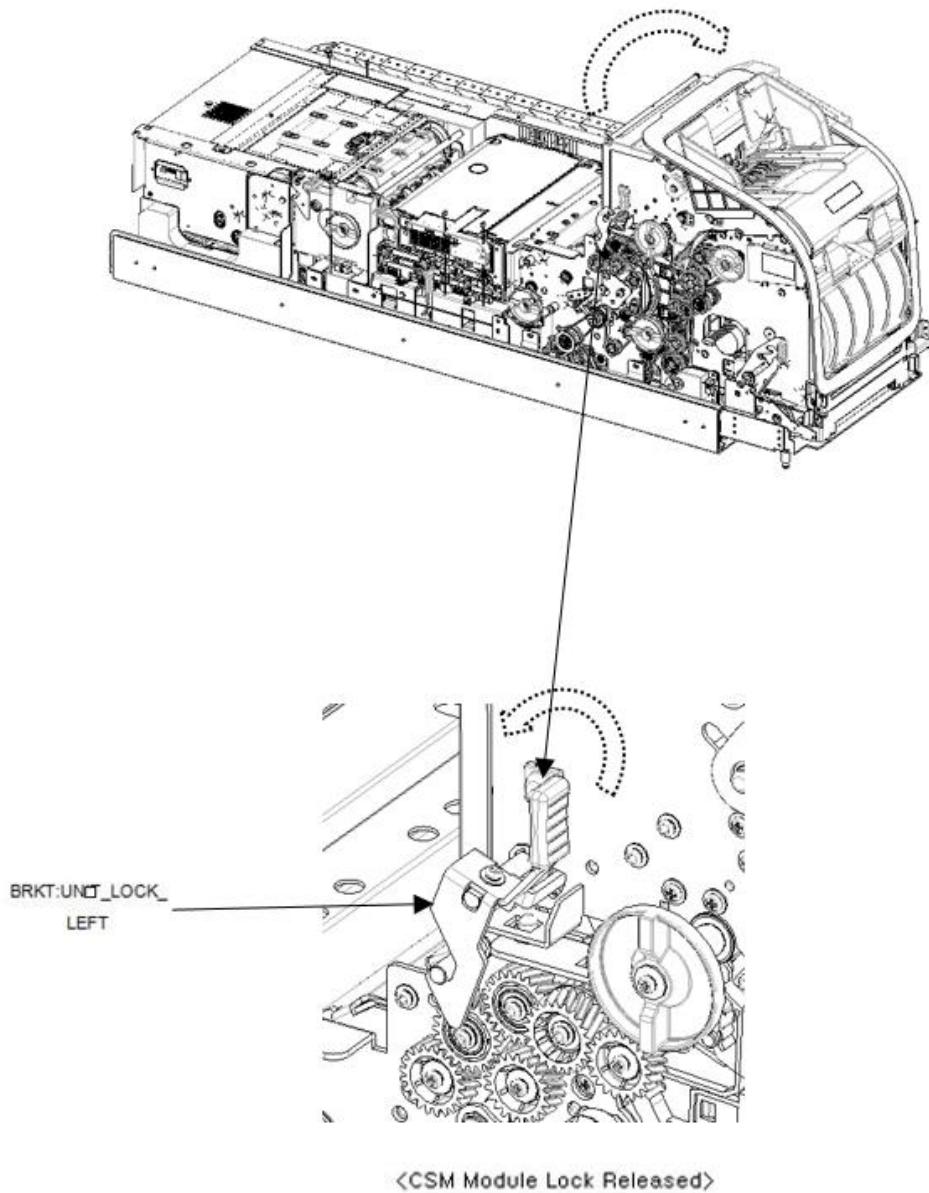
7. Use the reverse order of disassembling to assemble.

# Bill Recycle Module

## Replacing the Separation Module of CSM

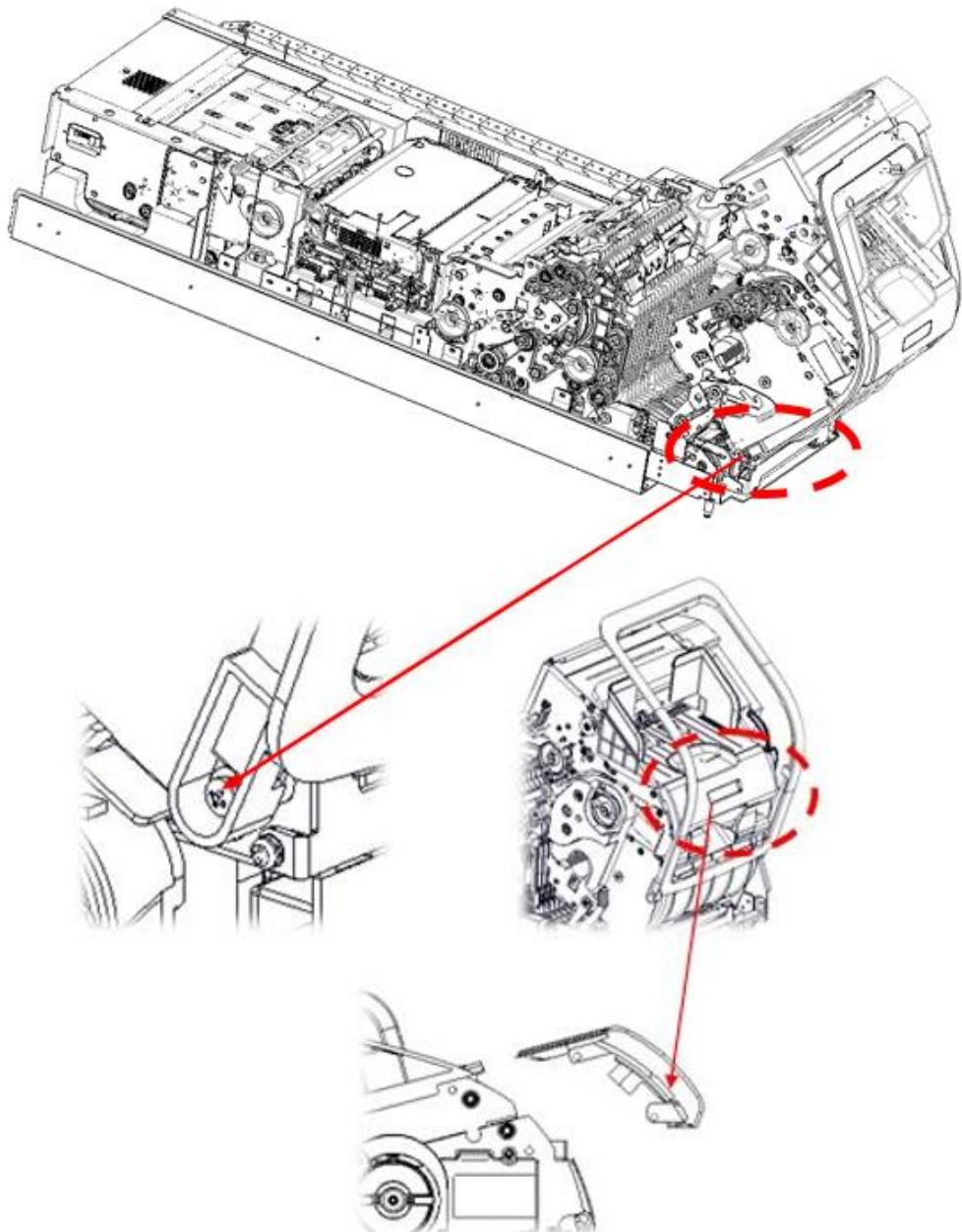
► Replacing the Separation Module of CSM

1. Press the CSM Module Lock in the direction of arrow.
2. Open the Module Lock and lift up the handle to place it in the center groove of PL Lock.



## Bill Recycle Module

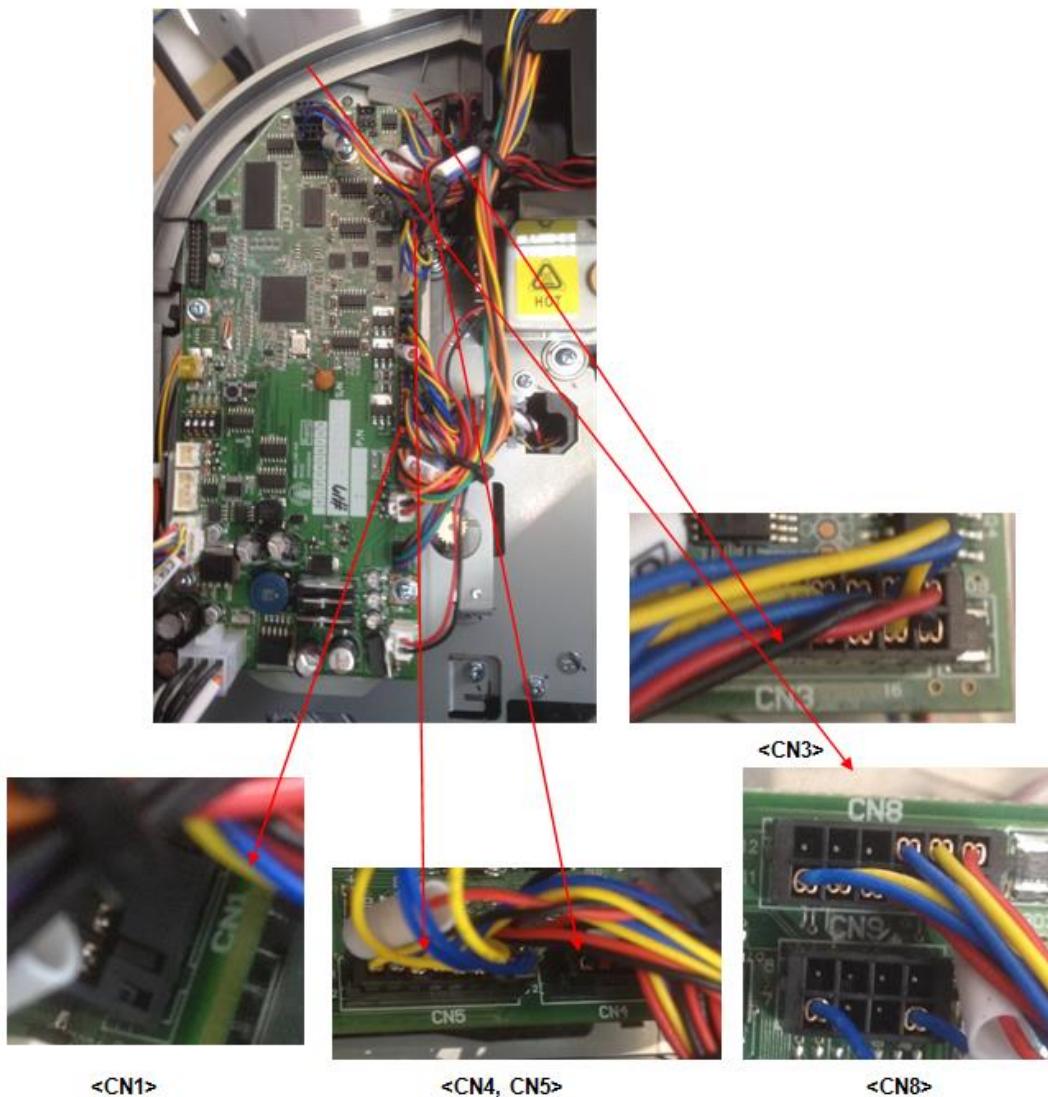
3. Unfasten the screws (M4X12, 2 places on the left and right) of the Front Deco and remove the Front Deco.
4. Disassemble the LCD Panel Assy.
  - Push the left and right Pole of Panel (each 2 places of left and right) and disassemble them using the tension of panel.



## Bill Recycle Module

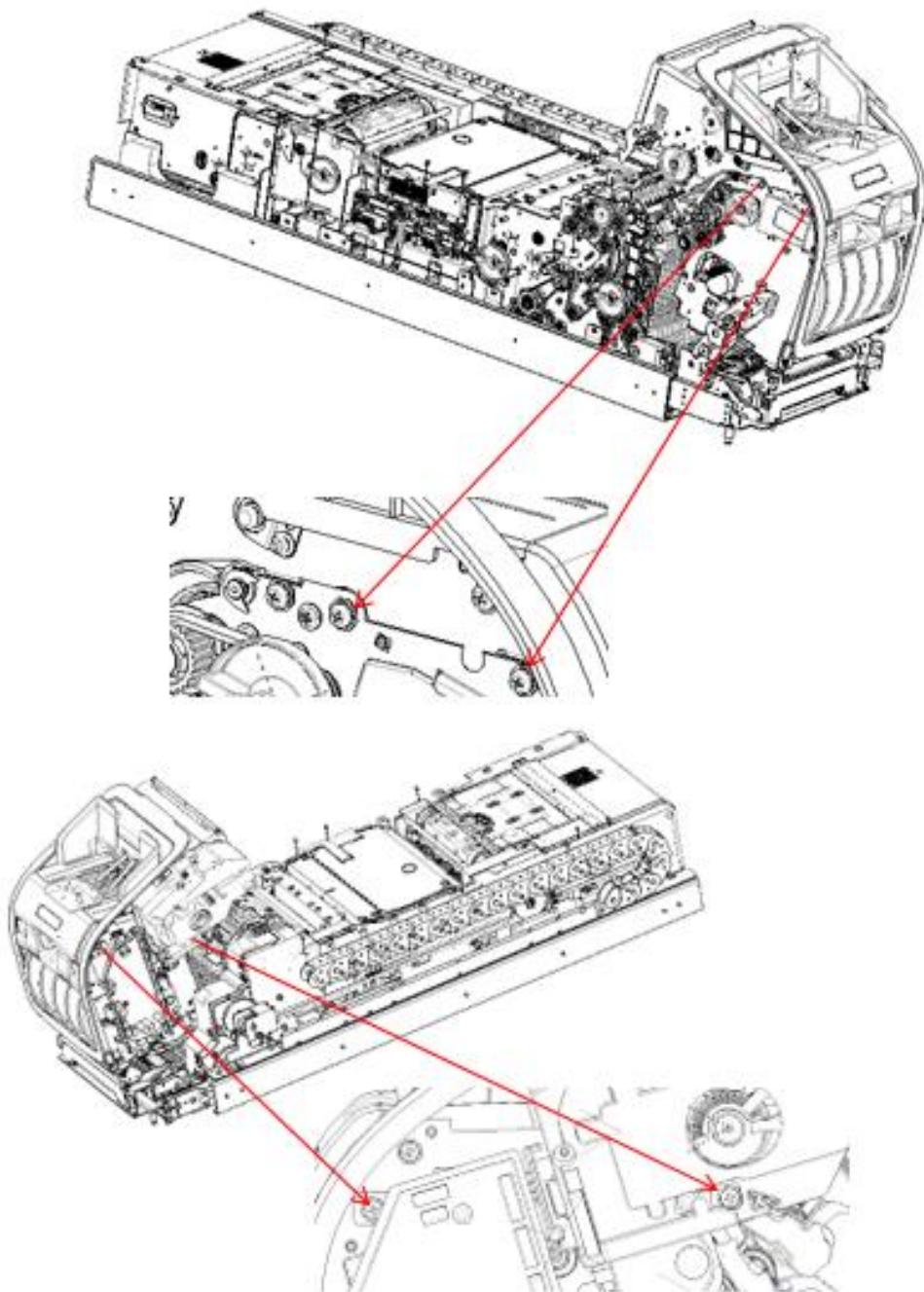
5. Remove the cable from CSM PCB.

Cable Number to be disassembled: CN1, CN3, CN4, CN5, CN8



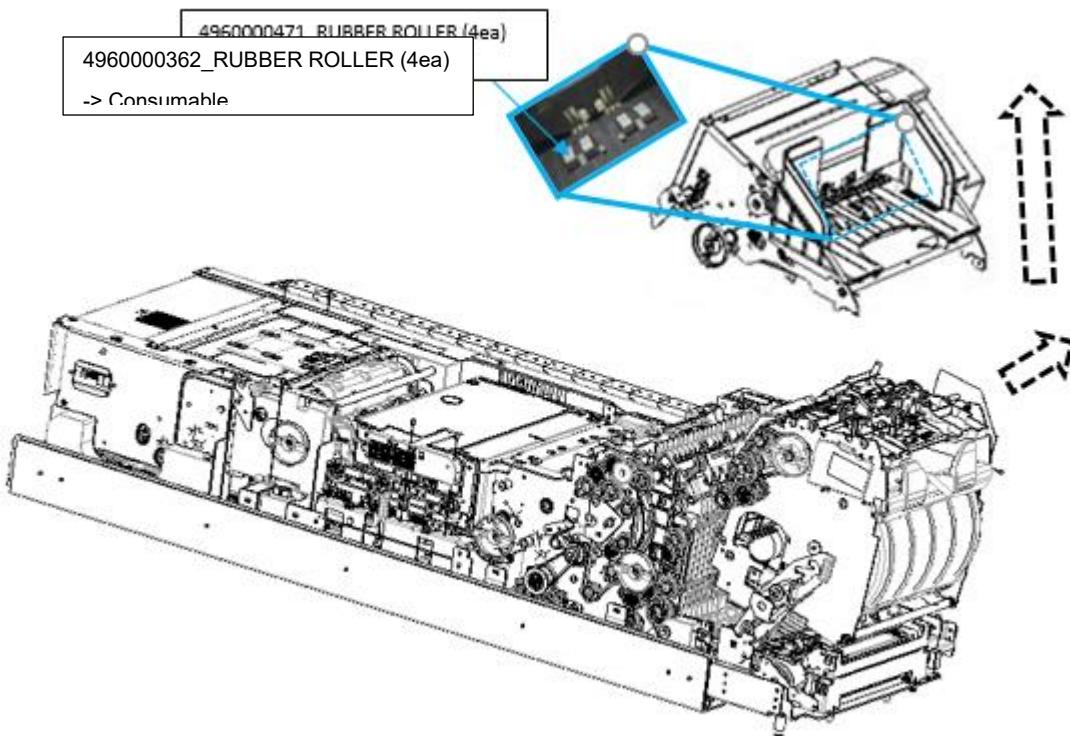
## Bill Recycle Module

6. Remove the screws (M4x8, each 2 places of left and right) which connect the CSM Stack Module and Separation Module.



## Bill Recycle Module

7. Push the CSM Separation Module to the right side and disassemble it from the Stack Module.



8. Move the parts of the following list to new separation module and assemble them.

- GUIDE\_UPPER\_PAINT
- COVER\_UPPER\_ASSY
- SYSTEM\_LOCK\_SHAFT
- BELT\_COVER\_RIGHT
- CLAMP\_CABLE
- SCREW : 6EA

9. Use the reverse order of disassembling to assemble again

# Bill Recycle Module

## Replacing the CSM Stack Module

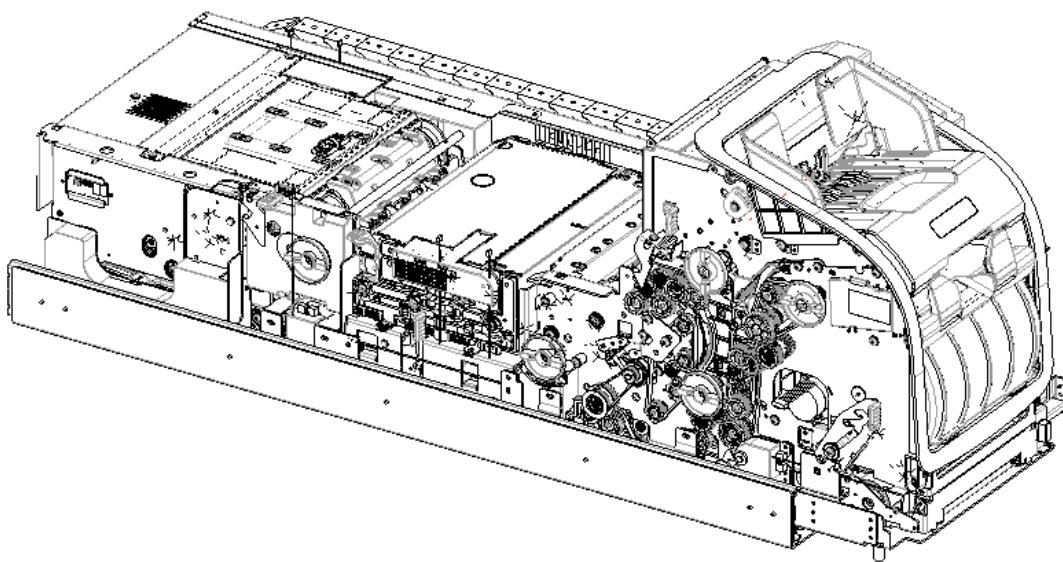
► Replacing the CSM Stack Module

1. Disassemble the CSM Separation Module. (Refer to "Replacing CSM Separation Module")
2. Perform disassembling in the same method of CSM Module Replacement. (Refer to "Replacing CSM Module")
3. Use the reverse order of disassembling to assemble again.

## Replacing Front Module

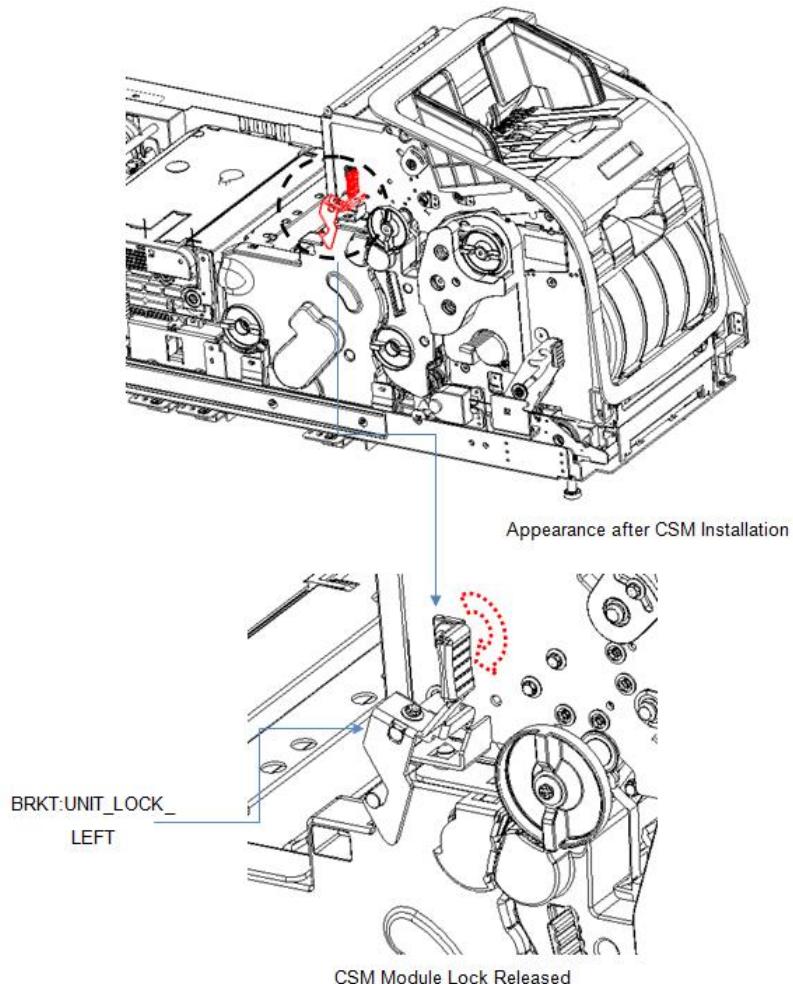
► Replacing Front Module

1. Upper Assembly Drawing of BRM30



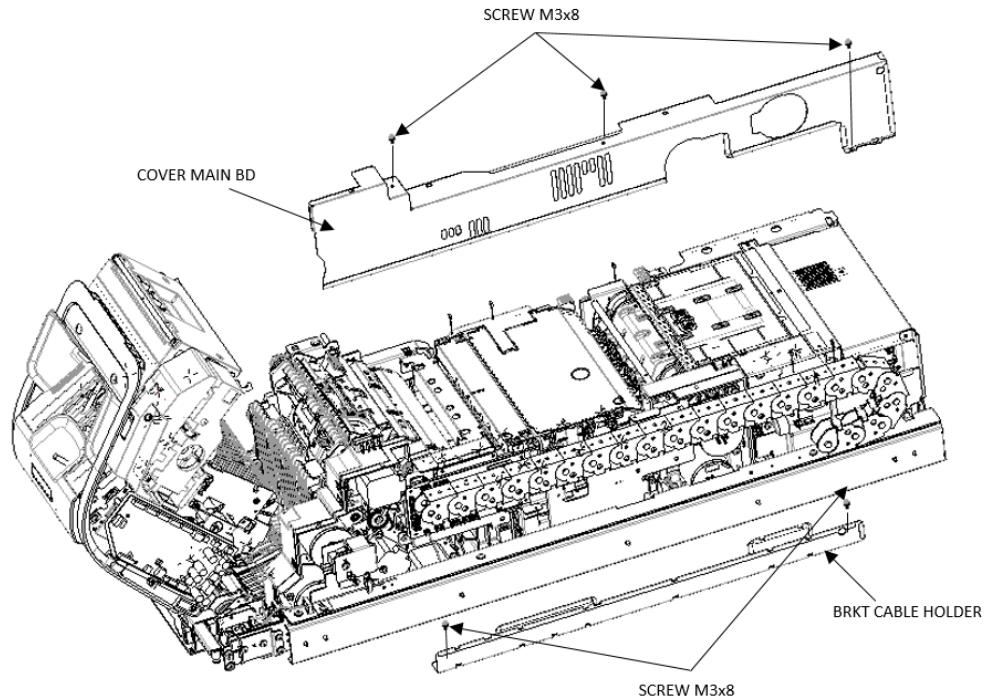
## Bill Recycle Module

2. Disassemble the cover main board and remove the cable
  - Press the CSM Module Lock in the direction of arrow.
  - Open the Module Lock and lift up the handle.

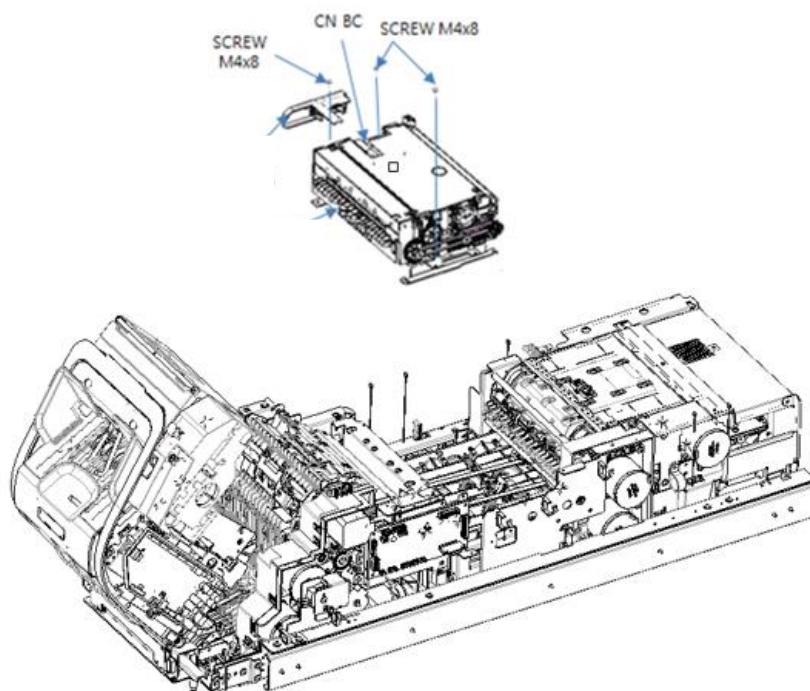


## Bill Recycle Module

- Lift up the CSM Module
- Disassemble the Cover Main B/D and Bracket\_Cable\_Holder.

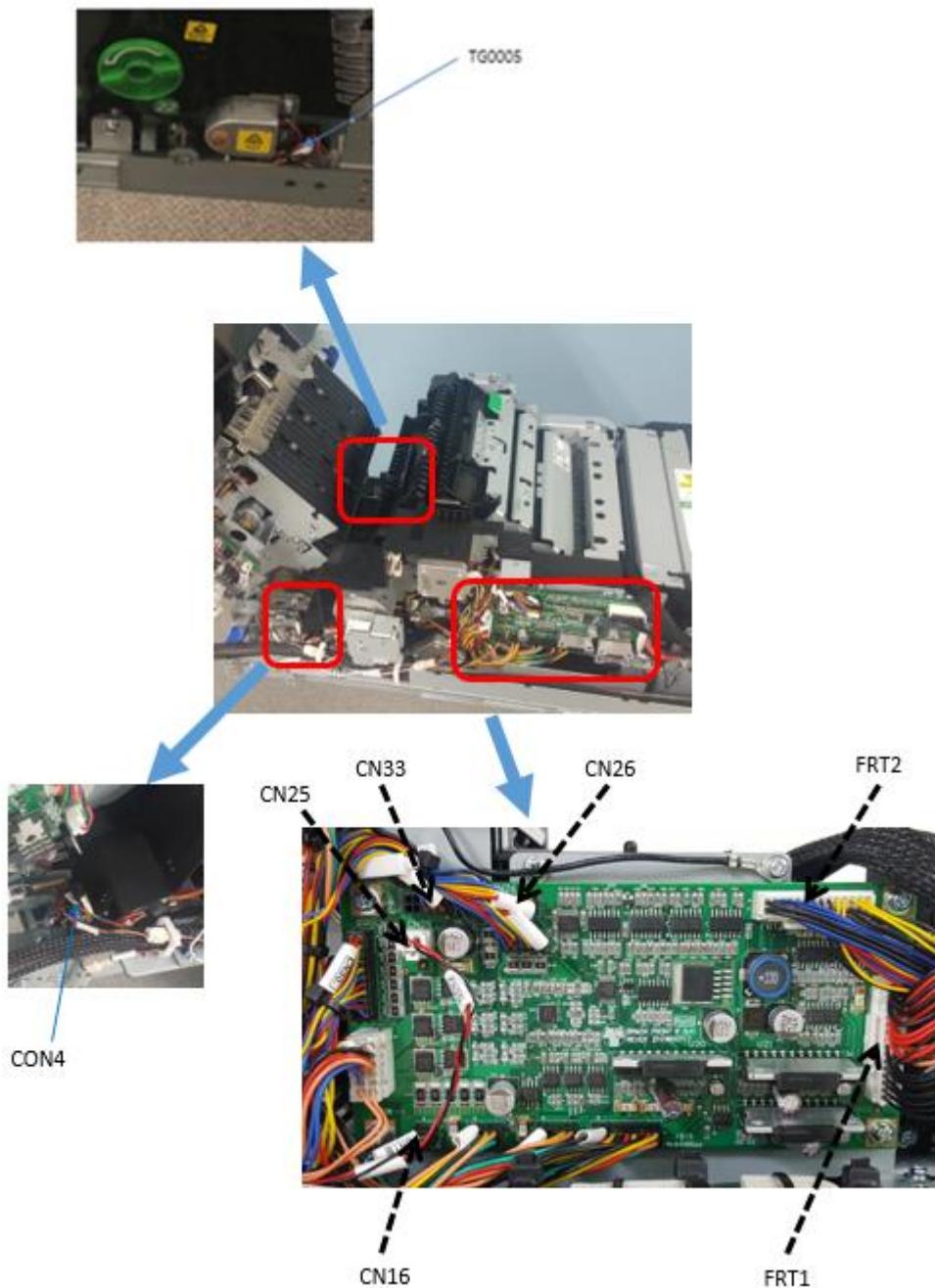


- Disassemble the BC (7000000396)



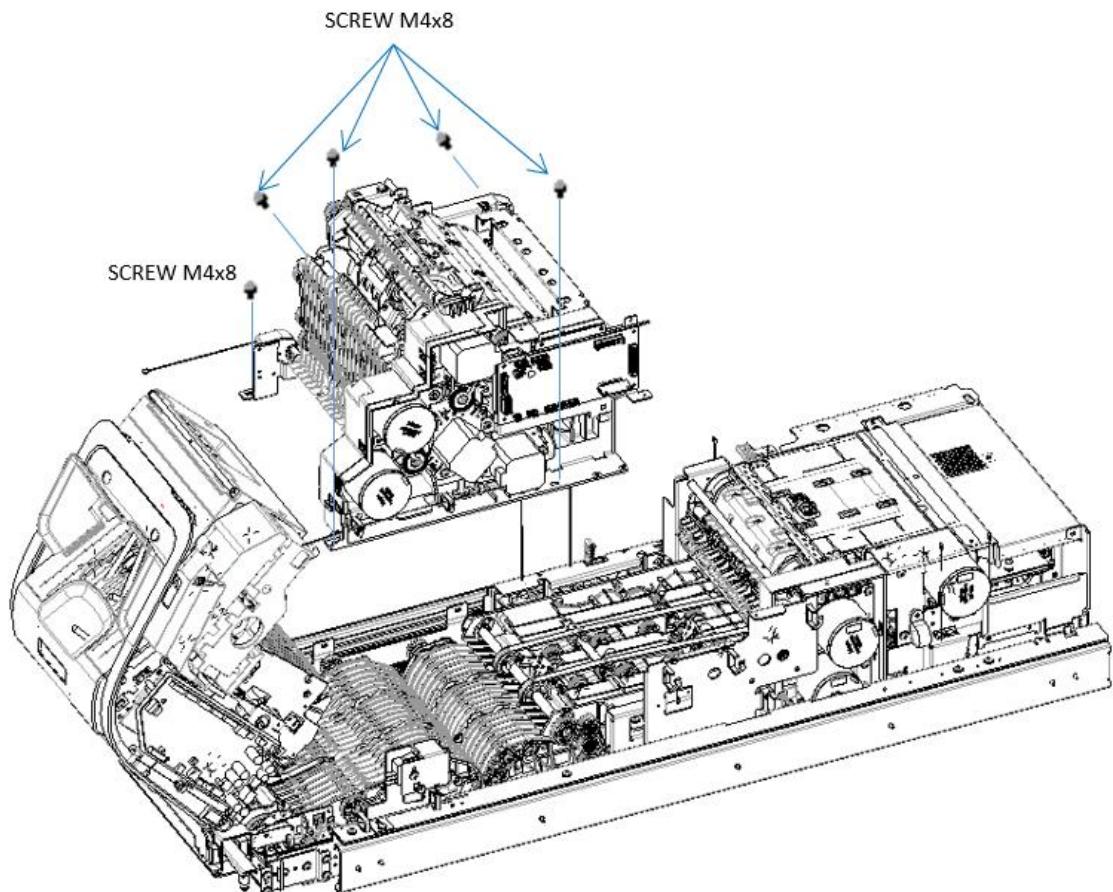
## Bill Recycle Module

- Disassemble the connection cable.
  - Connection Cable Number of Assy Front: TG0005, CON14B, FRT1, FRT2, CN26, CN33, CN25, CN16



## Bill Recycle Module

- Disassemble the Front Module.



3. Use the reverse order of disassembling to assemble again.

# Bill Recycle Module

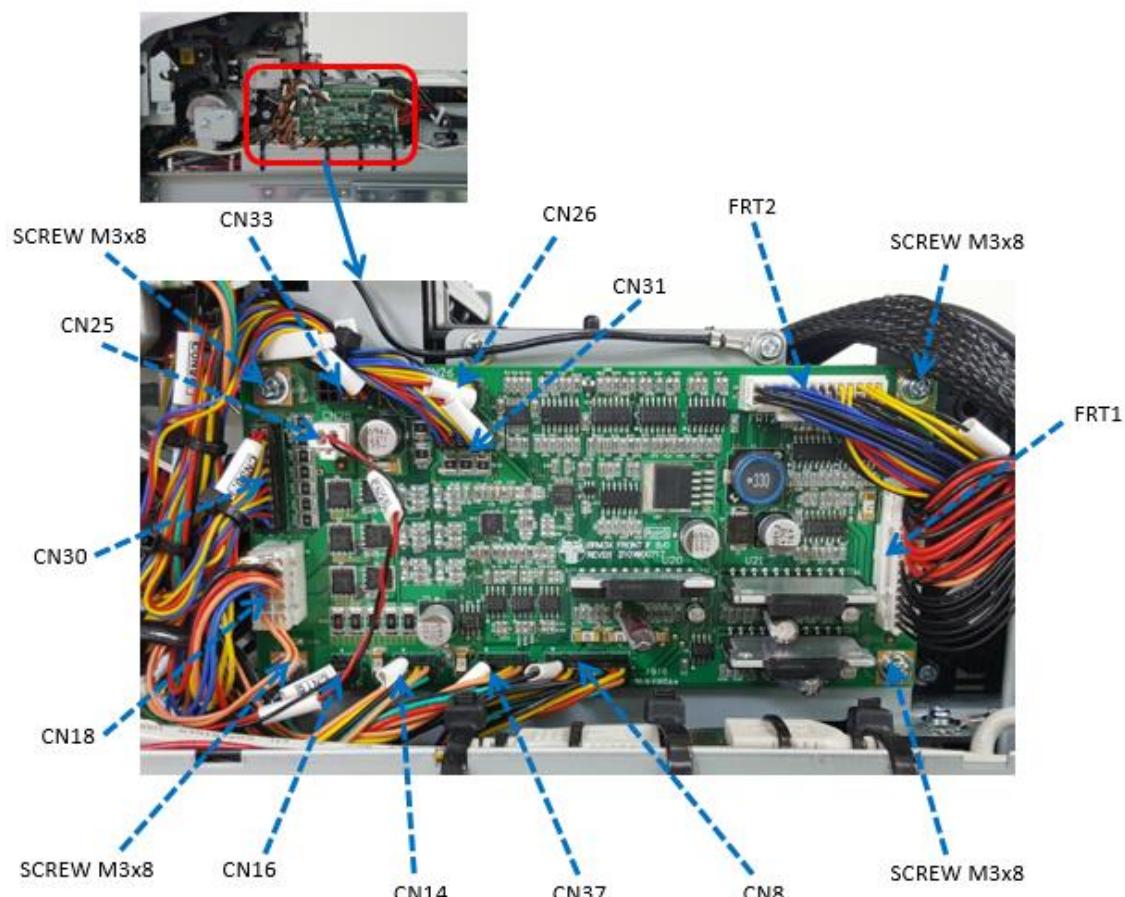
## 4. Disassembling and Assembling BOARD Front IF

\* Board is replaceable without disassembling the ASSY FRONT from BMU.

- Disassemble the SCREW (4ea) fixing BOARD.

- Disassemble the CONNECTOR from BOARD.

CONNECTOR : FRT1, FRT2, CN25, CN26, CN31, CN33, CN30, CN18, CN16, CN14, CN37, CN8



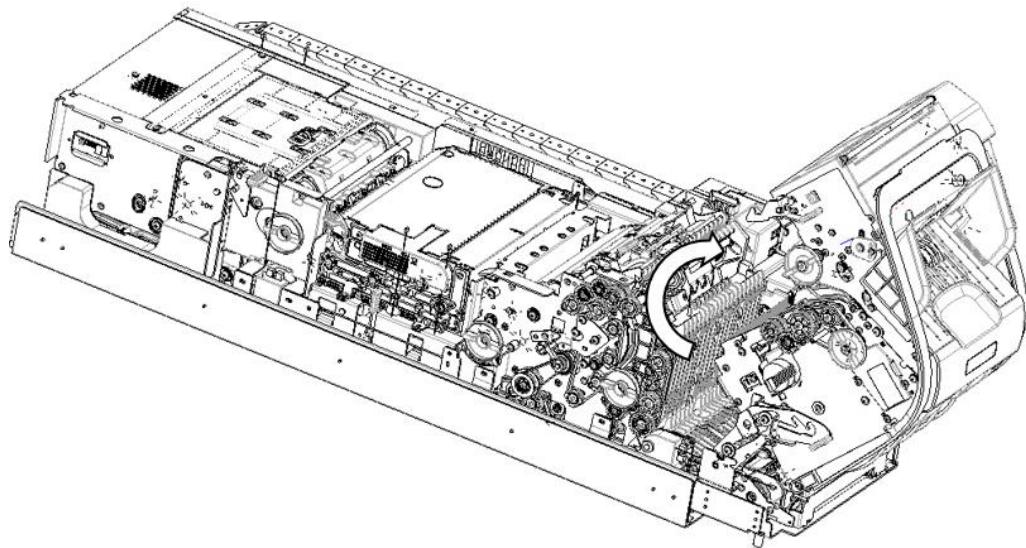
- Use the reverse order of disassembling to assemble.

# Bill Recycle Module

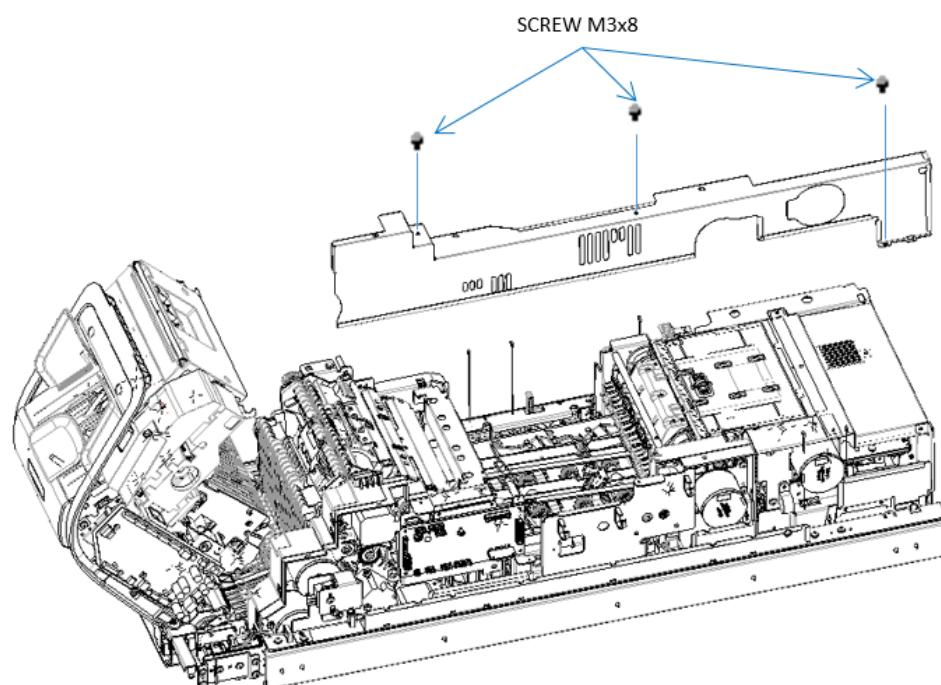
## Replacing the option module

► Replacing the option module

1. Release the CSM Lock Lever and open the CSM.



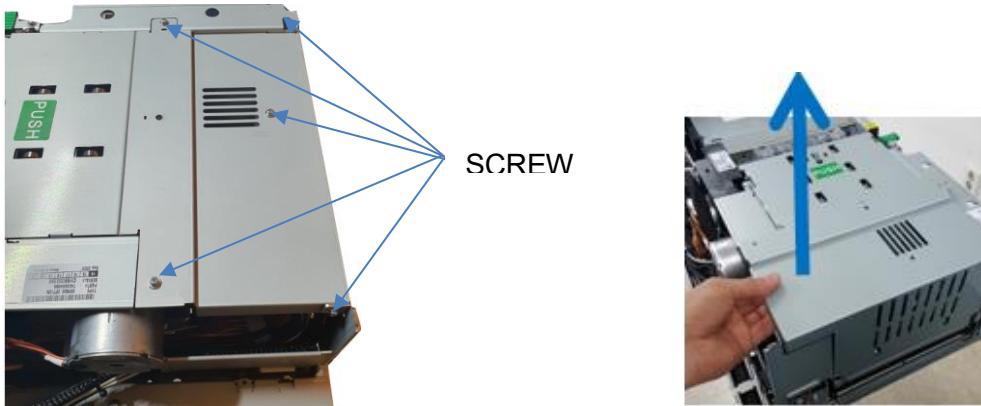
2. Unfasten the screw fixing BMU (upper module) Module Cover and disassemble the cover.



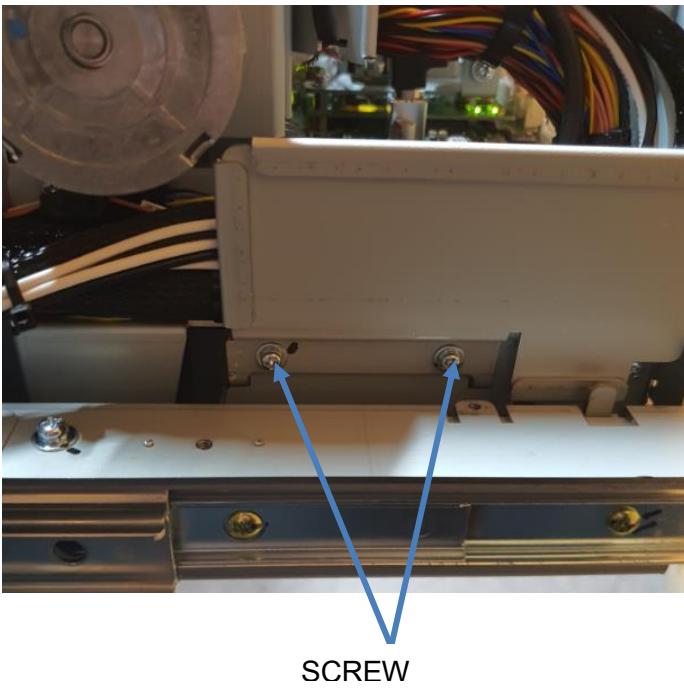
## Bill Recycle Module

### 3. Disassemble

3-1. Unfasten the screw fixing Option Module Cover and disassemble the cover.

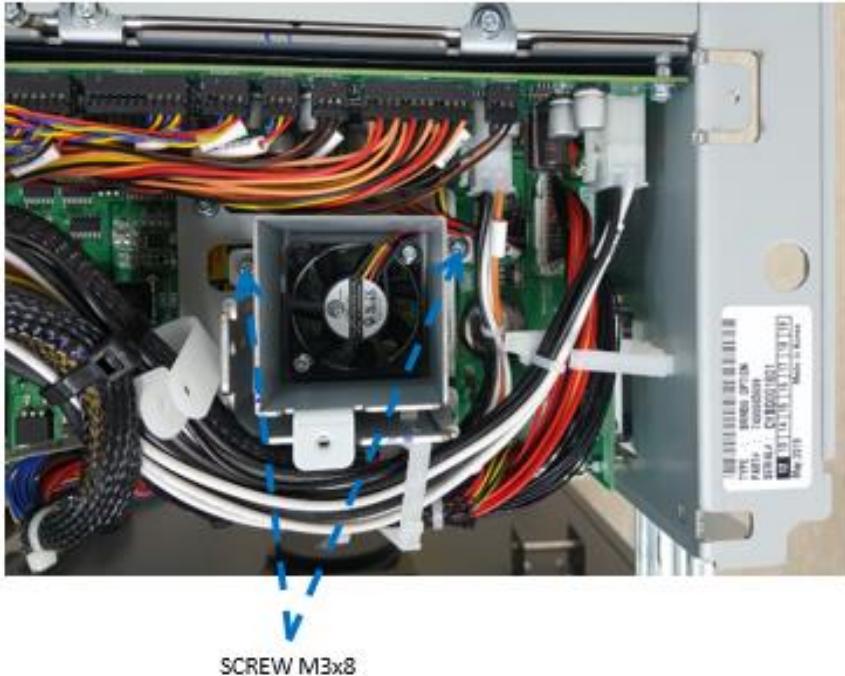


3-2. Unfasten the screw fixing BRKT Chain



## Bill Recycle Module

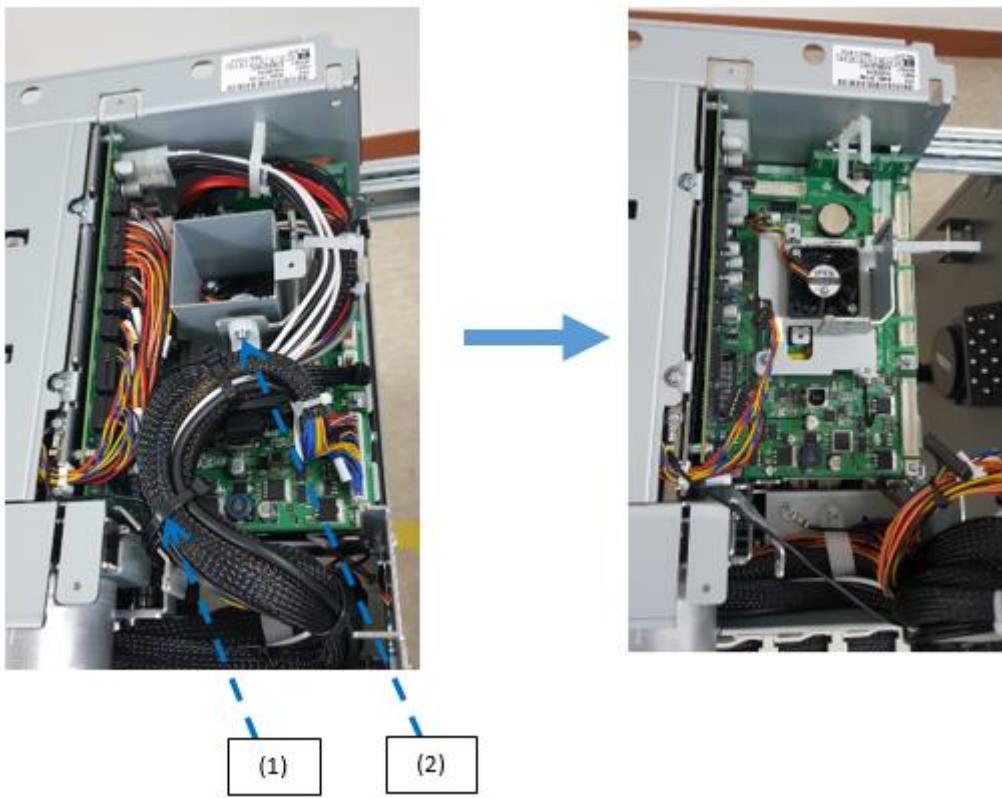
3-3.. Unfasten the screw fixing BRKT\_AIR\_PATH



3-4. Disassemble all CABLE connectors from the board first. (except CN39 FAN)

- (1) Cut the Cable Tie.
- (2) Loosen the SCREW M3x8 fixing 33640301\_CLAMP.

## Bill Recycle Module



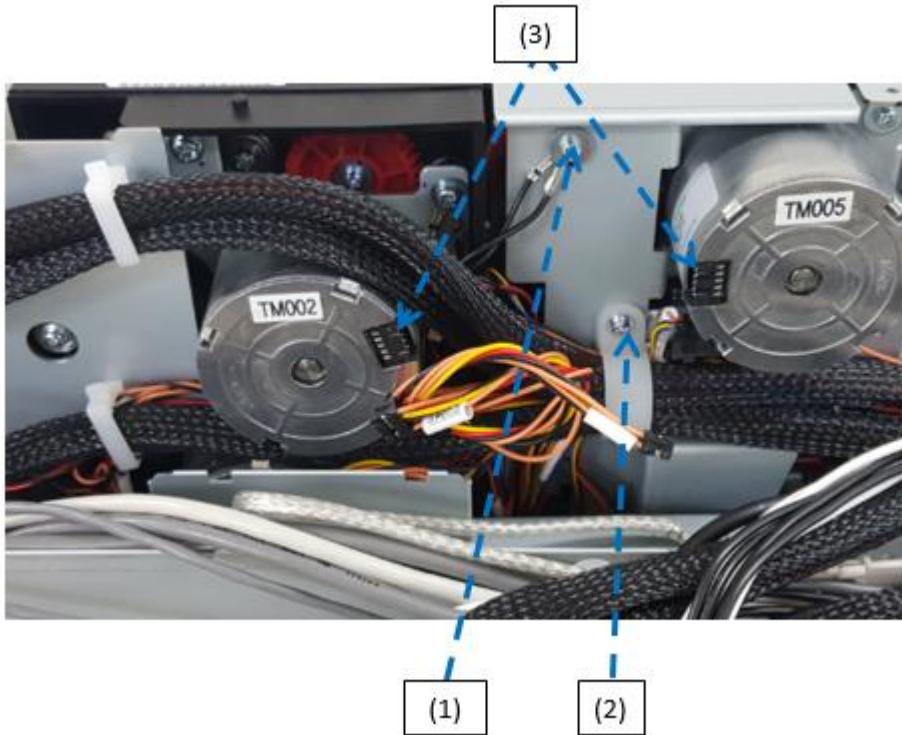
3-5.. Unfasten the screw fixing FG-Cables (2ea) and Clamp (1ea)



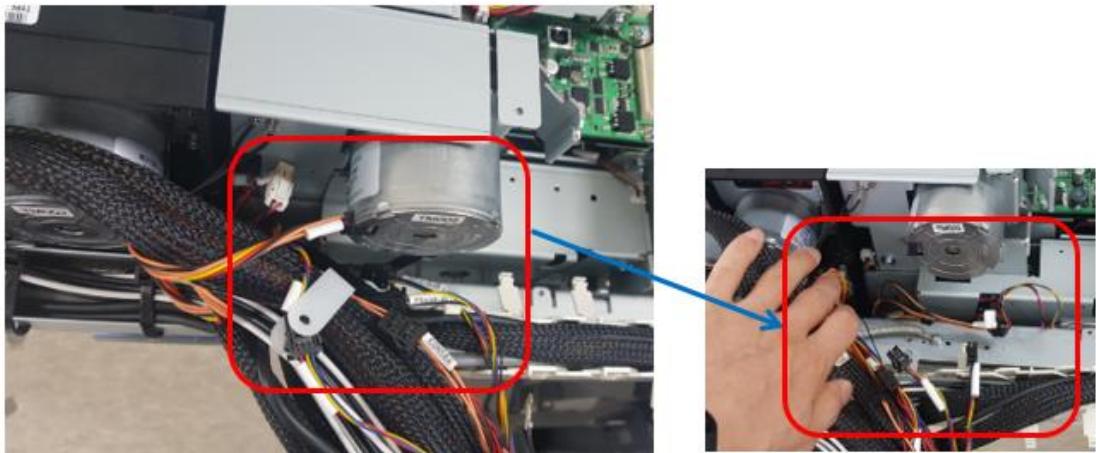
3-6.

- (1) Unfasten the screw fixing FG-Cables (2ea) : SCREW M3X8
- (2) Unfasten the screw fixing Clamp : CLAMP
- (3) Disassemble the connection cables (TM002, TM005)

## Bill Recycle Module

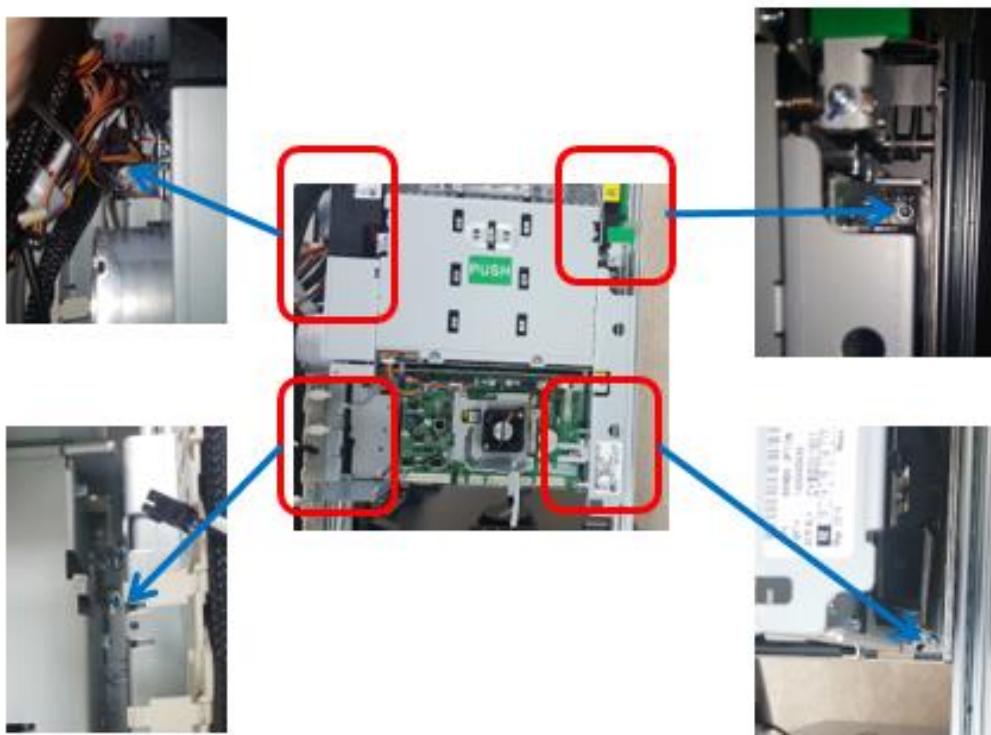


3-7. Disassemble the intermediate connector of the indicating scope. (4ea)  
(Intermediate connector : TS005-PLUG, TS012-PLUG, CON58A, TL008)

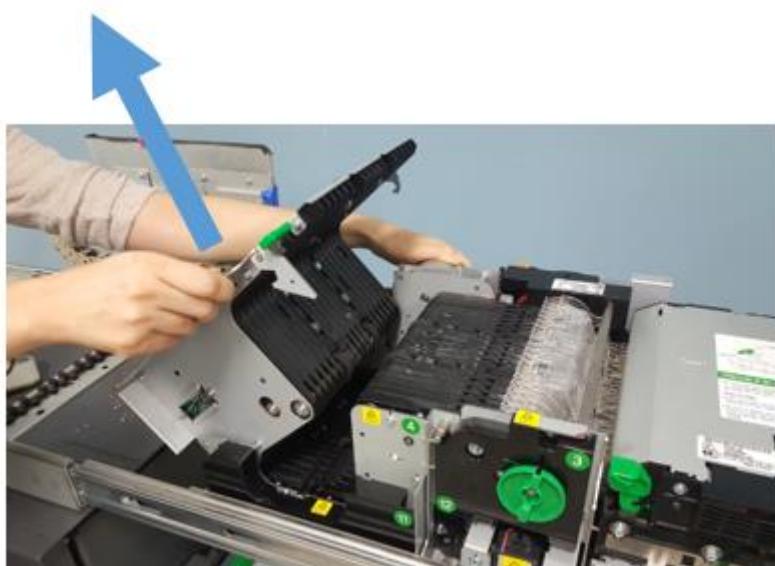


## Bill Recycle Module

3-8. Unfasten the screw fixing Assy Option : SCREW M4x8 (4ea)

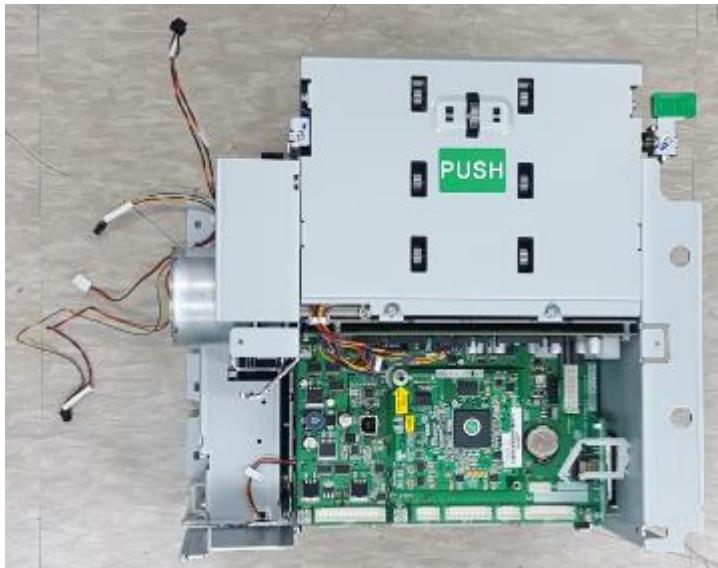


3-9. Open the upper section of option module and disassemble it in the direction of arrow.



## Bill Recycle Module

3-10. ASSY OPTION



## Bill Recycle Module

### 4. Assemble

4-1. Assemble the Assy Option on BMU.



4-2. Assemble the intermediate connector of the indicating scope. (4ea)

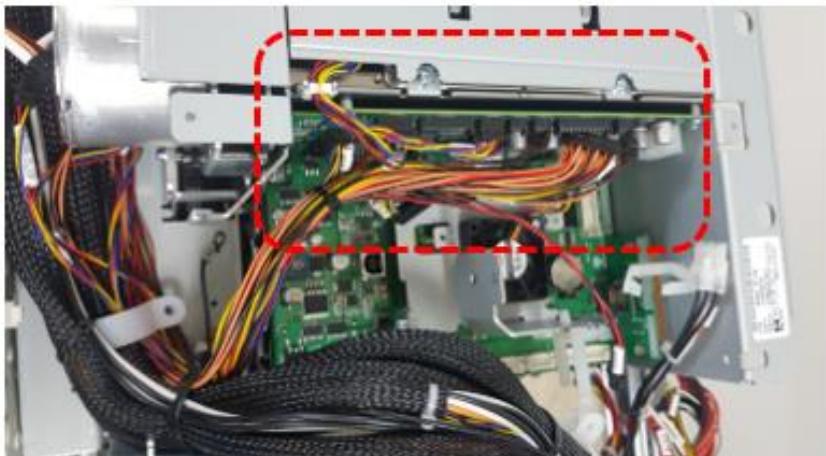
(intermediate connector : TS005-PLUG, TS012-PLUG, CON58A, TL008)



## Bill Recycle Module

4-3. Assemble the connector of the indicating scope first.

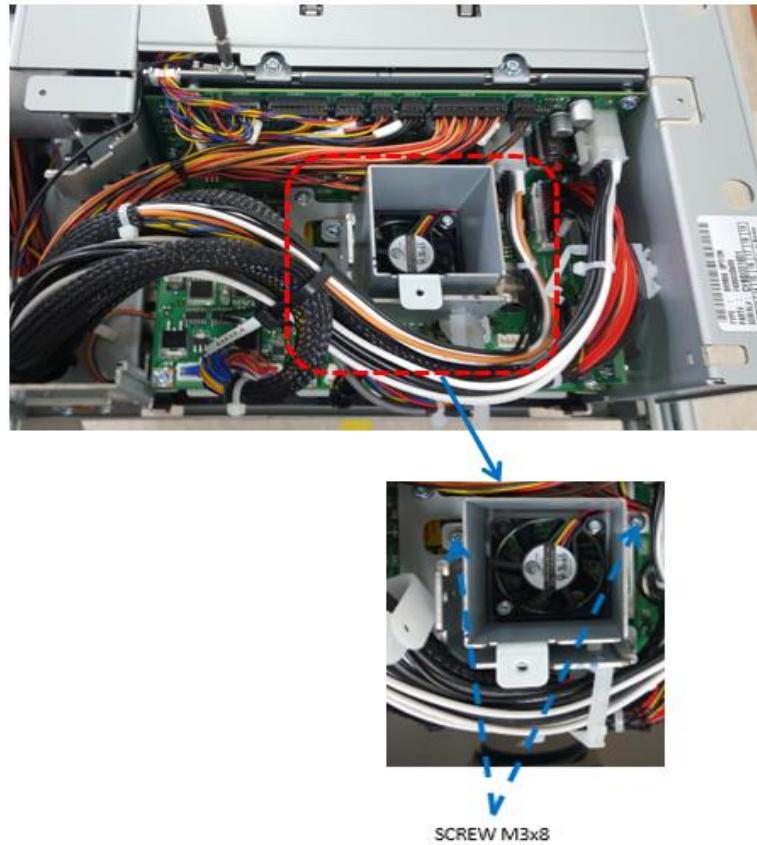
CONNECTOR : CN27, CN55, CN56, CN57, CN32, CN17, CN15, CN58, CN34  
(Refer to "5-10" for the assembling position of board connector)



4-4. Assemble the other connector (9ea) and fix the BRKT\_AIR\_PATH using SCREW.

CONNECTOR : FRT1, FRT2, CN7, CN19, CN5, CN3 (USB), CN22, CN9 (MAIN PWR)  
CN10 (CSM PWR)  
(Refer to "5-10" for the assembling position of board connector)

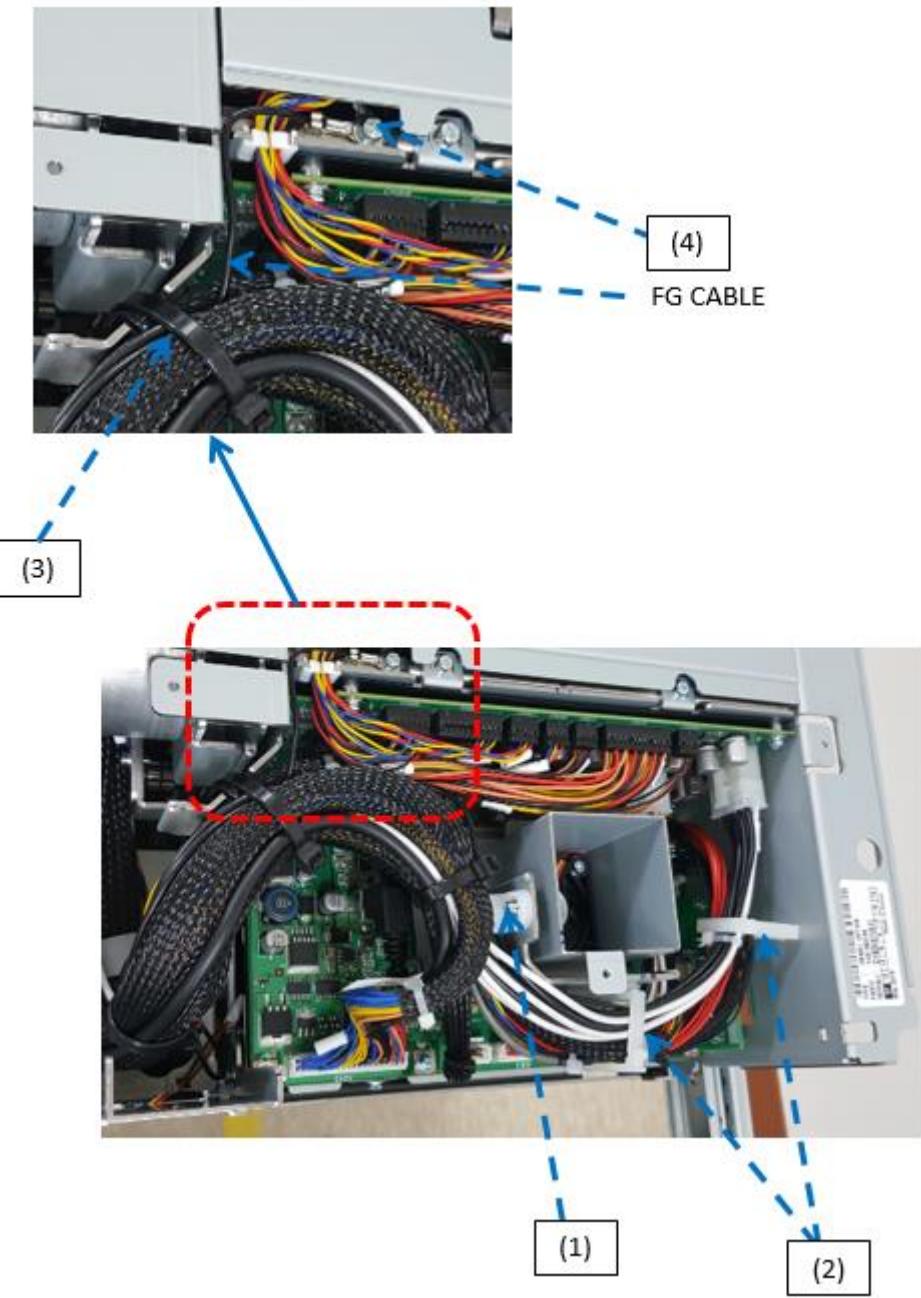
## Bill Recycle Module



4-5.

- (1) Insert the CABLE into the 33640301\_CLAMP and fix it with the SCREW.  
except SYSTEM CABLE : CN9 MAIN PWR, CN3 USB, CN5 RBU Communication  
CN22 TRANSIT CST
- (2) Arrange the CABLE and close the CLAMP.
- (3) Lash all cables to the indicating BRKT with the CABLE TIE.
- (4) Fix the FG-CABLE with the SCREW. (except star washer)

## Bill Recycle Module



## Bill Recycle Module

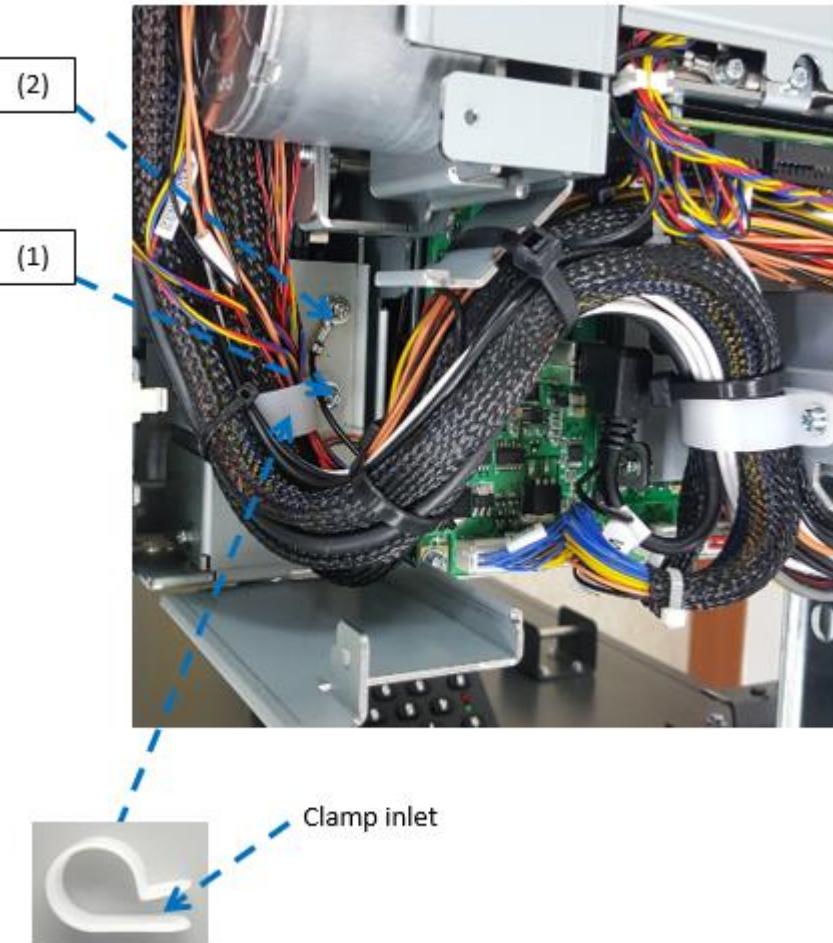
4-6.

(1) Insert the CABLE into the CLAMP and fix it with the SCREW.

except SYSTEM CABLE : CN9 MAIN PWR, CN3 USB, CN5 RBU Communication  
CN22 TRANSIT CST

\* Caution : The cable must not be jammed in the Clamp inlet.

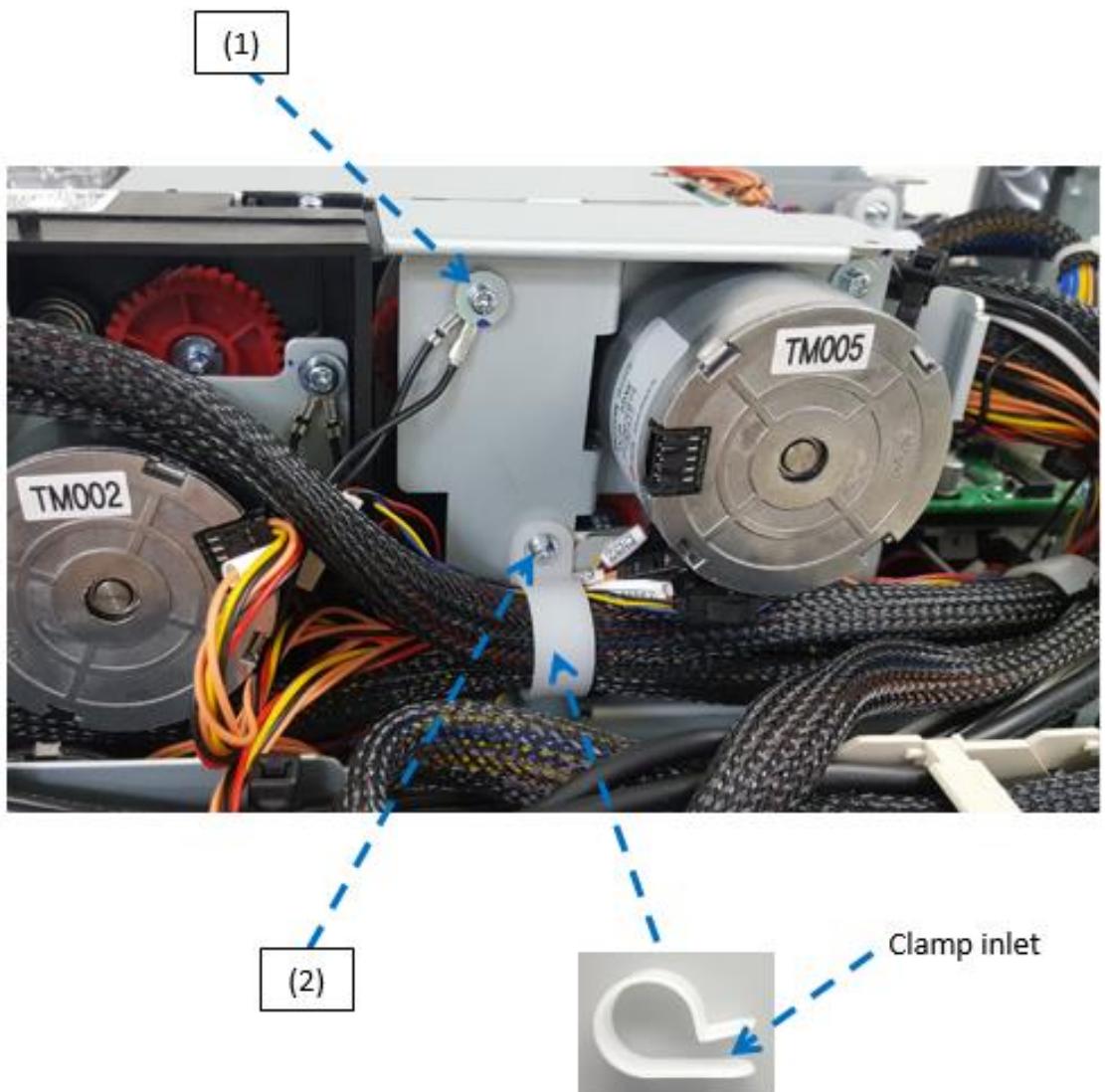
(2) Fix the FG-CABLE with the SCREW.



# Bill Recycle Module

4-7.

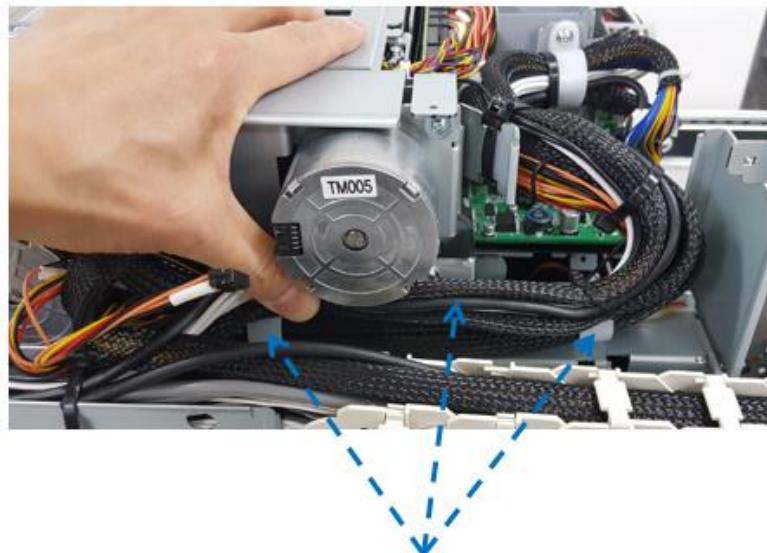
- (1) Fix the FG-CABLE (2ea) with the SCREW M3x8.
  - (2) Insert the CABLE into the CLAMP and fasten it with the SCREW.  
except SYSTEM CABLE : CN9 MAIN PWR, CN3 USB, CN5 RBU Communication  
CN22 TRANSIT CST
- \* Caution : The cable must not be jammed in the Clamp inlet.



## Bill Recycle Module

4-8. Arrange 4 types of SYSTEM CABLE over the indicating CLAMP.

\* SYSTEM CABLE : CN9 MAIN PWR, CN3 USB, CN5 RBU Communication  
CN22 TRANSIT CST.



4-9. Arrange the CABLE between TM002 and TM005.

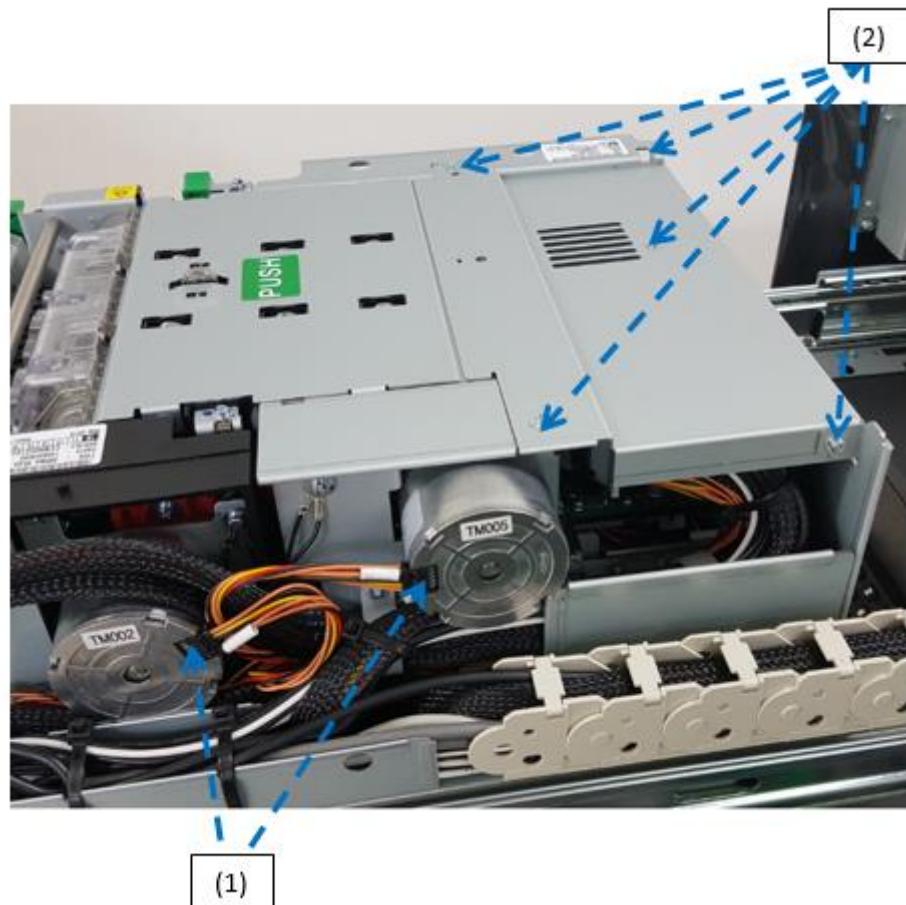
(1) Fix the BRKT Chain with the SCREW M3x8.



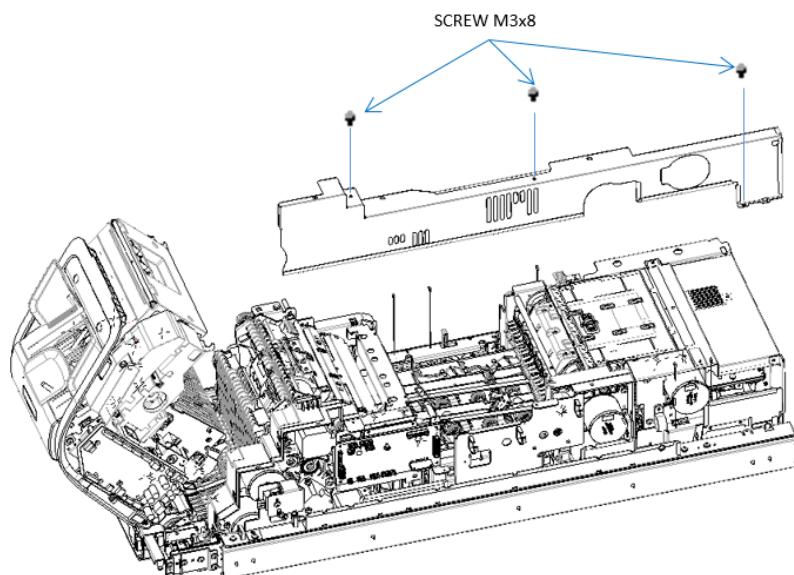
## Bill Recycle Module

4-10.

- (1) Fasten the connector TM005 and TM002.
- (2) Fix the Cover Option with the SCREW M3x8 (5ea).



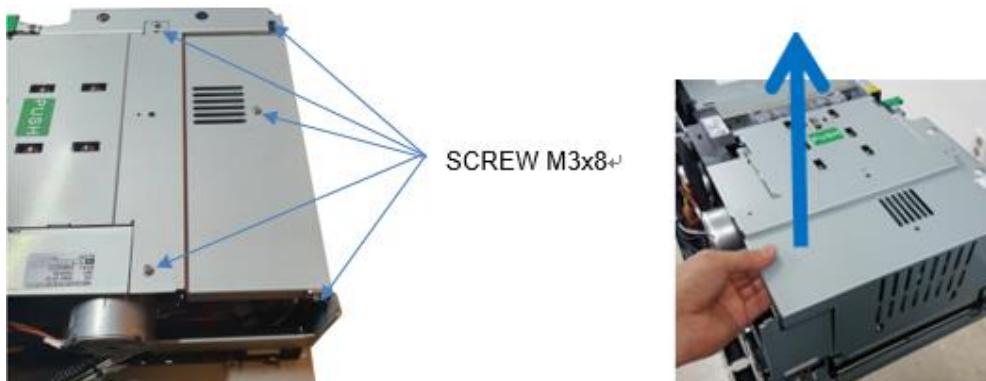
4-11. Fix the COVER MAIN with the SCREW (3ea)



## Bill Recycle Module

### 5. Disassembling and Assembling the MAIN BOARD

5-1. Loosen the SCREW (5ea) and disassemble the COVER OPTION.



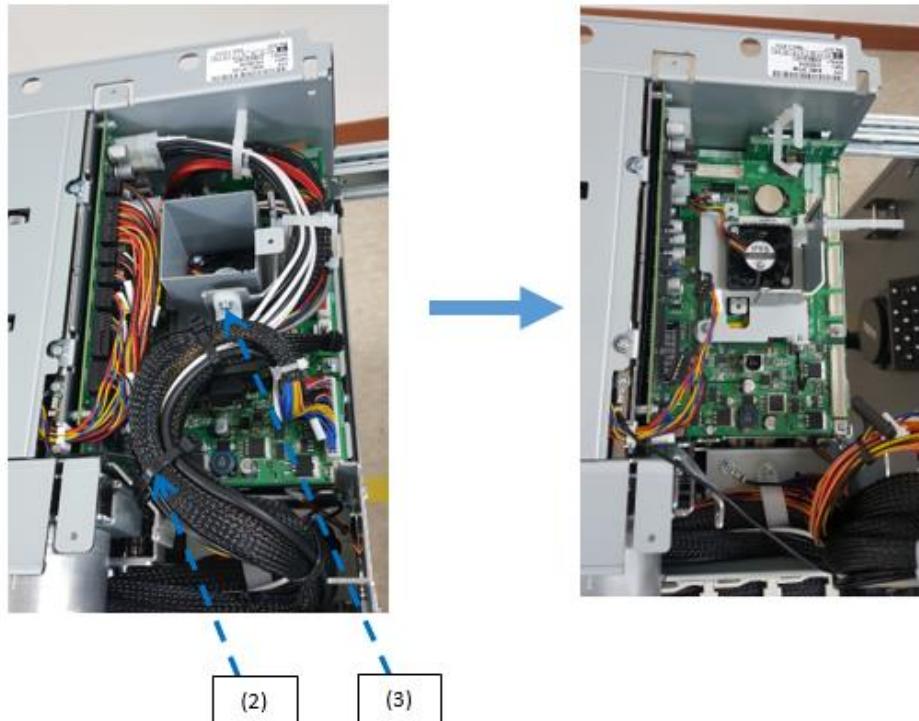
5-2. Unfasten the screw fixing BRKT\_AIR\_PATH



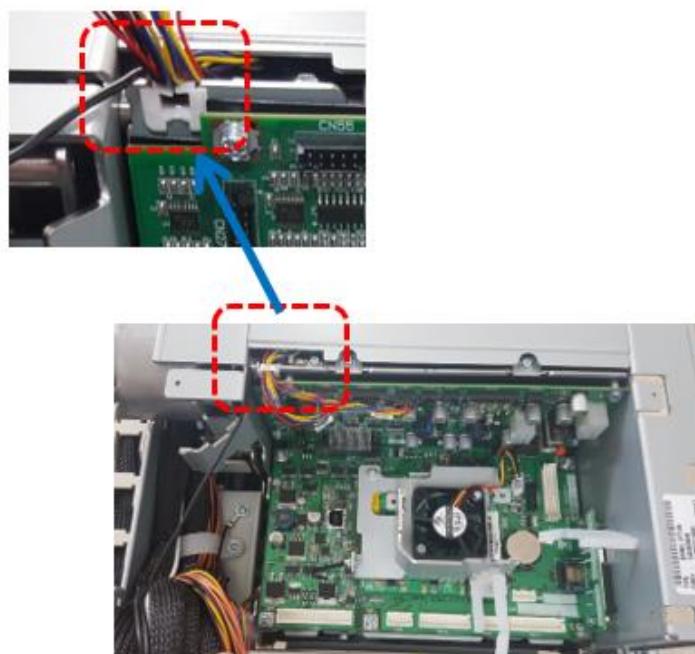
## Bill Recycle Module

5-3.

- (1) Disassemble all CABLE connectors from the board first. (except CN39 FAN)
- (2) Cut the Cable Tie.
- (3) Loosen the SCREW M3x8 fixing 33640301\_CLAMP.
- (4) Turn all cables to Hot Side.



5-4. Remove 3 types of Cable (CN55, CN57, FG-CABLE) from Clamp.



## Bill Recycle Module

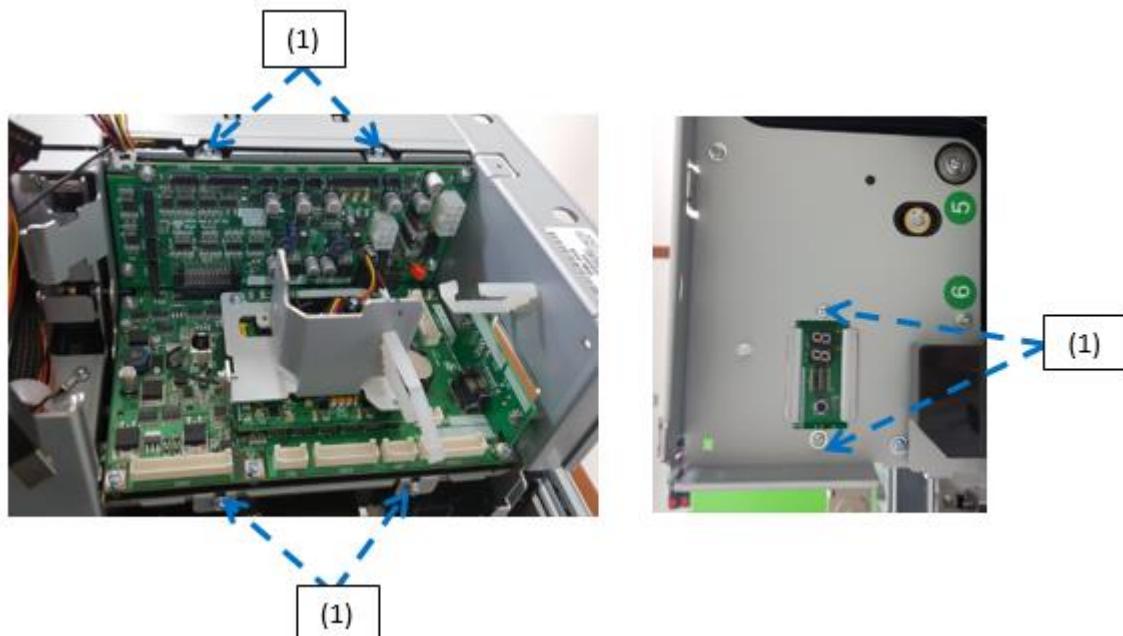
5-5. Loosen the SCREW fixing the ASSY MAIN BOARD.

- (1) Loosen the SCREW M3x8 (6ea).
- (2) Loosen the SCREW M3x8 (1ea) under the BOARD.

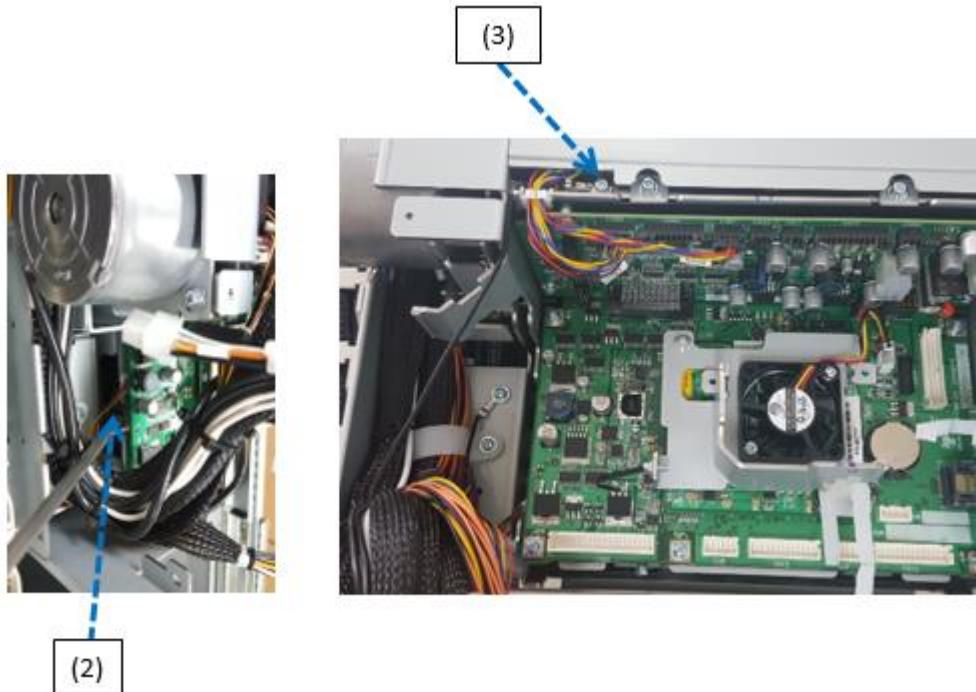
\* Caution (Applied time : from the parts produced on 2019.07.01)

The SCREW of (2) moves to the position of (3) and it is unnecessary to disassemble it.

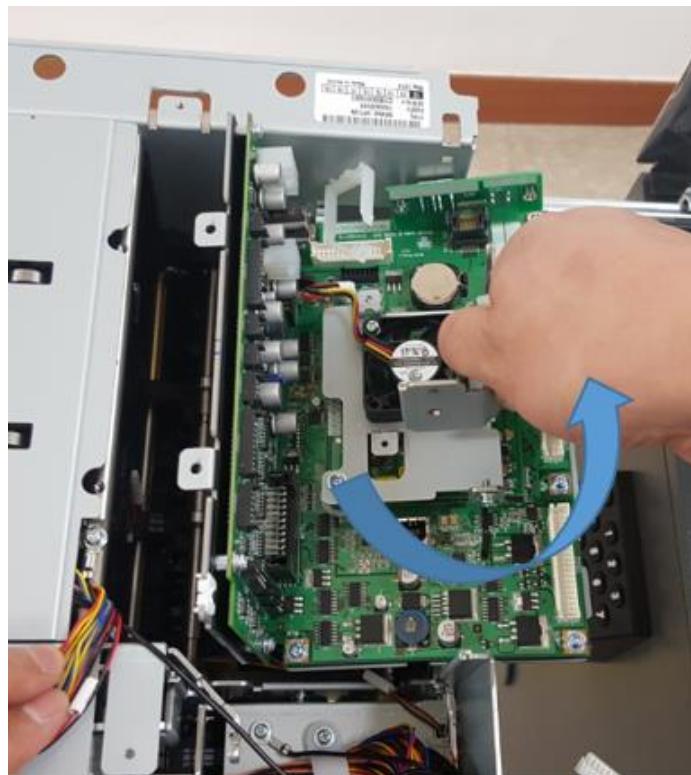
The length of FG-CABLE is changed. (260mm -> 360mm)



## Bill Recycle Module



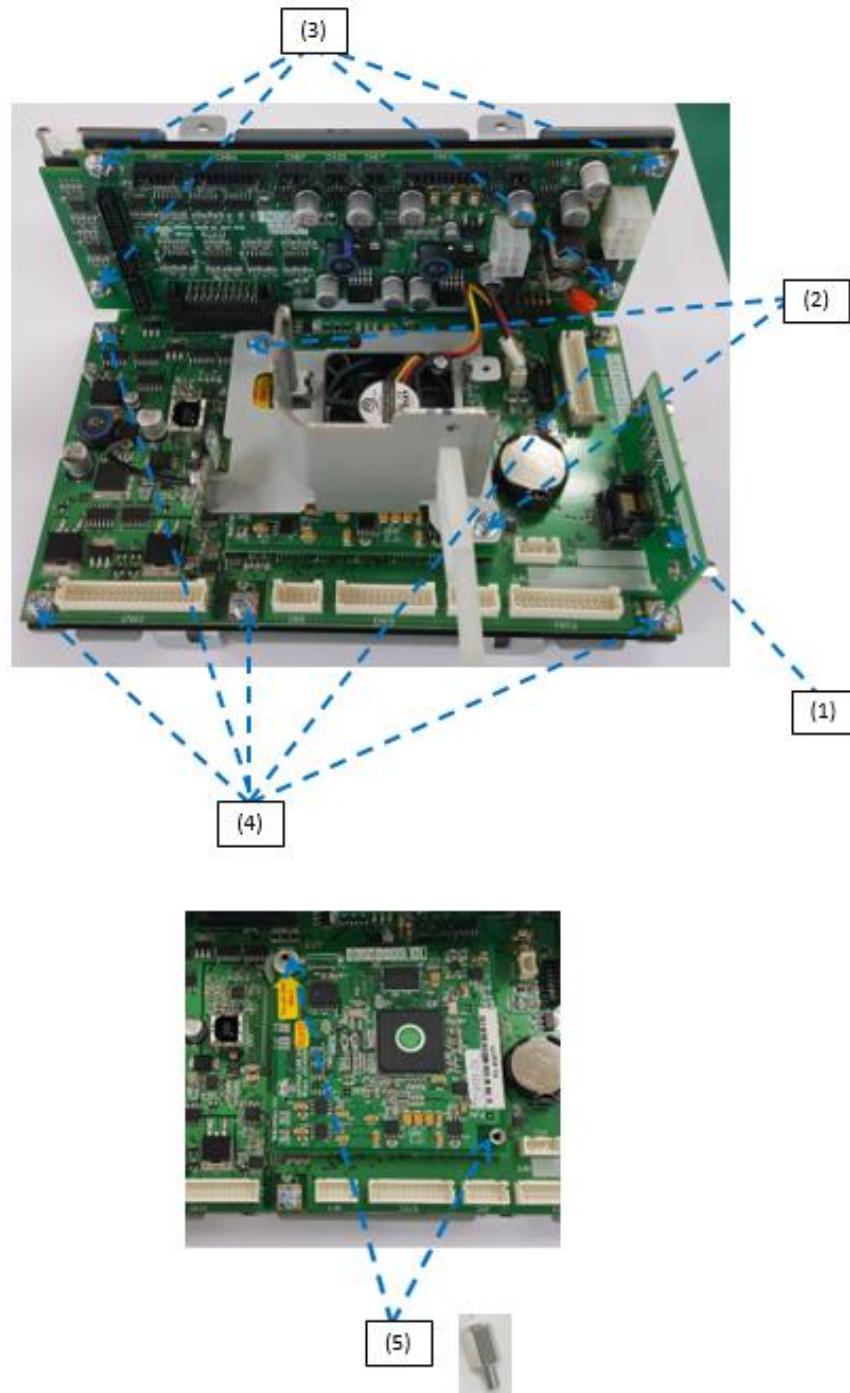
5-6. Disassemble the ASSY MAIN BOARD turning it in the arrow direction.



## Bill Recycle Module

5-7.

- (1) Disassemble the BOARD SEGMENT.
- (2) Loosen the SCREW M3x8 (2ea) fixing the FAN\_BRKT\_OPTION.
- (3) Loosen the SCREW M3x8 (4ea) fixing the MAIN ACT BOARD.
- (4) Loosen the SCREW M3x8 (5ea) fixing the MAIN I/O BOARD.
- (5) Loosen the 4890000015\_JACK POST (2ea) fixing the CORE BOARD.



# Bill Recycle Module

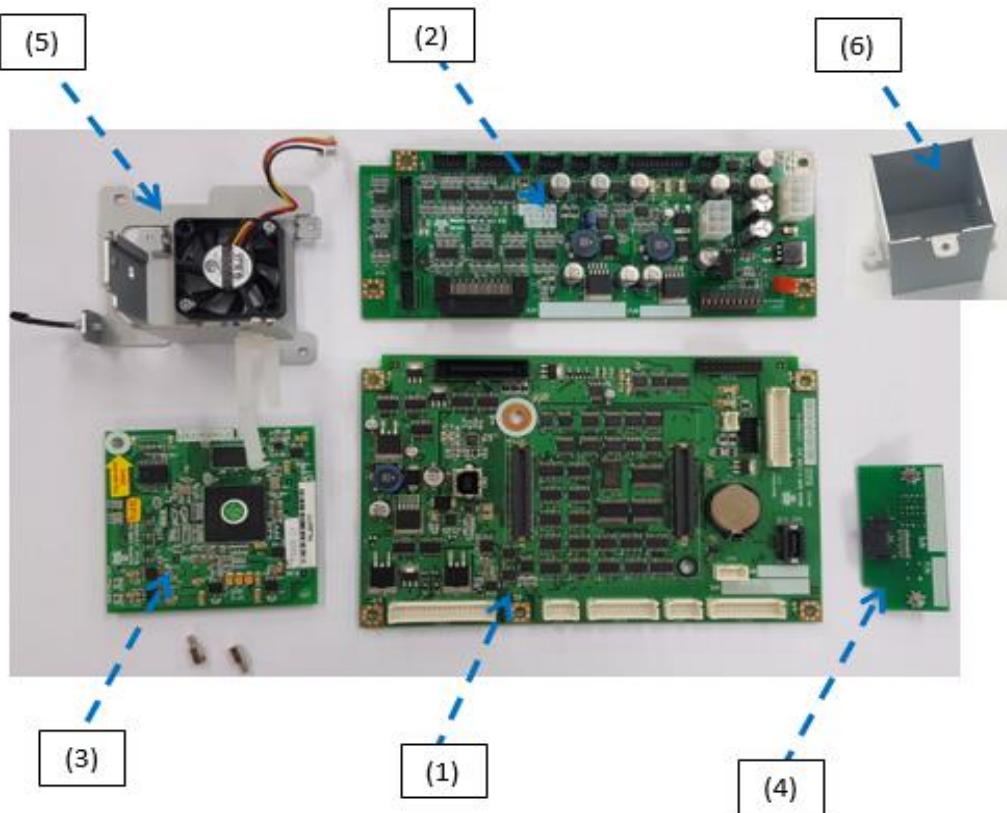
## 5-8. Component part of ASSY MAIN BOARD

- (1) MAIN\_I/O\_BOARD    (2) MAIN ACT BOARD
- (3) CORE BOARD        (4) BOARD SEGMENT
- (5) FAN BRKT OPTION+FAN    (6) BRKT AIR PATH
- (7) PLATE\_MAIN\_BOARD
- (8) SPRING\_ANTISTATIC

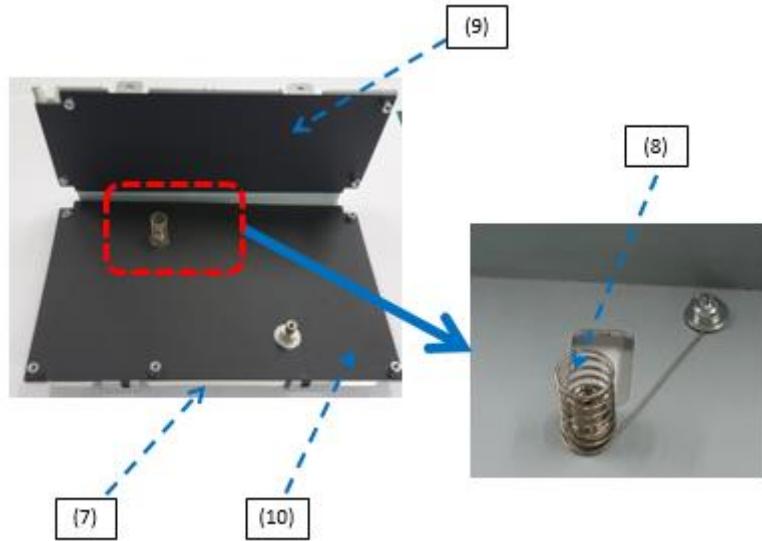
(Caution : If disassembling, be sure to assemble it because the spring acts as the USB connector's earth)

(9) ACT\_BD\_SHEET

(10) MAIN I/O BD SHEET



## Bill Recycle Module

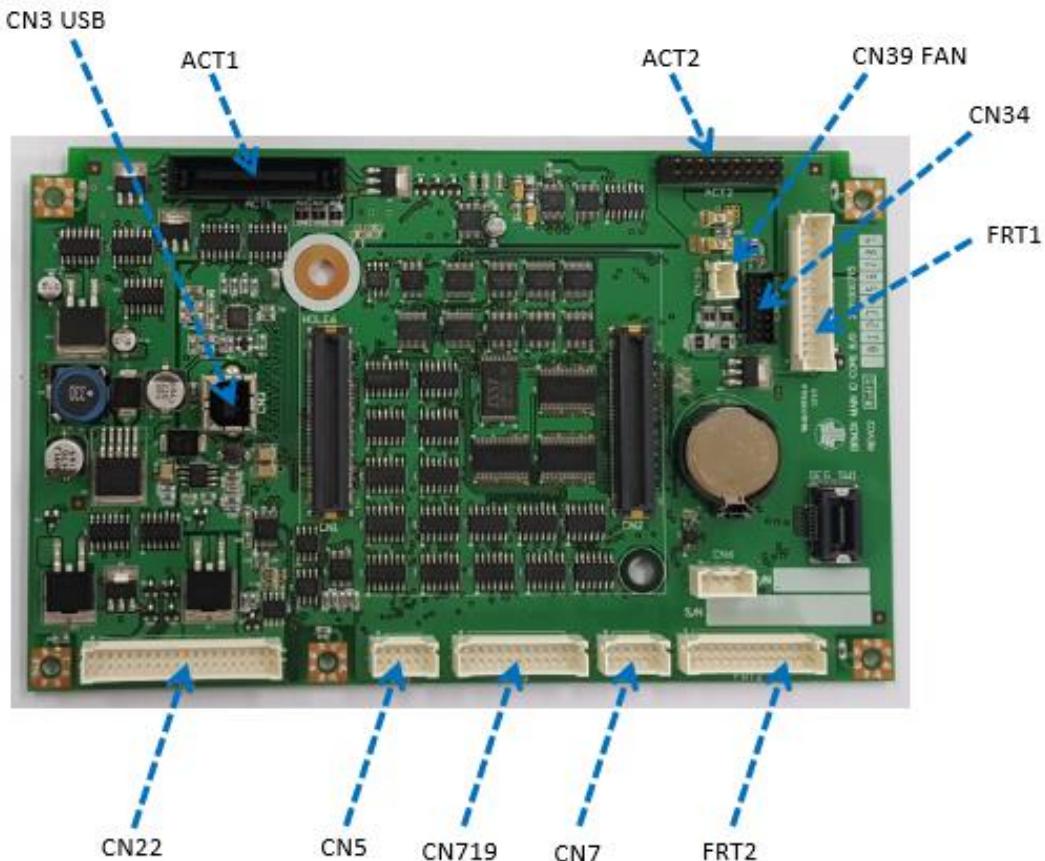


5-9. To assemble, use the reverse order of disassembling.

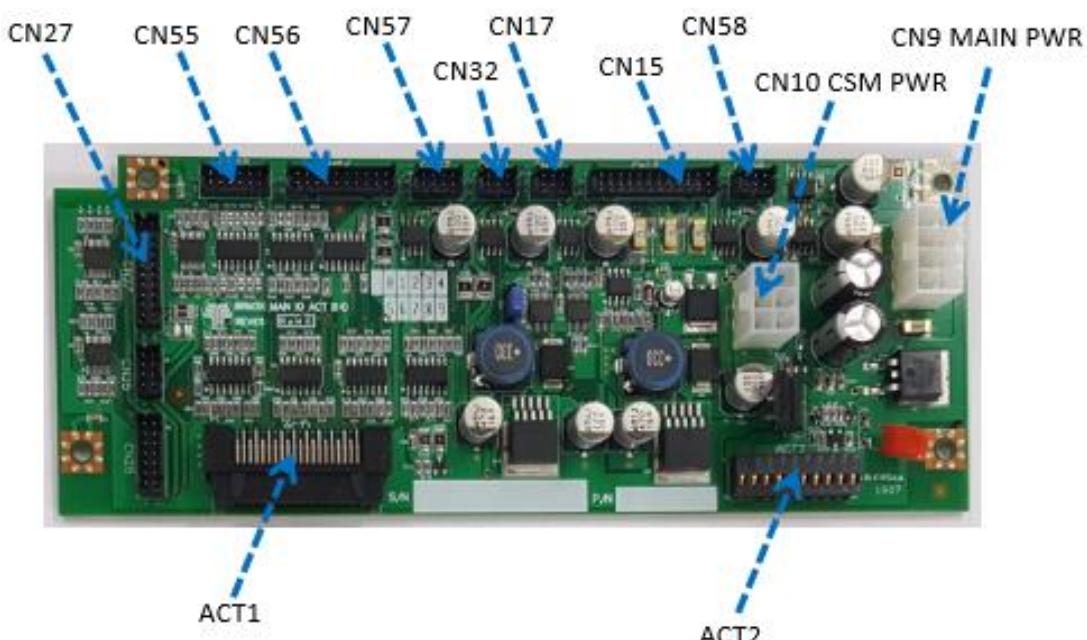
# Bill Recycle Module

## 5-10. Connector number of BOARD

### - MAIN I/O BOARD



### - MAIN ACT BOARD



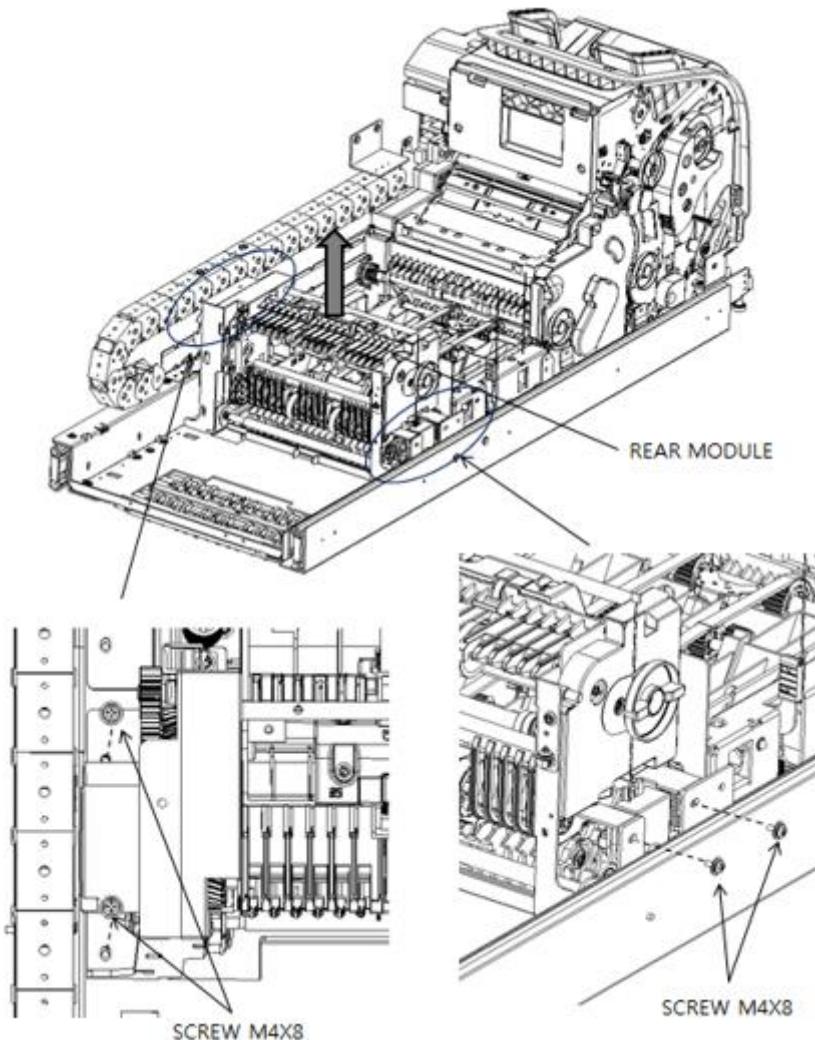
# Bill Recycle Module

## Replacing the differentiation section module

- ▶ Replacing the differentiation section module  
Refer to "Replacing the front module"

## Replacing the rear module

- ▶ Replacing the rear module
  1. Separate the CON11, CON12 connector of motor cable TM002, TM003 cable.
  2. Separate the frame ground cable from the main frame.
  3. Remove the M4x8 screw (2ea) from the left and right of rear module and demount it in the upper direction.



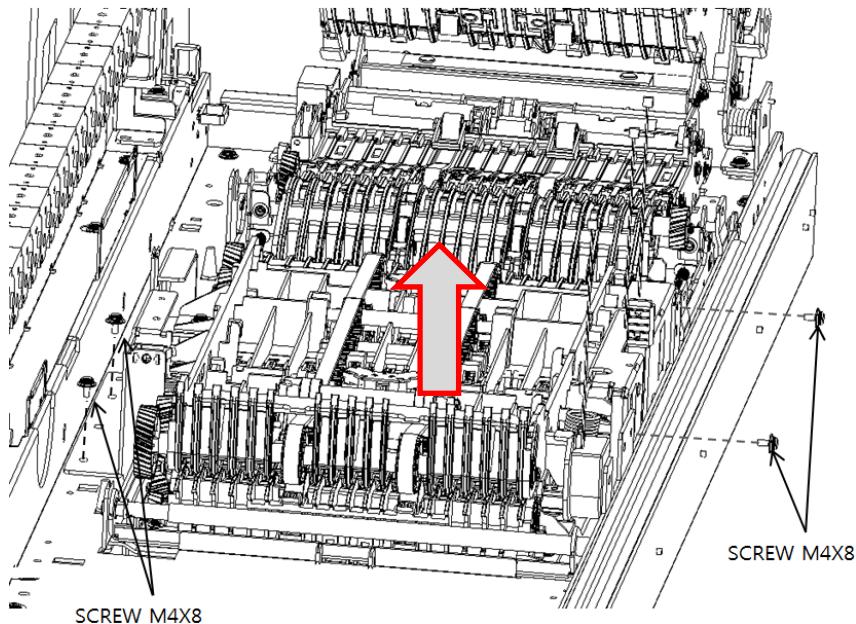
4. Use the reverse order of disassembling to assemble again.

# Bill Recycle Module

## Replacing the MID\_TOP Module

### ► Replacing the MID\_TOP Module

1. Remove the M4x8 screw (2ea) form the left and right of MID\_TOP Module and demount it upward.



2. Use the reverse order of disassembling to assemble again.

# Bill Recycle Module

## Replacing the MID BOTTOM Module

### ► Replacing the MID BOTTOM Module

1. Demount the E-RING (2ea) of the picture below.
2. Demount the SPRING (2ea)
3. Pull the MID BOTTOM Lever and open.

**<Caution!>** Be sure to hold the bottom of MID BOTTOM when pulling Open Lever and open.

4. Turn the SHAFT and demount.
5. Use the reverse order of disassembling.

