

# ***RECYCLE RIGHT***

## **PUBLIC SPACE RECYCLING BINS**

### **Operating Guidelines**





<b>RECYCLE RIGHT BINS</b>		Standard Operating Procedure (SOP)
Date: November 2021, last update on 18/11/21	Prepared by: Tommy Cheong, National University of Singapore (NUS)	National University of Singapore
Pages: 12		Verified by: Grace Gan (NEA) Ken Lee (NEA) Mindy Ong (NUS) Harry Lim (NUS)

## PURPOSE

This manual provides information on the Recycle Right bins. The bins work on a model of segregated recycling. The functional features of the bins are designed to allow users ease to recycle the right way. The bin is manufactured, packaged, labelled, and held under conditions that minimize the risk of recyclable contamination.

## SCOPE

### Recommended deployment site:

Locations where there are public facilities for bin users to **rinse their recyclables to be clean of food and liquid waste**.

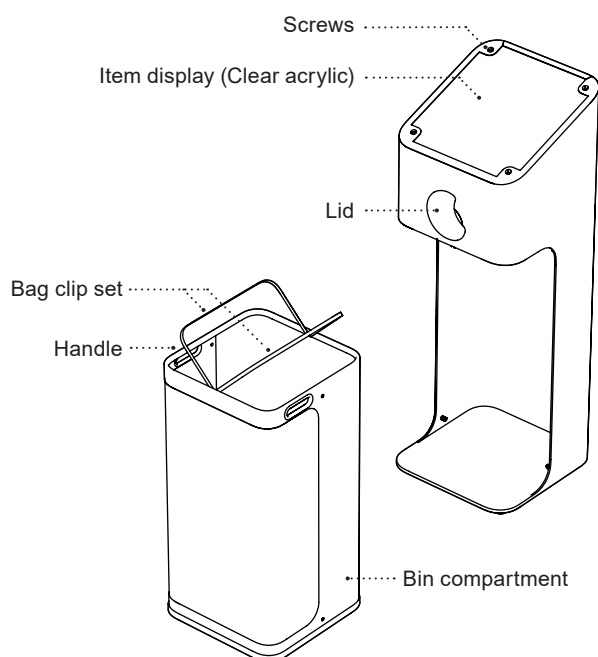
Recycle Right bins co-location references:



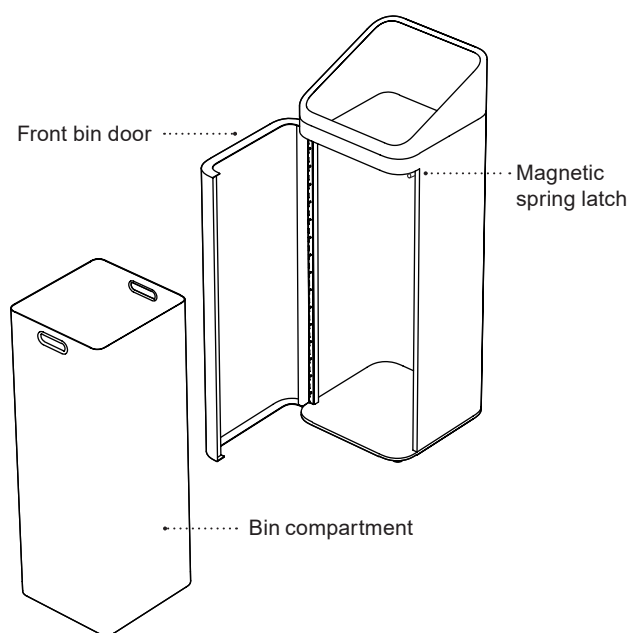
## 1. Bin components checklist

ITEM	QUANTITY	QUALITY CHECK	✓
General Waste bin	1 unit	Front bin door	
	1 unit	Magnetic spring latch	
	1 unit	Bag clip set	
	1 unit	Bin compartment	
Rinsed Bottle bin	1 unit	Item display (Clear acrylic)	
	4 unit	Screws for item display	
	1 unit	Bag clip set	
	1 unit	Bin compartment	
	1 unit	Sliding lid	
Rinsed Cans bin	1 unit	Item display (Clear acrylic)	
	1 unit	Screws for item display	
	1 unit	Bag clip set	
	1 unit	Bin compartment	
	1 unit	Sliding lid	
Notes & Cardboard bin	1 unit	Item display (Clear acrylic)	
	1 unit	Screws for item display	
	1 unit	Bag clip set	
	1 unit	Bin compartment	
	1 unit	Letter box lid	

### Recycling bin



### General waste bin





# RECYCLE RIGHT BIN DELOYMENT

## 2. Bin arrangement

- a. General Waste (Grey)
- b. Rinsed Bottles (Green)
- c. Rinsed Cans (Yellow)
- d. Notes & Cardboard (Blue)



The Recycle Right bins are to be arranged in the sequence (a, b, c, d).

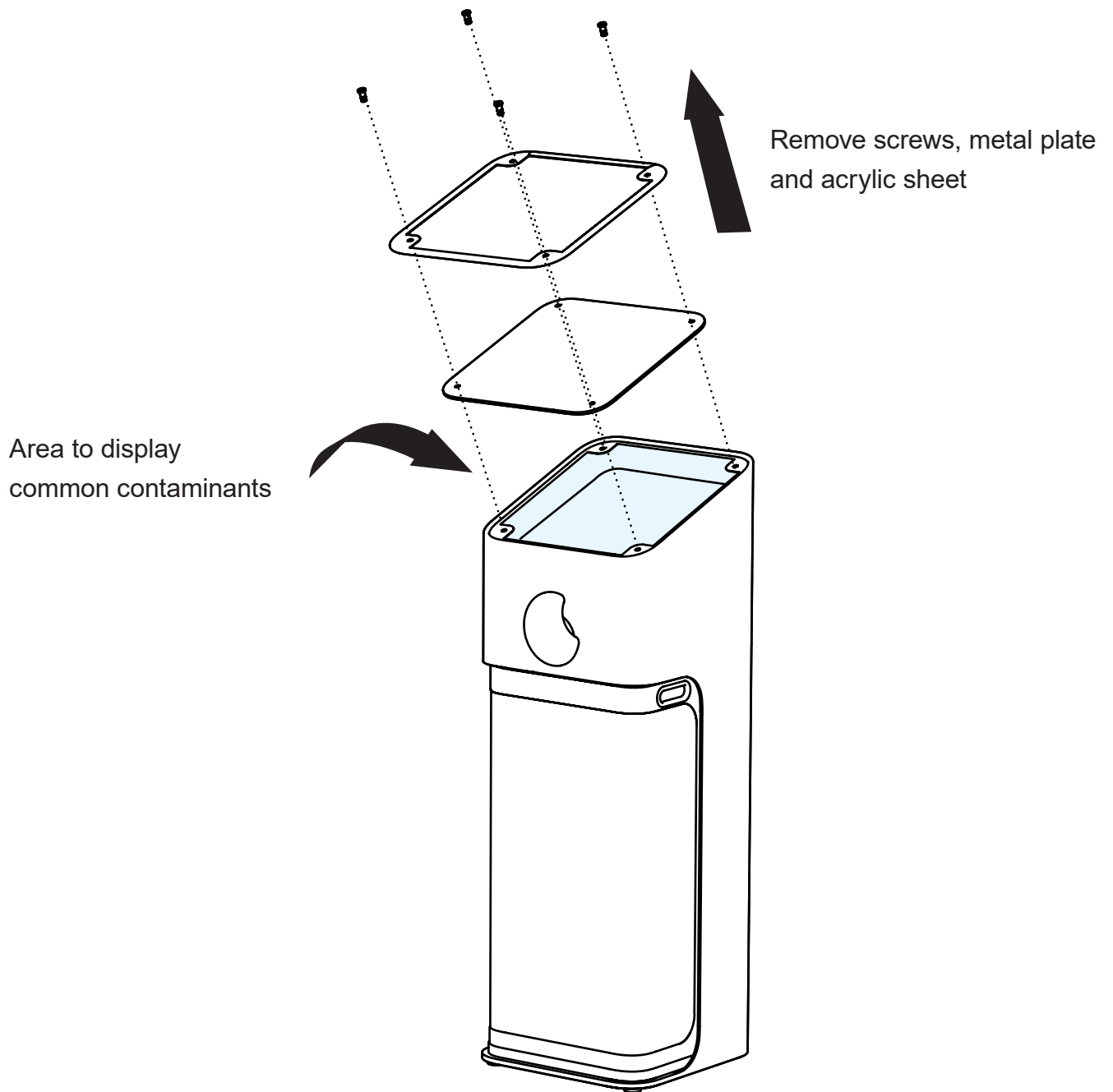
In cases where one of the recyclable bins are not present or required (e.g. Rinsed Cans), the sequence should be followed: (a, b, d)

The General waste bin and Plastic bottles bin **MUST** be side by side.<sup>1</sup>

<sup>1</sup> The reduction in contamination is dependent on the close access to the general waste bin when users are disposing their waste. Pilot studies has shown that there has been an increase in contamination when the plastic bottles bin was not placed together with the General waste bin.

### 3. Items display for recycling bins (How to Label and Display Contaminants)

#### a. Set up Process



Unscrew bolts to  
open display



Preparation of display items



Ready to display items

- b. Reference list of common contaminants  
(Contaminants to be displayed for each type of recycling bin)



#### Rinsed bottles bin (Plastics)

- Bubble tea cups with straws
- Paper coffee cups
- Small plastic bag\*
- Metal drinking can
- Plastic disposable cup\*
- Plastic bags with food containers\*



#### Rinsed cans bin (Metal cans)

- Plastic snack bag
- Plastic bottle\*
- Tissue paper
- Receipts



#### Notes & cardboard bin (Dry paper)

- Paper Food bag
- Small Plastic bag
- Tissue paper
- Receipts

- c. Preparation of display items

- Use only items that are rinsed and free of food/liquid waste before repurposing for the Items Display.
- Highlight key items that have been contaminating the specific material type for each recycling bins (e.g. Bubble Tea cups used for 'Rinsed Bottle Bin' display, Paper food packaging, 'used' tissue paper for 'Notes & Cardboard Bin' display) at the specific public space location, using these wrong items as educational materials to correct users' recycling practices.

**\*DIY Option (Contaminated Appearance):** You can include some scrap tissue paper, other unrecyclable items or mix acrylic paint liquid to simulate an unclean contaminant filled with some unidentifiable items commonly found in recycling bins.(e.g. a Bubble tea cup with straw and crumpled tissue paper left inside with the plastic holder still attached to the cup)



**DO NOT** use any food or liquid ingredients for good hygiene and to prevent pests from entering the display.

**DO NOT** display the same set of items for each recycling bin to allow users to differentiate the bins. Refer to the reference list (3b.)



- d. Ensure all items are well-spaced out from each other in the display.
  - i. **DO NOT** overlap items. Suggest to keep it to 3 items to avoid overcrowding.
  - ii. Operators can change the items from time to time. Keep up to date with what bin users are recycling wrongly from what is collected and recycled.





- e. Items needed to label contaminants for display set up:



- i. Remove/hide any **branding** on the items displayed



- g. Cut 2 strips of red tape to form a **red cross (X)** to be marked on the centre of the contaminant



- h. Apply double-sided tape:  
**3M Mounting Tape**  
(Long lasting in preventing items from sliding off the angled display)



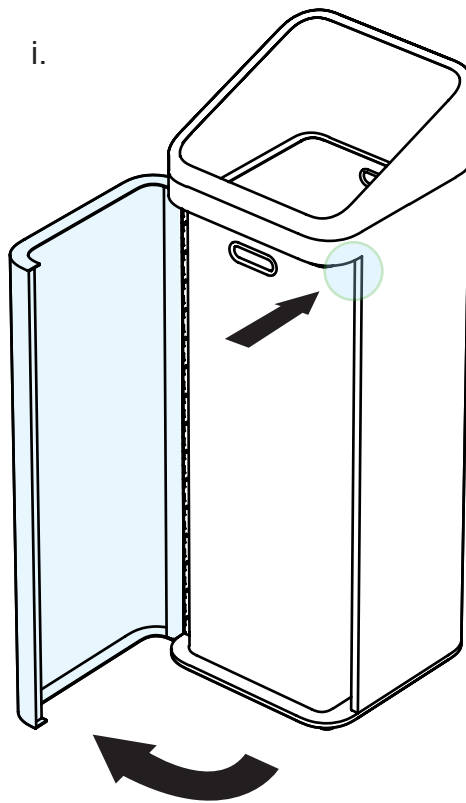
- i. Contaminant ready for Display



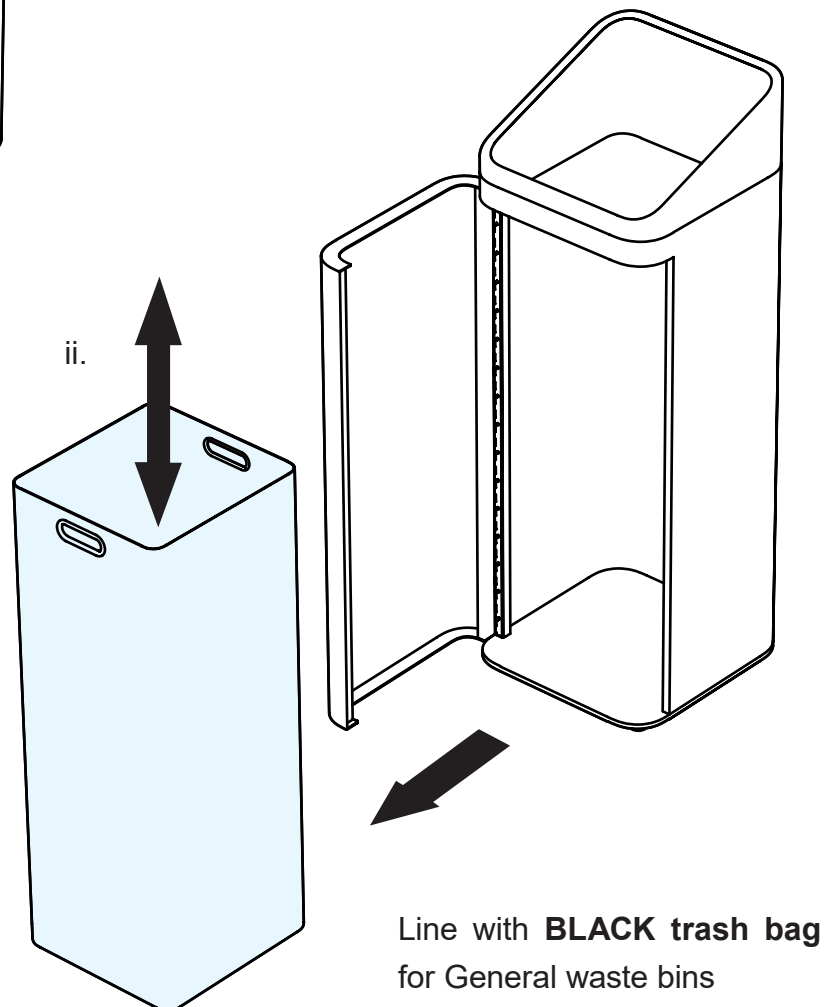
## 4. Bin Maintenance

### a. General waste bin

- i. Push the magnetic spring latch on the right top corner of the bin to open the front bin door.
- ii. Remove inner bin compartment from the main housing and line with black trash bags (Opaque).

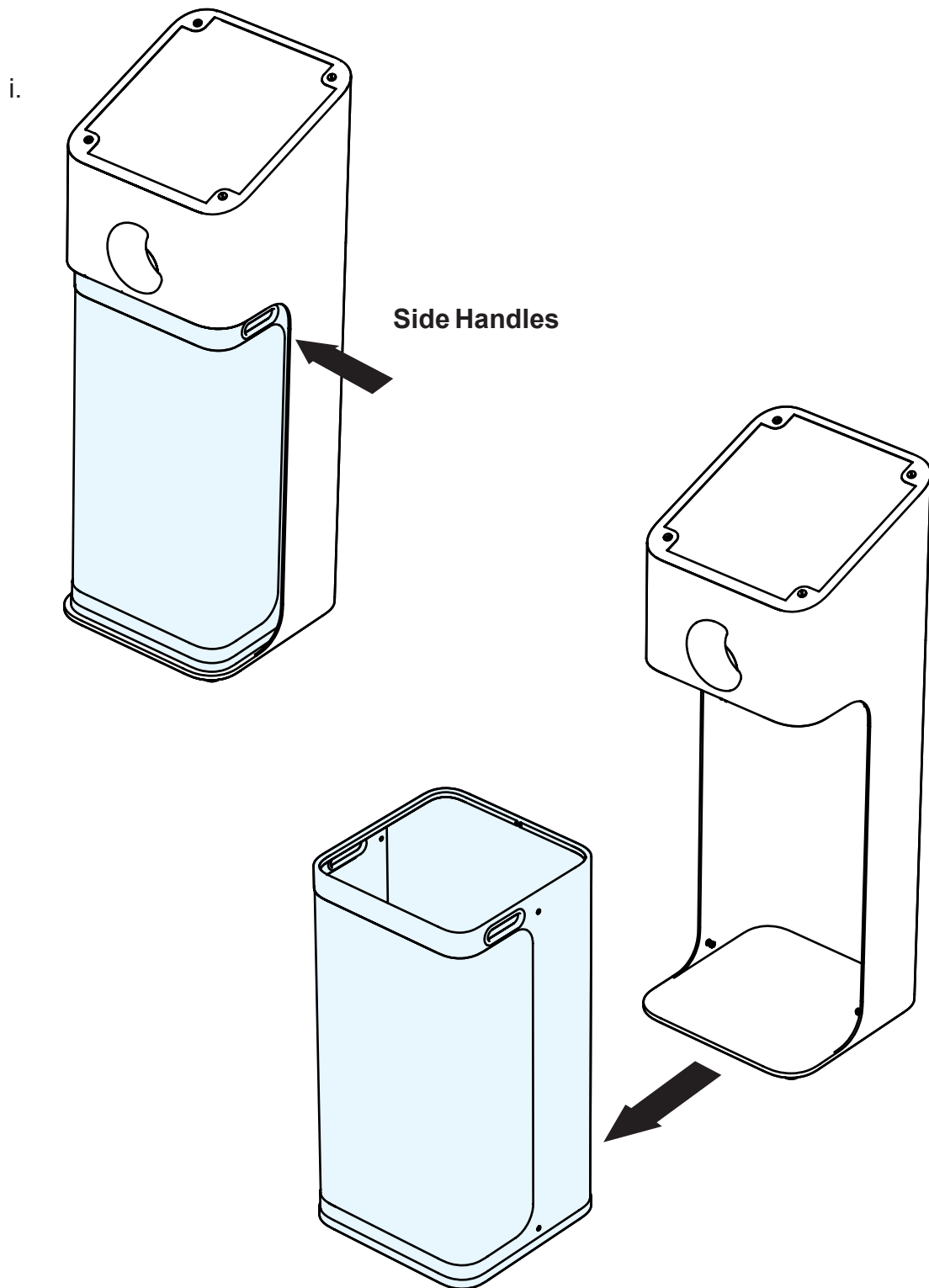


Push open  
Magnetic spring latch



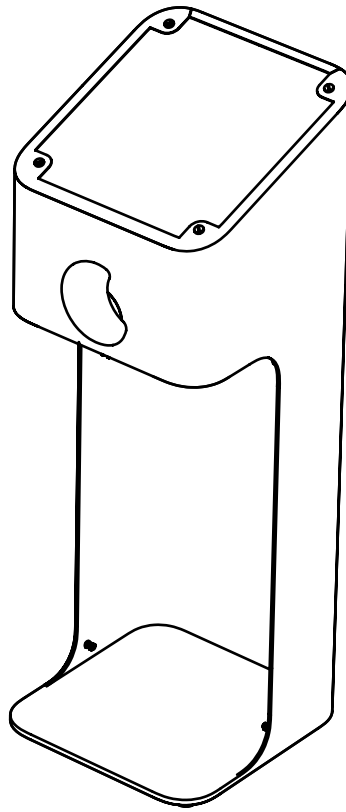
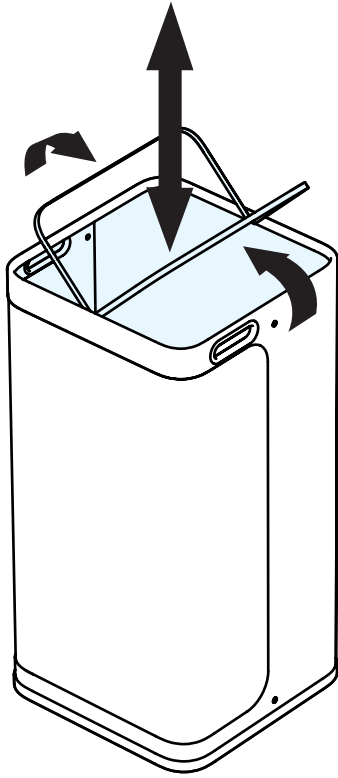
b. Recycling bins

- i. Use side handles to pull out the bin compartment
- ii. Loosen the bag clips to replace used and filled trash bags.
- iii. Push bin compartment back with new lined trash bags.



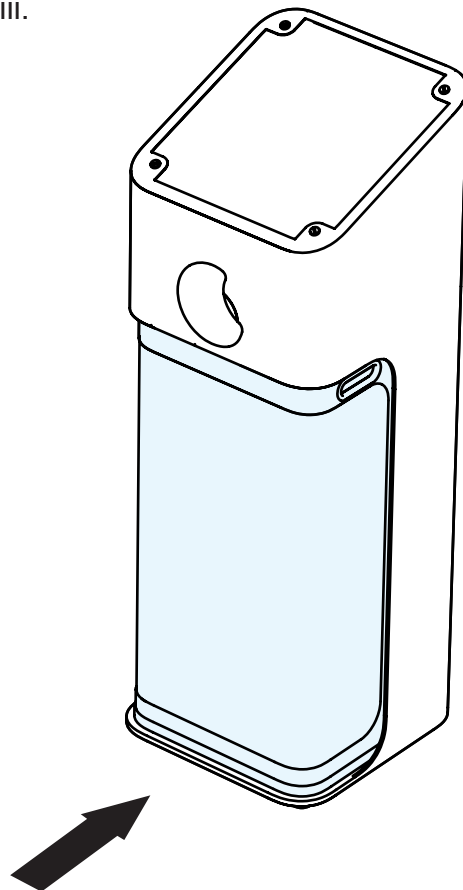


ii.



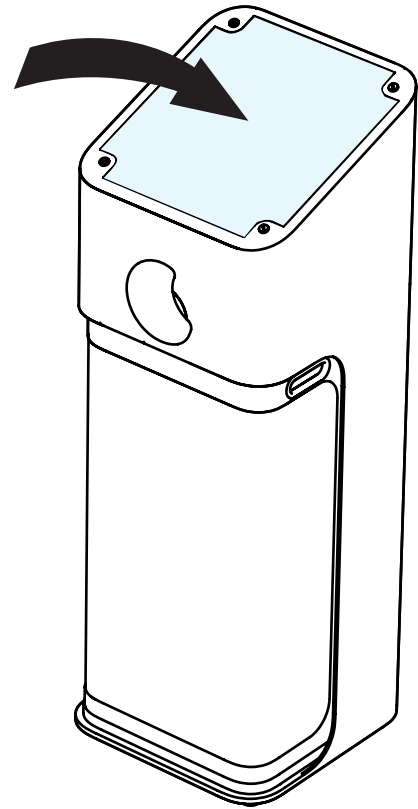
Replace **trash bag** and secure trash bag with bag clip

iii.



- iv. Wipe the display panels with a dry cloth every 2 weeks - to clean off dust and dirt.

**DO NOT** use wet cloth to clean the surface as it will rust the metal part of the bin.



## 5. Transparent Plastic bags (for recycling bins)

Bag Dimensions: 0.08mm x 48 inch x 36 inch

Material: Transparent LDPE (Low density polyethylene)

Suggested bag supplier: Unipack Pte. Ltd

[https://www.unipack.sg/index.php?route=product/product&product\\_id=282](https://www.unipack.sg/index.php?route=product/product&product_id=282)