

EPA  
Establishment#  
100231-CHN-001



**SURGICALLY CLEAN AIR™**

**A DE™2.0 (SCA5100C)**

## **OPERATION MANUAL**

Read the manual thoroughly before  
operation and retain for future reference.



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## SAFETY PRECAUTIONS 1

Be sure to follow all precautions below:

### Running Environment Cautions

- Use only a 120-volt outlet with grounding wire receptacle.
- Do not put it in rooms with high heat, damp or wet places.
- Best working condition is 10-40°C.
- Level the unit well, never use unit when it is tilted or laying down.
- To reduce the risk of electric shock, this equipment has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type power outlet. If the plug does not fit into the outlet, contact qualified personnel to install the proper outlet. Do not alter the plug in any way.

### Unit Operation

- Do not insert fingers or foreign objects into the intake or air outlet.
- Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
- Do not block the air intake and air outlet. Never insert small things into the air intake /outlet.
- Do not use the air purifier if the power cord or plug is damaged or the connection to the wall outlet is loose.
- When removing the power plug, always hold the plug and never pull by the cord.
- Do not use the unit near or on hot objects, such as range or where it may be exposed to steam.
- Stop the unit and unplug the power when moving or maintenance. Always hold the handles on the side of the unit when moving it.
- To avoid causing fire and/or shock do not attempt to disassemble the unit - only certified technicians should do this.
- Do not wash or reuse the HEPA-Rx filter and the Activated carbon filter.



## WARNING

The internal UV-C+ lamp contains a small amount of mercury which is contained inside the lamp unless broken. Mercury and mercury compounds are known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## SAFETY PRECAUTIONS 2

This product complies with the maximum allowable concentration of ozone of 0.050 parts per million by volume (ppmv) in a 24-hour period. The Health Canada Guideline 2010 recommends that the maximum exposure limit, based on an averaging time of 8 hours, is 0.020 ppmv or less when tested in a sealed, controlled room approximately 30 m<sup>3</sup>.

Ce produit est conforme avec la concentration maximale permise d'ozone de 0,050 parties par million par volume (ppmv) pendant une période de 24 heures. La Ligne directrice (2010) de Santé Canada recommande un niveau au maximum d'exposition, basé sur un moyen de 8 heures, soit 0,020 ppmv ou moins dans une chambre de teste étanchée et contrôlée de 30 m<sup>3</sup>.

### INTENDED USE

The JADE™2.0 Air Purifier is intended to remove particles and microorganisms from the air.

### UTILISATION PREVUE

Le purificateur d'air JADE™2.0 est destiné à éliminer les particules et les micro-organismes de l'air.

### DIRECTIONS FOR USE

Plug the power cord in and you will hear a "Beep". The small, inner circle will turn green - this indicates the air purifier is in standby mode. Use your hand to wave over the sensor, this waving motion turns the unit on & off, and can also adjust the fan speed.

### MODE D'EMPLOI

Branchez le cordon d'alimentation et vous entendrez un (< bip ». Le petit cercle intérieur deviendra vert - ce indique que le purificateur d'air est en mode veille. Utilisez votre main pour agiter le capteur, ce mouvement d'ondulation allume et éteint l'unité et peut également ajuster la vitesse du ventilateur.

### DISPOSAL INSTRUCTIONS

Dispose of filters and UV-C+ lamps according to local regulations based on location of use (e.g. medical waste if used in a medical setting such as dental clinics, laboratories, etc.).

### INSTRUCTIONS D'ELIMINATION

Éliminez les filtres conformément aux réglementations locales en fonction du lieu.

## SAFETY PRECAUTIONS 3



**WARNING** - The internal UV-C lamp contains a small amount of mercury which is contained inside the bulb unless broken. Mercury and mercury compounds are known to the State of California to cause birth defects or other reproductive harm. For more information, go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).

The following safety warnings as per regulatory requirements of PCPA (Pest Control Products Act) in Canada: Avertissements de securite selon les exigences reglementaires de la PCPA (Loi sur les produits antiparasitaires) au Canada.

### PRECAUTIONS

- READ THE LABEL AND ANY OPERATING MANUAL BEFORE USING
- KEEP OUT OF THE REACH OF CHILDREN
- WARNING - UV radiation only emitted internally in this device.
- Unintended use of the device, or damage to the housing, may result in exposure to ultraviolet radiation.
- Ultraviolet radiation may cause eye and skin irritation.
- Avoid exposing eyes and skin to ultraviolet radiation.
- The use of this device is a supplement to and not a substitute for standard infection control practices; users must continue to follow all current infection control practices, including those practices related to cleaning and disinfection of environmental surfaces.

### FIRST AID INSTRUCTIONS

Clean the injury using soap and warm water, apply antibiotic ointment and a bandage, and watch for signs of infection.

### INSTRUCTIONS DE PREMIERS SOINS

Nettoyez la blessure avec du savon et de l'eau tiede, appliquez une pommade antibiotique et un pansement et surveillez les signes d'infection.

## SAFETY PRECAUTIONS 4

### FCC Warning statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

### ISED Warning statements

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

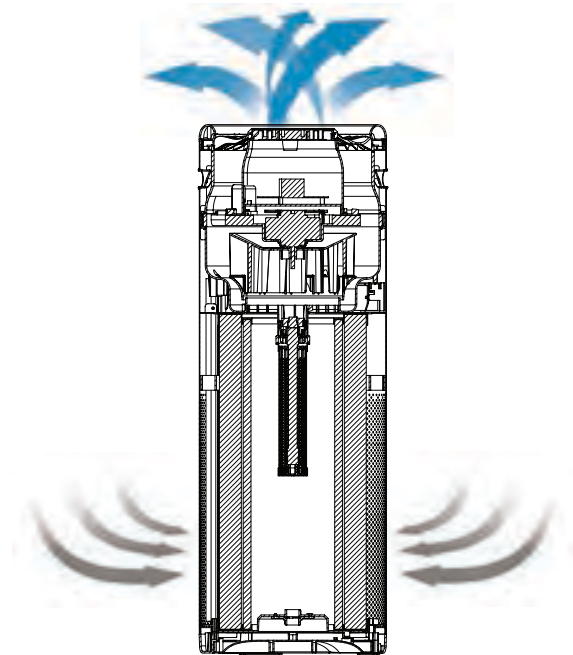
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## HOW IT WORKS

When the DC fan motor is running, the indoor air will be drawn through the bottom of the unit. The air will then pass through the HEPA-Rx Filter, the Activated Carbon Filter, the UV-C+ chamber. The purified air is then released through the outlet on the top of the unit. The Revitalizing Negative Ion Generators near the air outlet releases revitalizing negative ions into the air to refresh the air.

The air is purified in five stages:

1. PRE-FILTER STAGE
2. PROPRIETARY HEPA-Rx FILTER
3. ACTIVATED CARBON FILTER
4. UV-C+ LAMP
5. REVITALIZING NEGATIVE ION CHAMBER



## FEATURES AND SPECIFICATIONS

The unit has five stages of filtration. A Pre Filter, HEPA-Rx Filter, Activated Carbon Filter, UV-C+ lamp, and two Revitalizing Negative Ion Generators.

### Touch-free hand gesture operation

The JADE™2.0 can be operated completely with the wave of your hand, making it suitable in medical settings to avoid cross contamination.

### Filters and UV-C+ Lamp Replacement Indicator Lights

The indicator lights tell you when to replace the HEPA-Rx filter, the Activated carbon filter or the UV-C+ lamp.

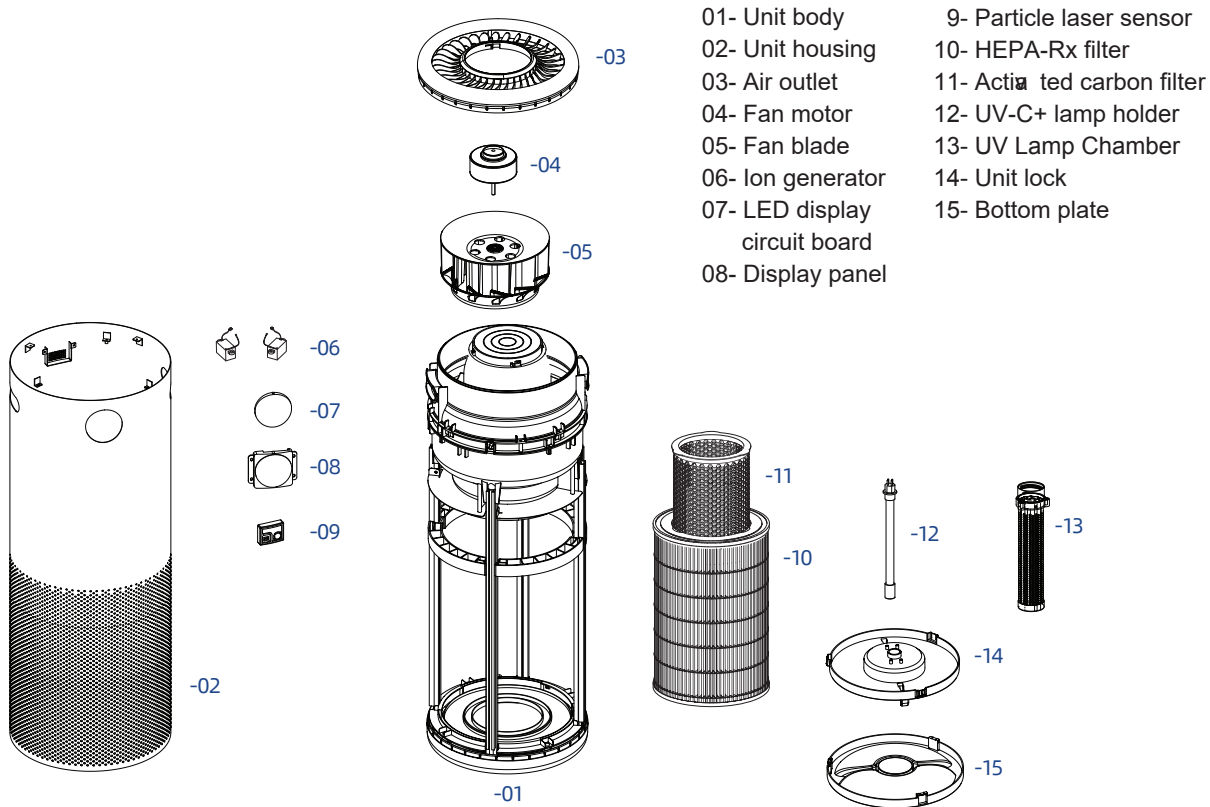
### Safety and Easy Maintenance

The unit is also equipped with a safety interlock switch that will turn the power off if the bottom plate is opened. When the filters need to be replaced, simply open the bottom plate and pull out the filters and put the new ones in. No screws, hooks or tools are required.

Model No.	JADE™2.0 (SCA5100C)
Power Requirement	120V, 60Hz
Rated Power	72W, 1A
Negative Ion	2x3x10 <sup>6</sup> /cm <sup>3</sup>
UV Lamp	10W
Dimensions	Φ31.6cm x H89.5cm (Φ12.4 inches x H35.2 inches )
Weight	14.5kg (31.9 pounds)



# PART NAME



## INSTALLATION

1. Power supply condition: Use only a 120-Volt outlet with grounding wire receptacle.
2. Operational conditions: Temperature: 0°C~40°C; Relative humidity: <75%.
3. The unit should be installed in an indoor area with less personnel activities, and the unit should be set up against the wall.
4. This product is suitable for indoor air disinfection in human environment. It is strictly prohibited to use in flammable, explosive and other gas environment.

### Before operation

1. Turn unit upside down - put towel or any soft pad on the ground to avoid damage to the unit when you turn it upside down.
2. Open unit from the bottom - Turn counterclockwise to open bottom.
3. After the plastic bottom is removed, take off the unit lock.
4. Take out the HEPA-Rx filter and the activated carbon filter to remove the plastic cover.
5. Put the HEPA-Rx filter and activated carbon filter back into unit. Align the blue arrow with blue arrow, turn the unit lock clockwise until the blue arrow is aligned with the letter C on the unit bottom.
6. Install the bottom plate by rotating clockwise the same with the Step 5.



#### Caution

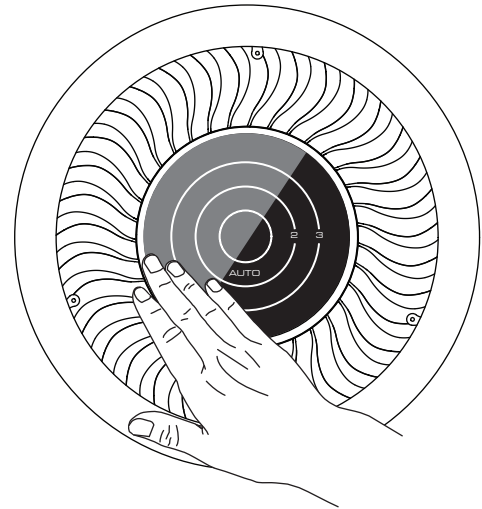
Prior to using unit for the first time, you must remove the plastic bag from the HEPA and activated carbon filter inside the unit.

## OPERATION 1

### Hand Gesture Operation

Plug the power cord in, the inner circle will turn blue, indicating the air purifier is in standby mode. Use your hand to wave over the sensor, this waving motion turns the unit on & off, and can also adjust the fan speed.

Wave	Circles on the sensor panel	Speed
1 <sup>st</sup> time	Blue circle will turn white	L
2 <sup>nd</sup> time	Second circle will light up	M
3 <sup>rd</sup> time	Third circle will light up	H
4 <sup>th</sup> time	All the circles light up white	Turbo
5 <sup>th</sup> time	"AUTO" indicator will light up	Auto
6 <sup>th</sup> time	Inner circle turns back to blue	Standby



### LOCK/ UNLOCK

Hover & hold your hand over the sensor for 2 seconds and this will lock the unit at the desired speed. This will prevent accidental or unwanted speed changes. To unlock this feature, hover & hold your hand over the sensor again for 2 seconds.

## OPERATION 2

### Button Operation



Control Display Panel



### NOTE

If the unit is not operated for one minute, the UV-C+ lamp button and NIGHT button light will go off except the POWER button, entering the screensaver mode.

### 1 POWER Button

- When the unit is plugged into an electrical outlet, the display panel shows the indoor PM2.5 concentration ( $\mu\text{g}/\text{m}^3$ ), temperature and humidity.

Press the button, turns the unit On and Off.

- Hold the button for 3 seconds to reset the filters indicator light.

**2 TIMER Button:** Press this button to select the time for operation.

The timer setting switches as shown: 2H -- 4H -- 6H -- 8H -- 10H -- 12H -- cancel timing.

**3 UV-C+ LAMP Button:** When the button is pressed, it will turn off the UV-C+ lamps, pressing again will turn on the UV-C+ light.

**4 NEG.ION Button:** Turns Negative Ions on and off.

**5 NIGHT Button:** When pressed, all the indicator lights on the display panel will disappear.

**6 LOCK Indicator Light:** When the unit is locked the indicator light is on (See page12).

### 7 Pollutant level display

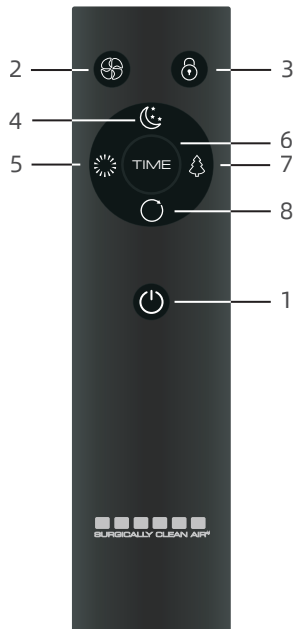
The different colors indicate the air quality level:

Blue=Good, Orange=Moderate, Red=Poor

Indicator Color	PM2.5	TVOC Level	Speed
Blue	$\leq 35 \mu\text{g}/\text{m}^3$	■ ~ ■■	L
Orange	$36 \sim 150 \mu\text{g}/\text{m}^3$	■■■ ~ ■■■■	M
Red	$> 150 \mu\text{g}/\text{m}^3$		H

## OPERATION 3

### Remote Control Operation



RF Remote Control



#### Before using the RF remote control

1. As soon as the unit is plugged in, press and hold the POWER button on the remote control for 5 seconds.
2. The indicator light will start flashing and this means the configuration is successful. The unit can now be operated with the remote control.

- 1 POWER Button:** The unit will start operating when the POWER button is pressed. Pressing the button again will stop operation.
- 2 SPEED Button:** The fan speed can be switched among L- M- H- Turbo- AUTO settings.
- 3 LOCK Button:** When pressed, all the operation will lock at the desired speed except the NIGHT button.
- 4 NIGHT Button:** When pressed, all the indicator lights on the display panel will go out.
- 5 UV-C+ LAMP Button:** Turns UV lights on and off.
- 6 TIMER Button:** The set time switches every time the button is pressed as shown below: 2H - 4H - 6H - 8H - 10H - 12H - Cancel.
- 7 NEG. ION Button:** Turns negative ions on and off.
- 8 RESET Button:** Pressing the reset button 3 times will reset the replacement indicator lights.

## CARE AND MAINTENANCE 1

To maintain optimum performance of this air purifier, the HEPA-Rx Filter, the Activated Carbon Filter and the UV-C+ Lamp need to be replaced when the indicator lights are flashing. If the device is operating in an atmosphere with heavy dust, particulate or pet dander, you may need to periodically vacuum the pre filters for optimal performance.

1. **Make sure all the filters are installed properly before operating the unit.**
2. **When conducting maintenance on the unit, be sure to unplug the power cord.**
3. **Never handle the plug with wet hands. If so, electrical shock and bodily injury may occur as a result.**

### Filters Life

1. HEPA-Rx Filter needs to be replaced once a year (running 24/7).
2. Activated Carbon Filter needs to be replaced once every 6 months (running 24/7).
3. UV-C+ Lamp needs to be replaced once a year (running 24/7).

### Main Unit

Wipe with a dry, soft cloth for stubborn stains or dirt. Do not use **volatile fluids, benzene, paint thinner or polishing powder** as this may damage the surface.

Do not use detergents as detergent ingredients may also damage the unit. Keep the unit away from water.

### Warning

1. Turn off and unplug the power cord before cleaning the body, air outlet or opening the bottom to avoid electric shock
2. Turn off and unplug the power cord before replacement of the HEPA-Rx Filter, Activated Carbon Filter and the UV-C+ Lamp or unit maintenance. If the power cord is damaged, it must be replaced by the service center or a similarly qualified person.

## CARE AND MAINTENANCE 2

### Replacing the HEPA-Rx filter

When the 3<sup>rd</sup> circle on the sensor plate flashes, the HEPA-Rx filter needs to be replaced.

1. Stop the operation and unplug the unit.
2. Open the bottom plate, take off the unit lock
3. Take out the used HEPA-Rx filter and replace with a new one.
4. After replacing the HEPA-Rx filter, hold the POWER button to reset the time for the HEPA-Rx filter.

### Replacing the Activated Carbon Filter

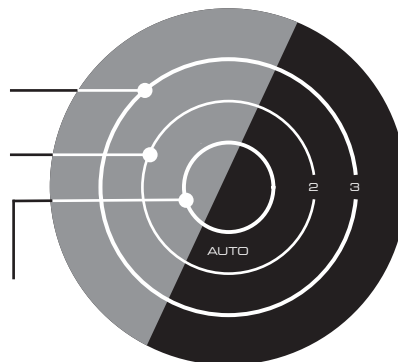
When the 2<sup>nd</sup> circle on the sensor plate flashes, the activated carbon filter needs to be replaced.

1. Stop the operation and unplug the unit.
2. Open the bottom plate and take off the unit lock
3. Take out the used activated carbon filter and replace with a new one.
4. Operate the unit, press the POWER button for 3 seconds to reset the life time.

The 3<sup>rd</sup> circle flashes, replace the HEPA-Rx filter.

The 2<sup>nd</sup> circle flashes, replace the activated carbon filter.

The inner circle flashes, replace the UV-C+ lamp.



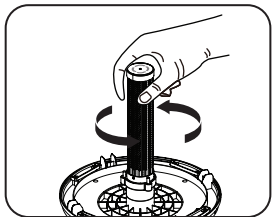
Schematic diagram of sensor plate panel on top of the unit. After replacing the filters and UV-C+ lamp, hold the POWER button to reset the indicator light.

## CARE AND MAINTENANCE 3

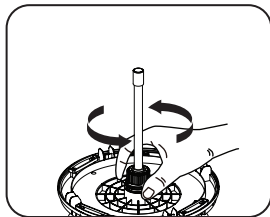
### Replacing the UV-C+ Lamp

When the inner circle on the sensor plate flashes, the UV-C+ lamp needs to be replaced (See page16).

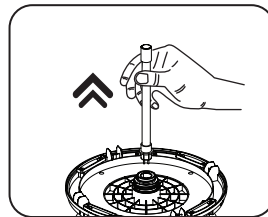
1. Stop the operation and unplug the unit.
2. Open the bottom plate and the unit lock take out all filters. Replace UV-C+ lamp, as shown below:



1. Take out all filters, unscrew the UV Lamp Chamber by turning it counterclockwise.



2. Unscrew the UV lamp holder by turning it counterclockwise.



3. Take out the UV-C+ lamp upward, replace the new UV lamp

3. Operate the unit, press the POWER button for 3 seconds to reset the indicator light.

### Warning

- DO NOT reuse or clean the HEPA-Rx filter and the Activated carbon filter.
- DO NOT clean the HEPA-Rx filter, the Activated carbon filter and any other parts with liquid, especially alcohol, gasoline, paint thinner, etc. It may cause fire!
- Never look directly at UV-C+ lamp. Direct exposure to the light can cause temporary or chronic damage to your eyesight, or even blindness.



## TROUBLESHOOTING

Most service problems that appear to be major can often be resolved easily. You can be your own troubleshooter by reviewing the following guide. All other major servicing should be done by a Surgically Clean Air authorized service center.

<i>Case</i>	<i>What to check</i>	<i>Measure</i>
The unit does not operate	Power failure? Power plug disconnected? Bottom plate or interlock switch failure?	Check other electrical appliances. Make sure plug is fully inserted. The unit does not operate when the bottom plate is detached. Install properly. Check interlock switch.
When functions do not work properly	There is too much dust on the HEPA-Rx filter or Activated carbon filter?	Replace the HEPA-Rx filter or the Activated carbon filter.

UV-C+ lamps should only be purchased from Surgically Clean Air or an authorized dealer at Surgically Clean Air. This will ensure that you are receiving UV-C+ lamp that do not generate ozone. Many after-market sellers are selling ozone-generating UV-C+ lamp.

TO ORDER FILTERS OR UV-C+ LAMPS -  
[www.surgicallycleanair.com](http://www.surgicallycleanair.com) MODEL: A DE™2.0 (SCA5100C)



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