



CAUTION: Read manual carefully for proper procedures and operation.

### Congratulations

on your purchase of a CASPR Technologies enhanced air and surface disinfection system. This unit is designed to be mounted into any vehicle. Please read and follow all safety warnings and service procedures outlined in this manual. Use only genuine CASPR Technologies replacement parts available from your CASPR Technologies Distributor.

*If you have any questions concerning this or any CASPR Technologies product, contact your CASPR Technologies Distributor.* 

## **Principles of Operation**

CASPR Transit uses Natural Catalytic Conversion (NCC) to generate safe, low levels of hydrogen peroxide. NCC technology replicates natural purifying processes by using a high intensity light to activate a proprietary metal catalytic coating, converting water vapor into hydrogen peroxide. Hydrogen peroxide acts as an oxidizer inactivating surface and air pathogens. It can compromise cellular integrity by disrupting cell walls, or internal molecular structures, rendering contaminants harmless.

To learn more about the CASPR Transit and other CASPR Technologies products and technologies, please visit our website at <u>www.casprtech.com</u>.

## **Table of Contents**

| Warnings                                  | 3  |
|---|----|
| Specifications                            | 3  |
| Unit Diagrams                             | 4  |
| Installation                              | 5  |
| Filter Cleaning and Replacement           | 7  |
| Cleaning the Unit                         | 8  |
| NCC Cell Replacement                      | 8  |
| Fuse Replacement                          | 10 |
| Cell Disposal                             | 11 |
| Troubleshooting                           | 11 |
| Replacement parts (purchased separately): | 11 |
| Warranty Information                      | 12 |

### **IMPORTANT SAFETY INSTRUCTIONS**

When using an electrical appliance, basic precautions should always be taken.

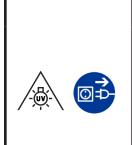
READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT

### WARNING!

To reduce the risk of fire, electrical shock, or injury:

- Use only as described in this manual.
- Do not attempt to repair or adjust any of the electrical or mechanical functions. Contact Customer Service for service information.
- Do not use outdoors or on wet surfaces.
- Do not allow to be used as a toy. Do not allow children around the unit.
- Do not handle appliance with wet hands.
- Do not allow foreign objects to enter the ventilation openings.
- Keep hair, clothing, fingers, and all parts of body away from openings.

#### • Do not touch NCC bulb with bare hands.



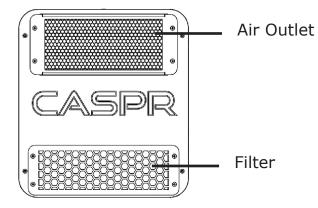
**WARNING!** - UV light in operation. Disconnect unit from power supply before servicing. Failure to follow warnings may result in severe eye damage.

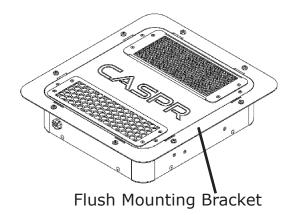
# **Specifications**

|                           | TRANSIT 120V   | TRANSIT 24V                    | TRANSIT 12V                    |
|---------------------------|--|--------------------------------|--------------------------------|
| Weight                    | 4.0 lbs  | 4.0 lbs                        | 4.0 lbs                        |
| Dimensions                | 9″ x 10″ x 2.6″                                      | 9″ x 10″ x 2.6″                | 9″ x 10″ x 2.6″                |
| (WxLxH)                   | 11" x 12" x 2.6" (flush mount)                       | 11" x 12" x 2.6" (flush mount) | 11" x 12" x 2.6" (flush mount) |
|                           | 100-240VAC 50/60Hz 1.8A                              |                                |                                |
| Electrical Input          | 277VAC 50/60Hz 0.9A<br>(277VAC - North America only) | 19-36VDC 1.5A 9-36VDC 1.5A     |                                |
| Amp. Draw                 | AC 0.02A   | DC 0.57A                       | DC 0.65A                       |
| Air flow (CFM)            | 17.9   | 17.9                           | 17.9                           |
| Noise (dBA)               | 48   | 48                             | 48                             |
| Min/Max<br>Operating Temp | 14°- 140°F   | 14°- 140°F                     | 14°- 140°F                     |

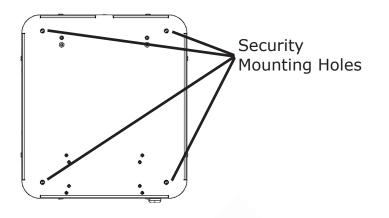
## **Unit Diagrams**

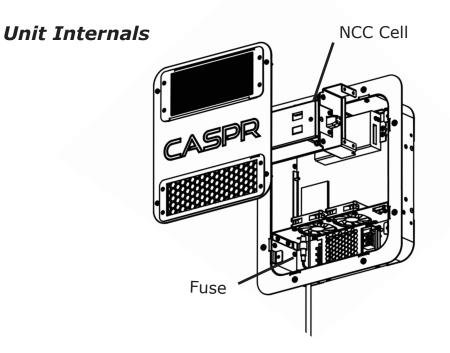
#### Unit Front





Unit Back





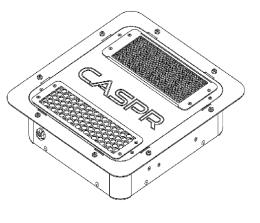
## Installation

Before installation, identify wiring routes in order to select the most optimal location for this install.

# All electrical wiring should be done by a licensed technician or mechanic that has experience locating and wiring low voltage.

#### **Flush Mount Installation**

- 1. Cut hole where the unit will be inset into the wall. Unit is  $9'' \times 10'' \times 2.6''$ .
- 2. Unscrew the bracket from the main unit. Then move the bracket from the bottom of the unit and screw it back on the top of the unit so the bracket is now flush with the top lid as seen in the image.



- 3. Place unit into the cut hole.
- 4. Use the 8 self-tapping screws to attach the unit to the surface.
- 5. Connect wiring into the 24VAC or the 12VAC power source. Refer to wiring guidelines below.

#### **Surface Mount Installation**

- 1. Identify where the unit will be placed / Drill hole for wire (If needed)
- Attach the unit flush to the surface of the vehicle by using 8 screws to secure the unit in place. Connect wiring into the 24VAC or 12 VAC power sources. Refer to wiring guidelines below.

#### **Wiring Guidelines**

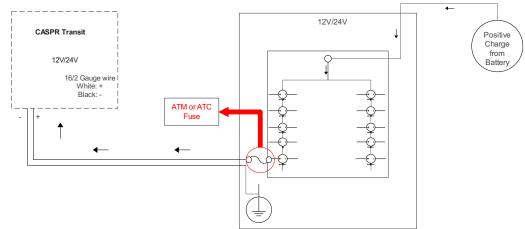
- WHEN INSTALLING ON A BUS, PAY SPECIAL ATTENTION TO FEDERAL, STATE, AND LOCAL CODES. WHEN APPLICABLE, THE SYSTEM MUST BE WIRED THROUGH THE SAFETY NOISE SUPPRESSION RELAY SYSTEM.
- Wire the system through a relay system to prevent the CASPR unit/s from draining the battery when not in operation.
- A fuse must be installed at the source of the power supply when installing a CASPR Transit unit onto a vehicle. Always use fuses specific to your vehicle's specifications. Use the fuses table below to install the appropriate fuse.
- Vehicles are subject to vibration; when running wire throughout the vehicle, be sure to **include slack in all wiring**.
- 18 gauge stranded wire should always be used.

#### Fuses

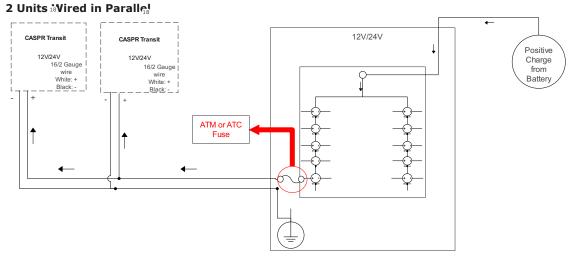
| Unit        | 1 Unit | 2 Units Wired in Parallel | 3 Units Wired in Parallel |
|-------------|--------|---------------------------|---------------------------|
| TRANSIT 12V | 3 Amps | 6 Amps                    | 9 Amps                    |
| TRANSIT 24V | 3 Amps | 6 Amps                    | 9 Amps                    |

#### 1 Unit

18

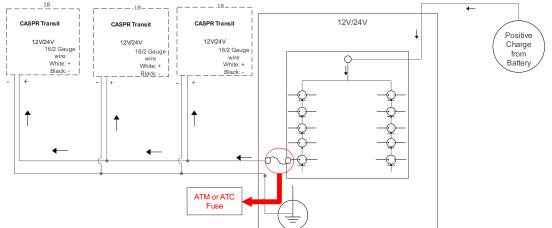


# ATTENTION: FAILURE TO USE AN IN-LINE FUSE CAN INCREASE THE CHANCES OF A THERMAL EVENT. WIRE THROUGH A RELAY SYSTEM TO PREVENT THE BATTERY FROM DRAINING.



### ATTENTION: FAILURE TO USE AN IN-LINE FUSE CAN INCREASE THE CHANCES OF A THERMAL EVENT. WIRE THROUGH A RELAY SYSTEM TO PREVENT THE BATTERY FROM DRAINING.

#### **3 Units Wired in Parallel**



ATTENTION: FAILURE TO USE AN IN-LINE FUSE CAN INCREASE THE CHANCES OF A THERMAL EVENT. WIRE THROUGH A RELAY SYSTEM TO PREVENT THE BATTERY FROM DRAINING.

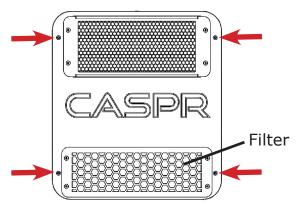
## **Filter Cleaning and Replacement**

We recommend cleaning the filter every 90 days, or when noticeably contaminated, by vacuuming the filter through the front filter cover. The filter should be replaced every 6 months. Service should only be performed by a qualified technician.

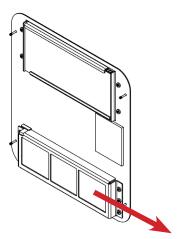


WARNING: Never service the unit while it is connected to a power source. Electrical shock or injury may occur. Make sure the power switch is turned OFF and the unit is unplugged prior to handling.

- 1. Disconnect unit from power source.
- 2. Remove the front cover from the unit by unscrewing the four Phillips head captive screws.



3. Remove the used filter by pinching the filter material and sliding it out of the bracket on the back side of the front cover.



- 4. Replace with the new filter.
- 5. Reattach the front cover.
- 6. Reconnect unit to power source.

NOTE: The filter may alternatively be replaced via the front filter cover using a T-8 tamper-proof torx bit.

# **Cleaning the Unit**

The unit will need to be cleaned occasionally, We recommend wiping it down each time you replace or clean the filter.



WARNING: Never service the unit while it is connected to a power source. Electrical shock or injury may occur. Make sure the power switch is turned OFF and the unit is unplugged prior to handling.

- 1. Disconnect unit from power source.
- 2. Remove the front cover from the unit.
- 3. Wipe all internals, other than the NCC cell and bulb, down with a damp cloth (Fan, ballast, covers, etc).
- 4. Reattach the front cover of the unit.
- 5. Reconnect unit to power source.

# **NCC Cell Replacement**

Your CASPR Transit unit requires replacement of the NCC cells and bulbs every 18-24 months, even if the bulb appears to be operating normally.

Service should only be performed by a qualified HVAC technician. Make sure there is no power going to the unit prior to handling.

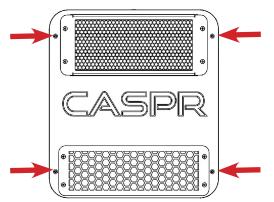


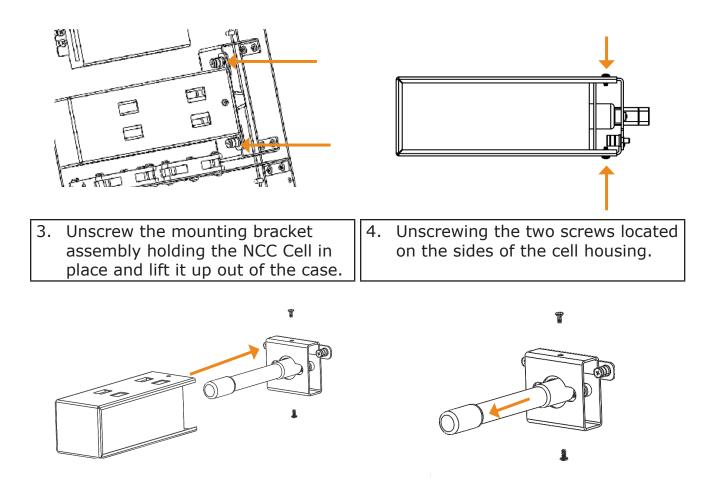
WARNING: Never service the unit while it is connected to a power source. Electrical shock or injury may occur.



WARNING: Please do not throw a used NCC Cell in the garbage. See "Cell Disposal" on page 8 for more information.

- 1. Disconnect unit from power source.
- 2. Remove the Front Cover from the unit by unscrewing the four phillips head captive screws.





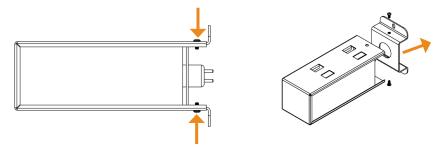
5. Separate the Cell housing from the mounting bracket6. Disconnect the bulb.

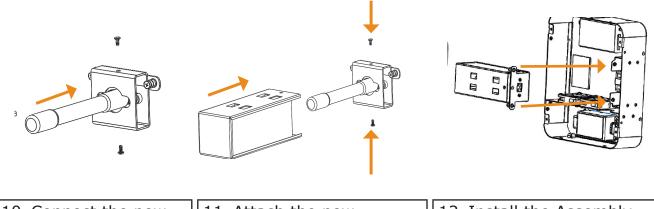
Dispose of the used bulb appropriately. Do NOT throw it in the trash. See "Cell Disposal" on page 8 for more information.

- 7. Remove the new Cell Assembly from the packaging box.
- 8. Carefully remove the new bulb from new cell housing.

#### **DO NOT touch the bulb with bare hands.**

9. Before replacing the new cell assembly into the transit, you must first remove the support bracket that came with the replacement cell. Detach the metal bracket on the end of the new replacement cell housing by unscrewing the two screws located on the sides. You will no longer need the support bracket from the new replacement cell once it has been removed.





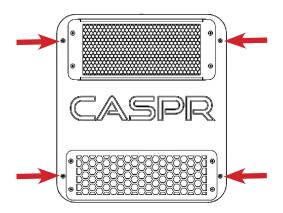
| 10. Connect the new | 11. Attach the new  | 12. Install the Assembly |
|---------------------|---------------------|--------------------------|
| Bulb to socket      | Cell Housing to the | onto the TRANSIT unit    |
| in the mounting     | mounting bracket    | and secure with the      |
| Bracket Assembly.   | with the previously | two thumb screws.        |
|                     | removed screws (2). |                          |

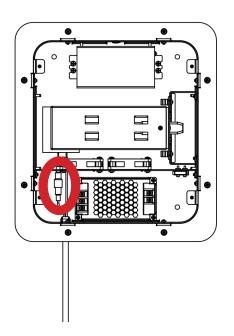
- 13. Reattach the Cover.
- 14. Reconnect unit to power source.

### **Fuse Replacement**

If you find the unit is powered off, even after activating the interlock switch and changing the bulb, you may need to replace the internal fuse. This can be done using the instructions that follow. If this still does not work, remember to check any in-line fuses that may have been added during install (page 6).

- 1. Disconnect unit from power source.
- 2. Remove the Front Cover from the unit by unscrewing the four phillips head captive screws and locate the fuse.





3. Unscrew the two plastic pieces folding the fuse in place.



- 4. Replace the fuse with a new 3amp 250 VAC 5mm x 20mm fuse.
- 5. Screw the two plastic fuse covers together to complete the circuit.
- 6. Reattach the Cover.

#### **Cell Disposal**

Do not throw a used NCC Cell in the garbage. The special germicidal UVC bulb used in the unit contains a very small amount of mercury. Dispose of the spent NCC Cell and UV Lamp at your local recycling center or by local regulations. To learn more, visit www.lamprecycle.org.

#### Troubleshooting

If your NCC Cell or CASPR TRANSIT fan does not turn on, check to ensure a secure connection. If secure, but the fan is not on, it may need to be replaced. If the connection is secure but the cell does not light up, the NCC cell or ballast may need to be replaced. When conducting maintenance ensure that the cover is properly installed so that the interlock switch is activated. If still, an issue persists, try replacing the 3 amp internal fuse using the instructions described above. If none of the prescribed steps work, please contact your CASPR authorized distributor with your serial number.

#### **Replacement parts (purchased separately):**

NCC Cell (Ozone-Free) Item #CELL-HV-5-001-AP-TR

Filter Item #CA450769011

Fuse Item # CA450756-3

#### Warranty Information

NDS Sales LLC d/b/a CASPR Technologies (as "Seller") offers the following Express Limited Warranty to a buying customer (a "Buyer") of a CASPR product (the "Product"):

Seller warrants to Buyer that (a) the Product will be free from defects caused by faulty workmanship or materials for three years from date of purchase when operated under normal conditions and in accordance with Seller's recommended use (the "Product Warranty Period)," and that (b) the Components (comprised of a bulb and a cell) will be free from defects caused by faulty workmanship or materials for one year from date of purchase when operated under normal conditions and in accordance with Seller's recommended use (the "Components for one year from date of purchase when operated under normal conditions and in accordance with Seller's recommended use (the "Components Warranty Period)."

#### SELLER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED.

Should Buyer discover a covered defect within the Product Warranty Period or the Components Warranty Period, Seller will repair or replace (at Seller's cost) the Product and/or the Components. Buyer's sole and exclusive remedy for Product or Components defects is limited to repair or replacement.

To confirm coverage or to schedule repair or replacement under this Express Limited Warranty, Buyer should contact Seller at **www.casprtech.com/warranty** and provide the serial number located on the Product and proof of purchase. Absence of a serial number or proof of purchase may void the Express Limited Warranty.

This Express Limited Warranty does not extend to or cover Product damage caused by accident, fire, flooding, exposure to temperature extremes, abuse, misuse, improper or unauthorized installation, modification, misapplication, or repairs performed by persons other than Seller. Repairs performed by persons other than Seller or Seller's authorized representative will void the Express Limited Warranty.

This Express Limited Warranty does not extend to or cover incidental or consequential damages incurred by Buyer arising from, related to, or in connection with, any Product or Components defects, including but not limited to downtime costs, loss of use, loss of revenue, and/or loss of profits.

#### SALES THROUGH DISTRIBUTOR OR RESELLER

To the extent the Product is purchased by Buyer from an authorized CASPR distributor or reseller, this Express Limited Warranty passes through to Buyer.

#### FOR U.S. APPLICATION ONLY

Product warranties are governed by state and federal laws and may vary from state to state. This Express Limited Warranty provides Buyer with specific assurances regarding repair or replacement of the Product. Other warranties are expressly negated. FOR CANADIAN APPLICATION ONLY

Canadian, provincial, and territorial sales laws may govern implied warranties. This Express Limited Warranty provides Buyer with specific assurances regarding repair or replacement of the Product. Other warranties are expressly negated. Should there be a difference between this Express Limited Warranty and Canadian law regarding implied warranties, Canadian law will control.



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