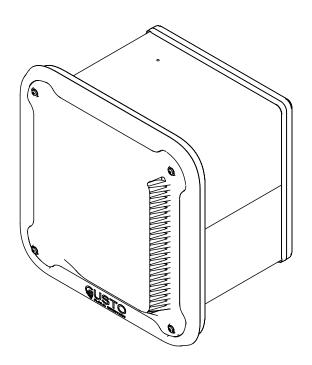
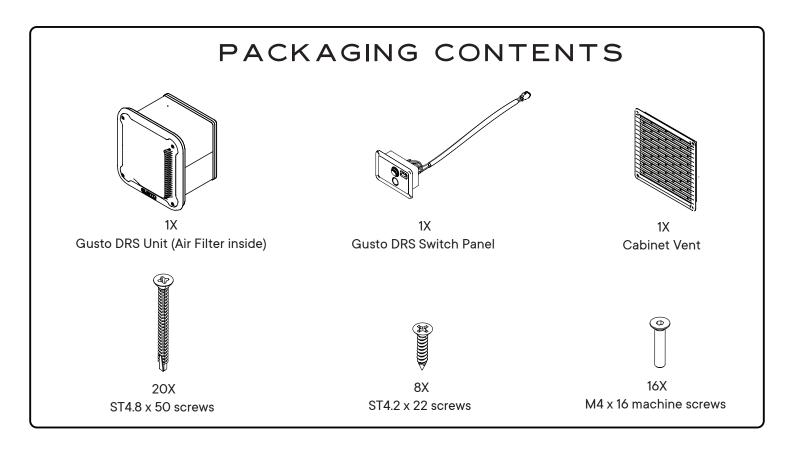




## DUST REDUCTION SYSTEM



MODEL NO: DRS



#### TECHNICAL DESCRIPTION

The Gusto DRS is designed for use on caravans and motorhomes. Its purpose is to move filtered air into the cabin to achieve a positive pressure differential between the interior and exterior of the vehichle. When the interior of the vehichle is lightly pressurised, dust cannot enter through unfiltered gas vents or leaky door and window seals.

The Gusto DRS has built-in drainage features that prevent the internal trapping of water and water entry into the vehicle. Despite this, It is still advised that the device is not powered on during rain as there is a low risk of airborne dust on wet roads.

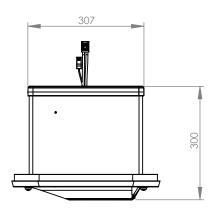
The Gusto DRS is designed for use whilst the vehicle is in motion. Airflow created by forward movement of the vehicle assists in the efficiency and performance of the device by forcing air into the Intake. For this reason it is crucial that the Intake is always oriented toward the front of the vehicle.

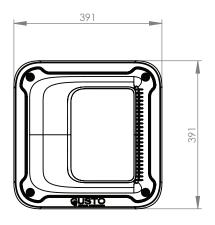
#### GENERAL SAFETY

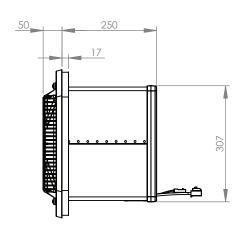
- DO NOT power on the device with the Intake or Air Filter removed
- DO NOT place any obstructions in the path of airflow
- All electrical connections and wiring required for installation MUST be carried out by a qualified electrician
- DO NOT drive through an automatic car wash with the Gusto DRS fitted
- Prior to installation, please check that the Gusto DRS will not cause your vehicle to exceed the maximum legal width.

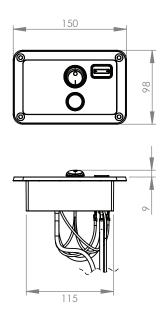
### PRODUCT DIMENSIONS

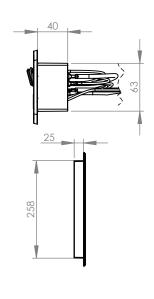
Prior to installation, ensure that the device and it's associated components will fit comfortably into the intented mounting location. Ensure that at least 70mm air gap is maintained around the rear of the device to avoid resricting airflow.

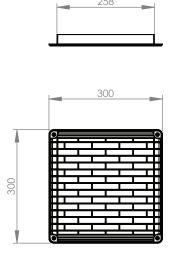












#### INSTALLATION REQUIREMENTS

# Failure to comply with the below requirements may impact performance and will void any warranty

The Gusto DRS is designed for installation in caravans and motorhomes. It is required that the device is installed in a fixed position. Once installed, the Air Intake of the device should be accesible from the exterior of the caravan.

- This device MUST be installed ABOVE the centreline on either the right or left side of the vehicle. It MUST NOT be installed anywhere on the roof, front or rear faces.
- This device MUST be installed in a manner that allows it to be easily servicable, it MUST NOT
  be permanently sealed within a cabinet where it is inaccesible without destruction of the
  surrounding cabinet.
- A fused 12-14V DC power supply capable of at least 30Amps continuous current MUST be used to power this device.
- This device has an internal fuse rated to 30A, however any length of wiring that spans between this device and a power supply (e.g. switch panel/battery) MUST also be fused (30A) at the start of the wire length.

## The manufacturer accepts no liability for any injury or damage to property in the following cases:

- Damage to the product resulting from mechanical influences
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual
- Incorrect assembly or connection, including excess voltage or under-rated supply cables
- Incorrect maintenance or use of spare parts other than original spare parts provided by the manufacturer
- Loose or stripped fasteners that are a result of failure to tighten sufficiently or use threadlocker where specified.

#### **WARNING!**



#### **RISK OF FIRE OR ELECTRIC SHOCK**

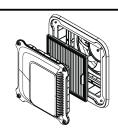
Turn off electrical power before service or installation of device

ALL electrical connections and wiring MUST be installed by a qualified electrician

Failure to correctly complete the following installation instructions could result in property damage or personal injury

#### INSTALLATION INSTRUCTIONS

- 1. Use DRS unit template on the product packaging to mark and make a cutout 310mmx310mm into caravan exterior wall. To do so, find the centrepoint of the inside wall of the cabinet and drill a small hole through the external wall. On the exterior of the caravan, align the black dot in the centre of the template with the previously drilled hole, this will ensure the cutout will be correctly posistioned relative to the inside of the cabinet. Neatly cut and remove the area indicated by template.
- Repeat Step 1 using the **260mm x 260mm** Cabinet Vent template. The Cabinet Vent should be positioned in a practical location to allow the pressure inside the cabinet that the DRS unit is fitted to, to equalise with the interior of the caravan. It can be oriented horizontally or vertically, underneath the cabinet or on the side.
- Cut an additional hole in the internal cabinet using the **65mm x 117mm** Switch Panel template. Be very careful to position the Switch Panel cutout so that it is easily accesible for operation of the device. The cutout must also be positioned so that when installed, the wiring protruding from the back of the Switch Panel comfortably reaches the connector on the rear of the DRS unit. To determine the max disance to the switch panel, the unit can be test fitted into the cutout made in step 1.
- 4. Loosen 4x captive screws retaining Intake Vent and Air Filter into the main unit. Remove Intake Vent and Air Filter in preparation for mounting unit to caravan wall.

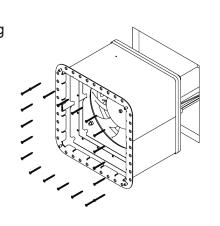


Apply a continuous bead of Sikaflex 227 automotive sealant (not provided) to the rear face of the mounting flange and foam seal.

Note: If device is being installed onto a Caravan with flat(non-corrugated) exterior walls, the seal can be removed to ensure the plastic filter bucket seats fully when installed.

Install the device, rear vent first, into the previously cut hole from the exterior of the caravan. The unit must be oriented so that the cables are on the bottom edge. Install the 35mm long self tapping screws through the holes in the mounting flange, into the caravan wall. The device may need to be supported from the inside of the cabinet while the mounting flange is being secured. If the caravan wall is corrugated, do not screw into the troughs of the corrugations, and instead use holes only that are positioned on the peaks.

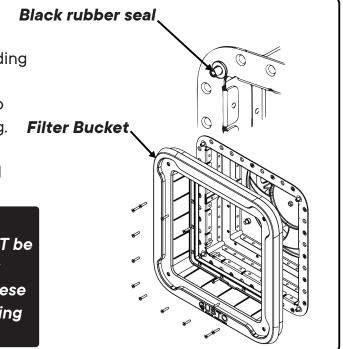
**Note:** It is not required to install a screw into every mounting hole on the flange at a minium 5 screws per side should be used.



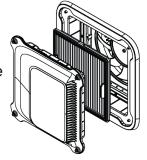
Tighten screws using a staggered approach to ensure the foam seal is compressed evenly and does not fold as the part is installed.

6.

**IMPORTANT:** The M4 screws MUST be installed with BLUE LOCTITE (242) and MUST be tightened sequentially using a manual screw driver. DO NOT use power tools to tighten these screws as there is a high risk of cross-threading or stripping.



Insert the Air Filter into the device ensuring that the pleats are oriented vertically and the pull tabs align horizontally. Insert and fasten the Intake Vent by firmly tightening the 4x captive screws. Tighten the Intake screws in 2 steps; start all 4 threads first, then tighten fully in opposing order to ensure even compression of the filter seal. It is also recommended that silicone based grease(not provided) is applied to the Filter seals prior to installation.



**Note:** Intake must face towards the front of the caravan.

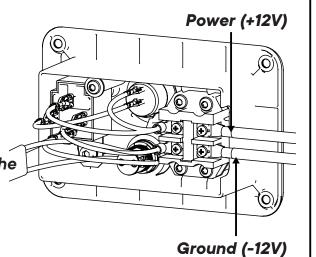
Remove the Air intake after installing and check that the 16 x M4 CSK screws installed in step 7 are still tight. After checking repeat step 8.

Power and ground leads **no thinner than 8AWG rating** need to be routed neatly and safely from the power suply (Switch board or battery) to the interior of the cabinet. The leads MUST NOT exceed 4 metres in length. Use wire with red insulation for power and black insulation for ground.

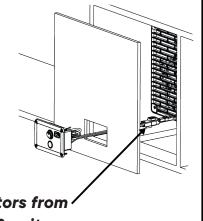
**WARNING!** The positive 12V lead MUST be fused at the power supply to protect the power leads from becomming a fire hazard in the event of a short circuit. A 30 AMP fuseable link or breaker is required (not provided).

Pass the power and ground leads through the previously cut switch panel hole(step 3) and terminate the power leads using crimped ring terminals(not provided). Fasten the power and ground wires into the Terminal Block using the two outer screw terminals. Connect ground to the left postition and power to the right (shown right).

WARNING! Do not solder the ring terminals to the wires, crimp only.

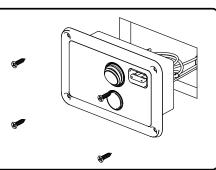


Feed the Switch Panel connectors through the hole in the cabinet panel and connect them to the connectors protruding from the rear of the DRS unit, ensure the connectors are fully engaged.

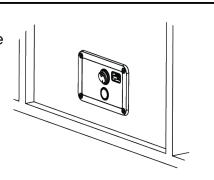


Connect both connectors from Switch Panel to DRS unit.

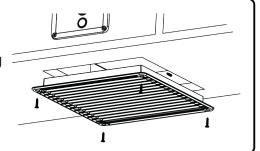
13. Insert the Switch Panel into the hole and fasten in place using 4pcs of the 22mm long self-tapping screws.



Secure the previously cut panel into the cabinet cavity, the method of fastening is up to the installer and will depend on the material of the panel and surrounding cabinet. Ensure that the panel is set back from the front of the cabinet by at least 15mm this will prevent the switch from contacting the cabinet door when closed. Using 4 of the supplied, 22mm long self-tapping screws, fasten the switch panel in place.



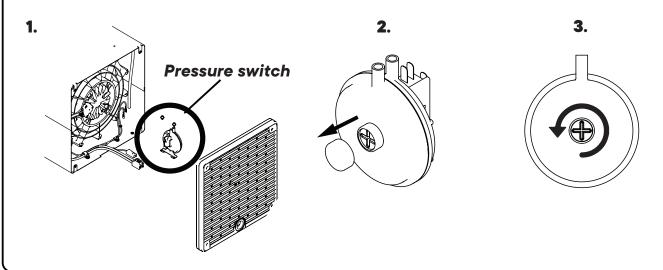
Fasten the Cabinet Vent into the previously cut hole on the underside of the cabinet (see step 2). The vent should be secured using 4 of the supplied 22mm long self-tapping screws (the same screws as the Switch Panel).



## 16. Test the function of the Air Filter Blockage Detector

With the Intake fully assembled, power the device on and wait 15 seconds. If the red warning light goes out, assembly is complete. If the red warning light remains on, the Pressure Switch requires adjusting (see next step).

- 17. Loosen 4x screws and remove rear panel, pressure switch is located in the bottom right corner in the rear of the unit. Loosen 2x screws securing pressure switch in place. The wires and hose do not need to be removed.
  - 2. Remove cap in the centre of the Pressure Switch to expose the adjustment screw
  - 3. Using a flat or phillips head screw driver, rotate the adjustment screw a 1/4 turn anti-clockwise
  - 4. Re-install cap and reassemble ensuring fasteners are tight. Power on device to confirm that light turns off after 15 seconds
  - 5. If light still remains on, disassemble again and rotate screw a further 1/4 turn



**Installation Complete!** 

#### INSTRUCTIONS FOR USE

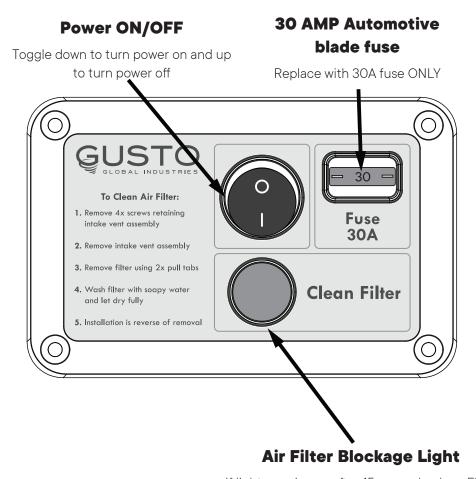
#### **Normal Operation:**

- 1. Switch device on by toggling circular switch down
- 2. Wait 15 seconds for fan to reach full speed
- 3. If red Air Filter Blockacge Light does not turn off after 15 seconds, clean filter (see below)
- 4. Leave the device on when driving, turn off as soon as vehichle is parked
- 5. Ensure to routinely check Filter Blockage Light and ensure that Intake Vent is free from debris and obstructions

#### To Clean Filter:

- 1. Remove 4x screws retaining Intake Vent
- 2. Remove Intake Vent and Filter
- 3. Wash Filter with soapy water
- 4. Allow Filter to fully dry before re-installing
- 5. Re-apply silicone grease to seals when re-installing

**Note:** When re-assembling the Intake Vent into the device, tighten the intake screws in 2 steps; start all 4 threads first, then tighten fully in opposing order to ensure even compression of the Filter seals.



If light remains on after 15 seconds, clean Filter