



Commissioning & Operating and Maintenance Manual





Operating and Maintenance Manual

Please read carefully

**These are guide lines to the maintenance of your extraction system.
The information that is in this hand book is recommended by the HVCA**

Canopy or hood over the cooking equipment

How often should this be cleaned and why?

You should clean the canopy at least once a week to stop the build up of grease and oil, if you allow it to build up it will then become baked on the canopy, making cleaning harder.

Method

Wash down weekly with hot soapy water ensuring that all fat channels are clean and clear, you are able to use degreasing agents on any of your canopies, when using degreasers please read all manufacturer's instructions, as these chemicals can burn the skin and eyes, also not all products are compatible with steel.

All hoods/canopies that are in the public view should be cleaned frequently to make a good impression to all your customers.



Canopy Filters

When and why should the canopy filters be cleaned?

Time Period, Weekly but this can depend on use of the system.

Too much build up on the filters will not allow the system to work efficiently.

Method

Wash using hot soapy water the water must be hot enough that rubber gloves are needed. Ensure that all oil and fat outlets are clear filters can be put through a dishwasher at the end of the night. For baked on grease use a degreasing agent (please read manufacturer's instructions) replace filters back into the canopy with drain slots or holes at the bottom.

Carbon filter unit and systems

There are several different carbon systems or odour control systems. This includes standard two stage filter and carbon system that contains, two mesh pre-filters and two G4 carbon panel filters.

How often should these filters be cleaned and maintained and why and where would I find the filter unit and what am I looking for?

Pre Carbon filter (mesh)

Time Period every two to three Months

Method

Wash with hot soapy water, water must be hot enough to need rubber gloves. Ensure that all oil and fat are removed from the filter and outlets are clear, filters can be put through a dishwasher at the end of the night. Allow the filter to fully dry before replacing it back in the filter housing (leave in a hot, turned off oven overnight)

This unit is in the loft space.

G4 Carbon panel filter



Time Period - 3 to 6 months

Method

This is situated in the carbon unit. Remove and dispose of and replace with new filters, must be replaced from 3 to 6 months.

This filter is located with in the air in box unit, that you will find the filler box with in the loft space.

Where is this unit in my store or restaurant?



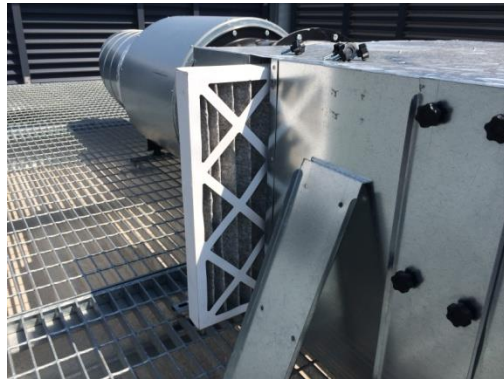
You will find this system located above the suspended ceiling or on the roof. Don't be confused with the air supply unit as it looks the same, you will be looking for the unit that has the fan next to it and also has two removed doors with black star knobs.

To replace the filters remove the panels and pull out both filters, you will find two filters behind each door.

After cleaning the pre-filters and replacing the G4 filters, slide the filters back on the runner and replace the doors.

The G4 filters will have an arrow showing the airflow, the airflow is coming from the canopy to the fan

the pre-filters should be put back in the door that is facing furthest from the fan.



WARNING- Always turn off the system before removing the filters.

Why should the filters be cleaned and replaced?

Not maintaining this part of the system can be the cause of the fan shutting down and overheating, by not cleaning the filters and letting them build up with grease creates resistance against the fan, this is not allowing the air to flow freely over the fan motor and can cause fan shutdown.



This is the number one cause of fan failure for extraction companies, this will shut the fan down and is not covered by warranty.



Time Period 3 to 6 months

Cleaning Method

Remove the black star bolts and pull out the two 500mm x 500mm mesh filter.

Wash with hot soapy water, water must be hot enough that rubber gloves are needed. Ensure that all oil and fat are removed from the filter and outlets are clear, filters can be put through a dishwasher at the end of the night. Allow the filter to fully dry before replacing it back in the filter housing (leave in a hot, turned off oven over night)

Air in-put system

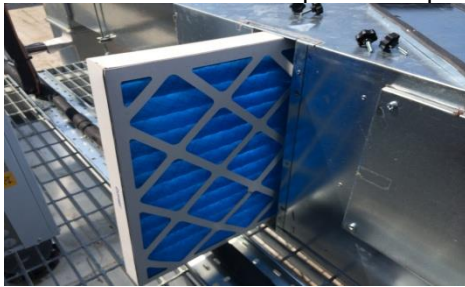
Where will you find this unit and what does it look like?

You will find this in the ceiling void above the cold room. The unit is a 1M by 1M box with an access door on the side.

Time Period 3 to 6 months

WARNING- Before opening the panel make sure that the fan is turned off.

Your make up air system has been fitted with two G4 pre filters, to replace the filters just remove the star knobs on the access panel and put out the filters and replace with new ones.



Ducting and Fan

All ducting will have a build up of grease and fat after a period of time and should be cleaned within the time period show below.

The reason that you should have your system cleaned is that the build up will cause the system to be insufficient, this will cause the fan to overheat or in the worst case burn out.

One of the other factors is that too much grease in the ducting is a fire risk, if a fire started at hood level it would spread through the ducting really quickly. Within a non serviced extraction system you have the three points of the fire triangle.



Heat from the oven

Oxygen from the fan

Fuel from the grease in the ducting

Cut one of the three above out you have no fire risks.

Time Period six – twelve months

Method

This is to be carried out by a professional duct cleaning company,

All cleaning companies should issue you with photo's before and after, along with your certificate.

For any more advice or support please feel free to contact us.

Canopy UK Tel: 01733 700468



Start up your extraction system

Your extraction system operated by stop/start switches.

To start the system turn on the fuse spurs next to the control units.

Then turn the key on the gas interlock box (Merlin) to the on position, a red light will indicate the power is on.

If your system has stop/start units, push the start button that is green.

You will hear the fans start up or feel the air coming through the ceiling grilles.

Now turn the key on the gas inter to on the light will now show the gas is on.



DOLC5.5230 Stop Start control units.

Merlin Gas Interlock control Panel.

When you have turned the panel on by the switch the red power light will be on.

The supply fan and extract fan lights will be flashing yellow.

The gas on light will not be lit

After turning the fans on the supply fan and extract fan lights will become solid on.

The gas on light will also come on.

If the EM Stop light is on, the push button near the exit has been activated and the alarm will sound reset the button by twisting it and it will pop out and the alarm will stop.



The break glass, stop switch reset by using the key at the bottom of the unit

To have a fully operating system you will need to have.

Power light on.

Supply fan light on

Extract fan light on

Gas on light on

If the fan fault light is on one of the either supply or extract lights will be flashing, this shows which fan is at fault.

Canopy Uk system Warranty

All fans come with a one year's manufacturer's warranty.

This covers the fan replacement up to one year, provided the fan has been maintained under the manufacturer's warranty.

The manufacturer's warranty does not cover Canopy UK labour costs.

A replacement fan will be fitted, the cost of the fan is covered by the fan manufacturer's although you will still incur a fitting cost. This cost will depend on the area and hour of call out (eg Unsociable hours)

You will be charged a call out fee which covers the first hour on site and then at an hourly rate thereafter.

Canopy UK warranty covers the system failure in the first twelve months from installation.

This includes ducting, canopy, wiring between fan and controllers and wiring between gas interlock panels and units, also all the non mechanical parts.

The warranty does not cover maintenance faults, any filters including canopy filters pre-filters and carbon panel filters.

Odour control systems that are fitted with in the system are covered by the manufacturer's warranty; some of the systems have a strict maintenance policy that must be carried out.

If the maintenance has not been carried out, the warranty may be voided by the manufacturer which will incur charges.

Gas Interlock systems and speed controls are covered by manufacturer's warranty for up to twelve months, faults due to mismanagement of the units are chargeable at call out rates.

Extended warranty: This policy can be taken out after the twelve months and will cover a full maintenance package. Please call the office for full details 01733 700468.

For full T&C please see the website www.canopyuk.com.

Fault Finder

No power to any of the units

Safety first when removing any control panel make sure that the power has been turned off.

Make sure you know where to turn this off from before starting.

Check fuse at the main fuse board

Check the 13Amp fuse spurs next to controls

All fuse's are ok, still no power to fan controls

Each speed control has a glass fuse inside.
Turn off the power at the fuse spur and remove controller front face and check the fuse.

All fuses are ok.
Ring for support
Canopy UK
01733 700468

Bypassing the speed controls.
Please refer to wiring diagram
Ring for support at
Canopy UK
01733 700468

Gas Interlock Panel

No power to any of the units

Check the 13Amp fuse spurs next to controls

EM Stop light is on / no gas

Check that all emergency stop buttons and all pulled out.
Turn unit off by the key and reset system.

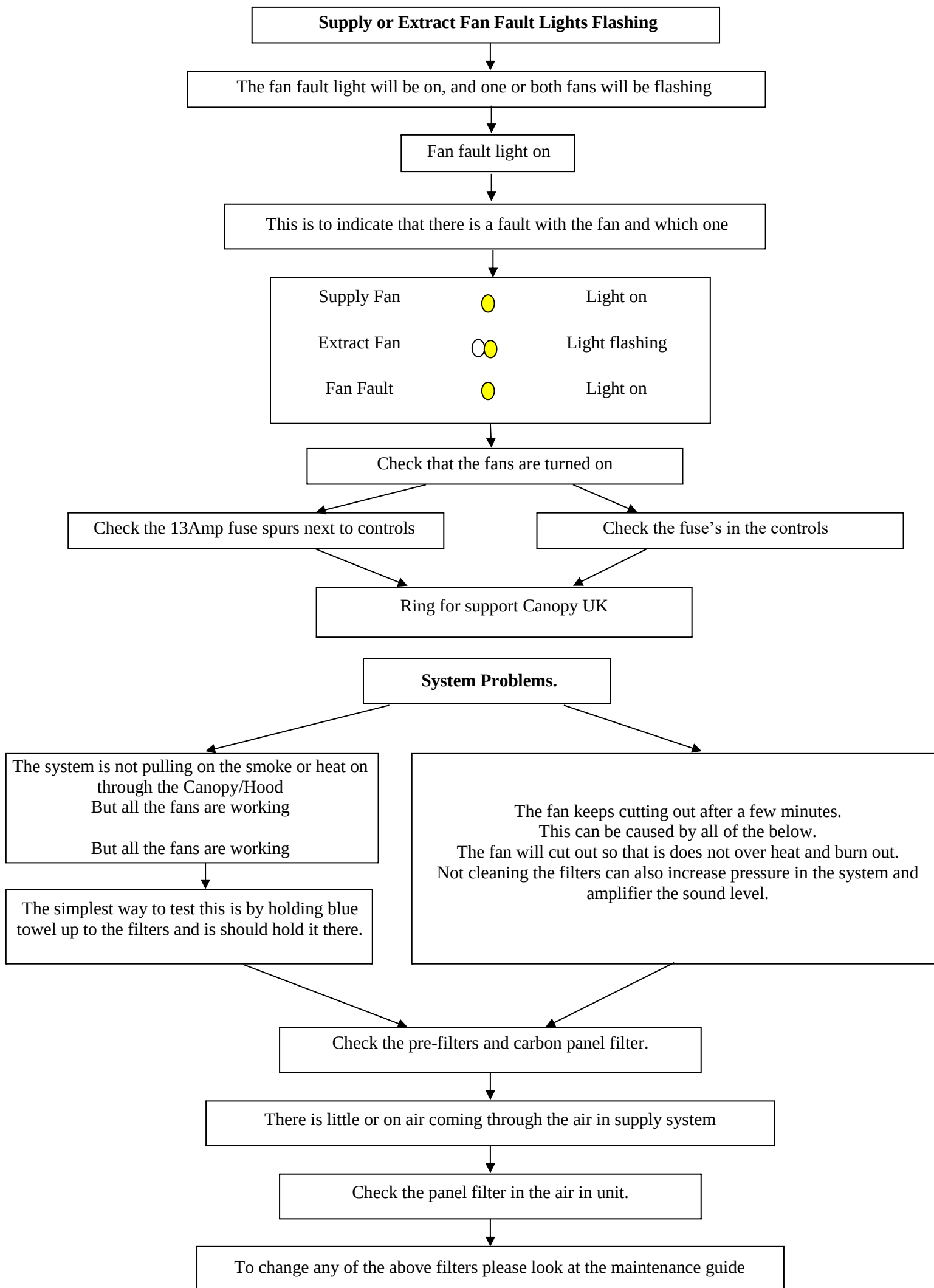
No Gas

Check that all fans are running and that the Fan Fault light is not on

Check that all emergency stop buttons and all pulled out.
Turn unit of by the key and reset system.

When turning the system on /off you should hear a click coming from the valve this is located on the gas pipe close to the cooking equipment.

If all of the above is ok call a Gas engineer.





Commissioning Information

Canopy size

Over all length: 2400mm width: 2000 mm back: 500 mm front: 500mm
Filter size 500 mm 450 mm 50 mm number of filters : 8 in each side
Canopy face velocity: 3.0 m³/sec
Canopy height from floor 2000mm

Fans

Extraction

Made: S&P
Model TCBBx2/4-450
RPM 1370
dBA 74
air volume 6900 m³/h
IP rate 65
Fan duty 1.9 m³/s
Power supply Single phase

Air make up

Made S&P
Model CBM-10/10 373W
RPM 900
dBA 67
air volume 4500 m³/h
IP rate N/A as is installed within the store and doesn't come in contact with the weather.
Power supply Single phase

Silencer

Size length: 450mm Width: 450mm wall thickness: 75mm pod: no
Sound reduce level with silencer: 48-49dBA
Sound reduce level with silencer and fan in the ducting, at 1 dBA per 1m: 13 dBA to the cowl
Code CP03-C*P-045-1D

Fan Controls

Both extraction and make up air controller are DOL stop/starts IP65 single phase

Carbon filter system

Pre filter or mesh type and manufacture. Mesh Grease
Pre filter or mesh size 500 x 500 x 50 x2
Carbon filter box size .1000 (W) 1000(L) 500(D)
Dwell time 0.2 seconds
Dwell time is calculation form (area x Deep divided by volume)

Duct work

Size : 500 x 250mm square 450mm SPT approximate length overall: 16M from canopy to cowl
Cowl type and size: velocity cowl at rear of store 1000mm above roof line.
Cowl discharge velocity: 14.2m³/s

Air flow readings

All readings were done at 20 to 50mm away from the filters and inlet grills, the anemometer used is a ATP DT-318.
All readings were done with the all doors closed.

Extraction

At the filter face 2.9m³/s
In the ducting 9.50m³/s

Make up air

At the grills 2.5 m³/s
Vents size: 600mm x 600mm 4 way ceiling grilles
Number of vents: 5
As the readings show, there is more air coming back into the store to achieve negative pressure or 85% intake to extraction.

Other notes that are relevant to the system.

Toilet extraction fitted

Carbon filter system fitted within the loft space area.

Also this system meets DEFRA along with HVCA TR/19 and DW/172

Gas interlock system

Pipe size: 1 & 1/2"

System used: Merlin CT1250

All systems cutting gas off and working with the canopy system: YES

Connected to air make up: yes

This canopy system was supplied or fitted by canopy UK.

Supply only.....fitted yes

Address of installation

Commission only.....

Name..John Ellingham

Signature..*J Ellingham*

Date..

Post Code

All our systems comply with DW172 regulations and specifications with regards to ducting sizes, heights and fan duties etc.

Canopy UK can supply a wide range of kitchen equipment and stainless steel fabrications such as sinks, tables and racking please browse our website www.canopyuk.com under price list thank you.

