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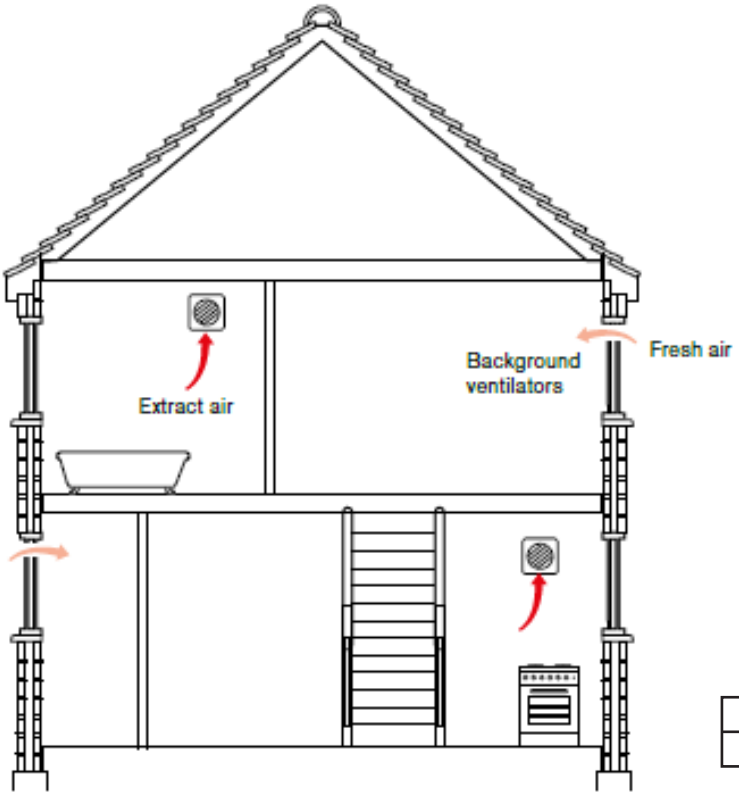
Get to know your Greenwood Unity CV2GIP fan

Meet your low maintenance, low energy, low noise, top of the range decentralised mechanical extract ventilation fan (dMEV).

Your continuous ventilation fan provides protection for your home against condensation, mould growth and ensures a good level of indoor air quality. Everyday activities such as bathing, cooking and showering creates steam and smells which will be reduced by the constant ventilation of CV2GIP.

What is continuous extract ventilation?

Continuous extract ventilation is a simple and effective form of whole house ventilation. The airflow rates are set to enable effective ventilation in the property as they are running 24 hours a day!



How does it work?

Continuous extract fans provide low level background ventilation to all wet rooms with automatic boosting features when required. The Boost operation is commonly activated via the light switch, when short bursts of high extraction are required, or via the automated humidity and timer sensors. The low level continuous ventilation ensures the effective provision of good indoor air quality. The CV2GIP is a decentralised ventilation system found in all the rooms that needs air extraction and fresh air via the dry rooms.

Price correct as of August 2017.

	Watts		Hours Used per day	Total KWh per day	Total KW per year	Total Annual cost at 12p per unit	Annual Running Cost
	Trickle	Boost					
Trickle	6		22	0.0242	8.8	£1.05	£1.53*
Boost		13	2	0.0108	3.9	£0.47	

For full instructions and maintenance information on the CV2GIP fan, please refer to the Homeowner Guide available at:
www.greenwood.co.uk/uploads/docs/530.pdf

Your house is fitted with a *continuous* running extract fan

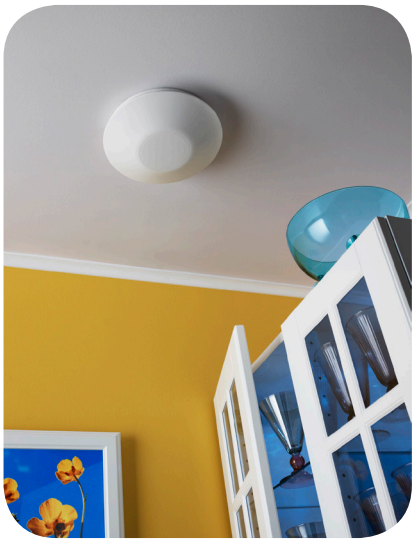
DO NOT SWITCH IT OFF!

Get to know your Greenwood Unity CV2GIP fan

Meet your low maintenance, low energy, low noise, top of the range decentralised mechanical extract ventilation fan (dMEV).

Bathroom

In the bathroom, the CV2GIP fan will be running continuously at a low level. A boost function will activate via the light switch or humidity sensor depending on how it has been installed. The boost function is needed to quickly remove increased levels of moisture or odours from the room.



Kitchen

In the kitchen, the CV2GIP will be running continuously at a low level. A boost function will be provided – either by an independent switch or automatically via humidity sensing depending on how it has been installed. The boost function is needed usually when you are cooking to remove higher levels of moisture and odours. The CV2GIP fan has been made to last for a long time and will provide many years of trouble free operation.

- ✓ Low running cost
- ✓ Low noise
- ✓ Low voltage for safety
- ✓ Low maintenance - no filters to replace
- ✓ SMART technology - works harmoniously with the surrounding environment and contributes towards reducing carbon footprint

The running cost for the whole year is just above £1.50.

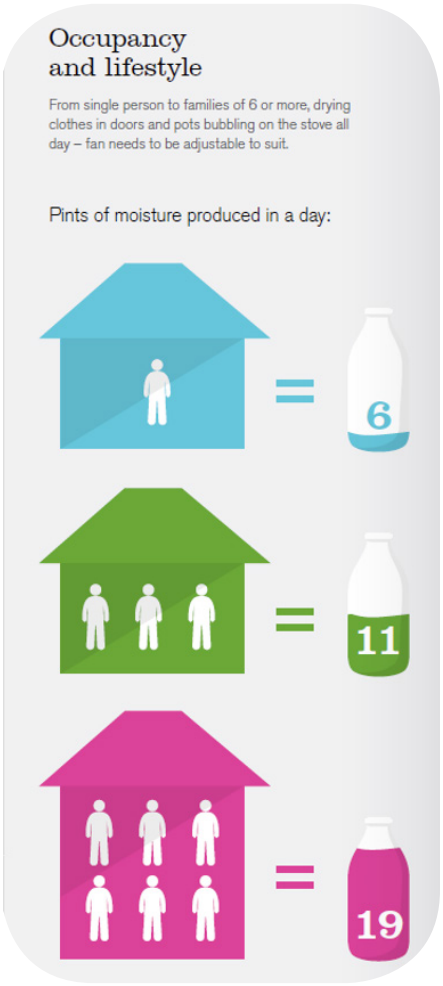
That's the same price as a loaf of bread!

For full instructions and maintenance information on the CV2GIP fan, please refer to the Homeowner Guide available at:
www.greenwood.co.uk/uploads/docs/530.pdf

Your house is fitted with a *continuous* running extract fan

DO NOT SWITCH IT OFF!

How many pints of moisture do you think a shower creates?



There is a lot of moisture in homes!

- A bath or shower — 2 pints
- Drying clothes indoors — 9 Pints
- Cooking and use of a kettle — 6 Pints

✓ Ventilation in 'wet rooms' is essential
✓ Existing homes where insulation has been improved/ upgraded
✓ New Homes – Building Regulations
✓ Mould and Condensation are serious issues

The benefits of good ventilation in the home.

✓ Good ventilation helps reduce condensation i.e. water droplets on windows, walls or other surfaces
✓ Draw out the moisture in your home and minimise the effect of dampness on your home's structure.
✓ Reduce the risk of Radon gas, which is orderless, colourless gas and is formed by natural decay of uranium rocks
✓ Ventilation help control the concentrations of VOCs (Volatile organic compounds) becoming toxic
✓ Allergens such as pollen, dust and other irritants will be reduced significantly with proper ventilation

High concentrate of indoor pollution could be harmful to you and your family without you even realising it.

Unity CV2GIP

Low energy – one fan, any room

2 YEAR WARRANTY | COMPLIES WITH SYSTEM 3 | IPX5 RATED WALL | IPX4 RATED CEILING | COMPLIES TO: LOW VOLTAGE DIRECTIVE EMC COMPATIBILITY DIRECTIVE | CE MARKED | SUITABLE FOR ZONE 1 AND 2

Features and benefits

Unity's outstanding energy performance and in-built SMART technology provides the best answers for today's ventilation requirements in both new and refurbishment housing.

- One fan, any room, all applications - CV2GIP can be applied to all wet rooms and removes the need for large ducting networks and high background ventilation requirements
- Using as little as 1.1 watts, Unity's energy performance is ideal for directly reducing carbon emissions in SAP
- CV2GIP's short 68mm spigot design makes it perfect for application in shallow ceiling voids
- The unique 100% variable airflow feature offers peace of mind to Installers that Building Regulation compliance can be easily achieved
- CV2GIP's SMART technology features, including automatic humidity sensing and a logical approach to overrun timing, help to reduce heat loss and energy wastage
- The discreet and stylish design helps CV2GIP to blend in with its environment
- The SMART touchpad located on the front panel removes the need for battling with fiddly switches, often located at the back of the fan
- CV2GIP offers ultra-quiet ventilation as low as 10dB(A) in low speed mode once installed
- **The best of the rest - CV2GIP has a low energy EC motor, 9 registered design patents and a mixed flow backward curved impellor, increased performance, removing clogging as the rubber blade protectors attract duct**

Greenwood SMART Technology

GIP | Greenwood Humidi SMART® | Greenwood Commission SMART® | Greenwood Timer SMART® | Greenwood Carbon SMART® LOW ENERGY

Unity picture frame adaptor

Material: White satin finish, ABS plastic
Designed to provide a perfect aesthetic finish when the Unity fan is used as a replacement in existing Ø 150mm wall installations.

Product code	Width	Height	Depth	Price ex. VAT (£)
PFACV2	246mm	246mm	22mm	**£25.36**

Models, control options and key data

*Sound pressure level measured @ 3 metres

Product code	Control operation	IP	Voltage	Preset speed, 100% adjustable	Airflow performance (l/s)		Sound Pressure Level dB(A)*	Energy consumption (W)		Price ex. VAT (£)
								Min	Max	
CV2GIP	Continuously running dMEV fan with automatic Greenwood HumidiSMART™ sensing and Greenwood TimerSMART™ overrun options (set up at installation)	X4 Ceiling X5 Wall	220 - 240V	**Trickle**	5	8	10.1 - 38.5	1.1	5.4	**£103.34**
				Boost	8	13				
				Min/Max	2	23				
CV2SVGIP	Continuously running SELV fan with automatic Greenwood HumidiSMART™ sensing and Greenwood TimerSMART™ overrun options (set up at installation)	X4 Ceiling X5 Wall	24V DC	**Trickle**	5	8	10.1 - 38.5			**£133.58**
				Boost	8	13				
				Min/Max	2	23				

Physical specification

All measurements in millimetres unless otherwise indicated

Weight: 1kg

Spigot: Ø 100mm

Materials: White satin finish
ABS plastic manufacture

Ancillaries for Unity
Flexiduct page 48 ▪ External grilles page 49 ▪ FF100 Fastfix page 48 ▪ PFA (picture frame adaptor) page 49

Installation

Wiring: Must comply with IEE Regulations

Fuse: 3 amp normally required (when fan is supplied from a 6A lighting circuit no local fuse is required)

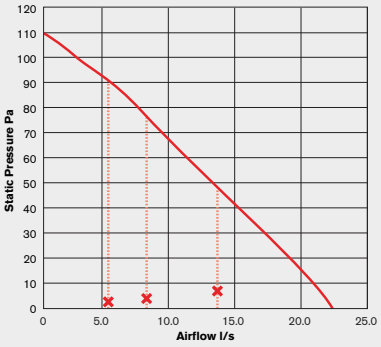
Electrical specification: 220–240V~50Hz Class II
SELV Class III

Cable: Ø 1mm² max

Installation: Wall or ceiling

Consumption: Min 1.1W
Max 5.4W

Performance



Key
Unity
For manual airflow volume setting
Default settings ✖

Fuss-free installation

We have kept the installer firmly in the forefront of our mind whilst designing Unity.

A 'Twist-Lock' front fascia simply turns for removal. On the inside, screws can be undone but stay in place when you use the innovative 'stay open' internal hinge for easy wiring access and secure fixing, designed to reduce installed vibration. This means no need to hold or put down screws keeping everything within easy reach of the installer.

The touchpad

The innovative touchpad has been designed to help reduce set up and commissioning on-site. All of the set up features are located in one place which is easy to access once the fan is wired and installed.

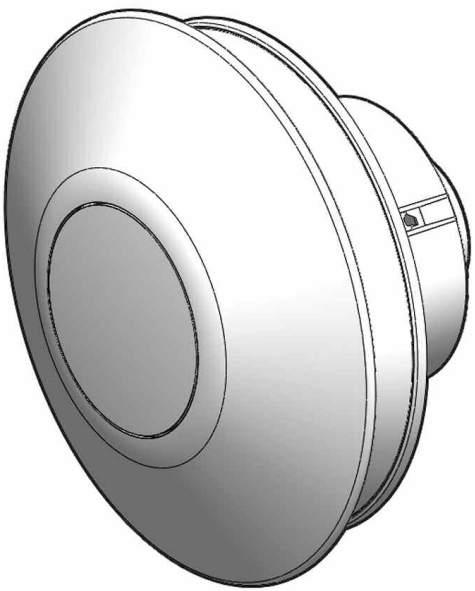
This helps ensure that the correct installation is achieved and once completed, the touchpad is locked to avoid unnecessary changes being made to the fan's running mode.

A one product concept - one fan, any room, all installations. Unity is the first continuously running fan to truly assist in the delivery of Guaranteed Installed Performance.

Unity CV2GIP

Decentralised Mechanical Extract Ventilation (dMEV)

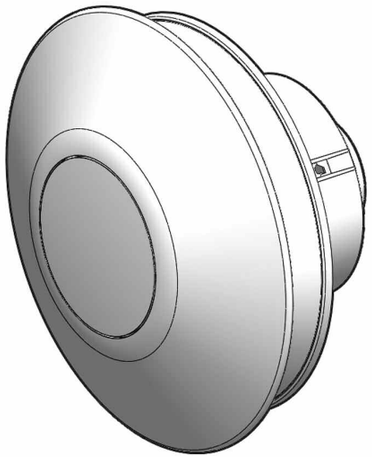
User / Homeowner Guide



Commissioning and Inspection Record:

Located on page 10 of this guide, should have been completed by the Commissioning Engineer.

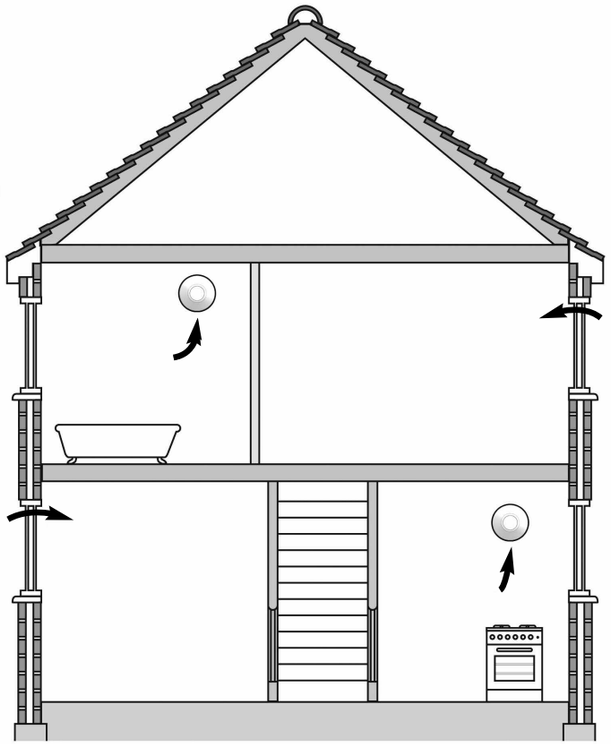
Contents



1.0 Ventilation In Your Home

Your home has continuously running ventilation Unity CV2GIP (dMEV) fans installed. This consists of locally sited extract fans that form part of a whole house ventilation approach. These fans extract air on a continual basis from the following areas (defined as wet rooms within Building Regulations) in residential dwellings –

- Kitchen
- Bathroom
- Utility Room
- WC/Cloakroom
- Ensuite Bath/Shower Room

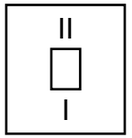


2.0 General Overview

2.1.1 The specific operation of your fan may vary depending on the way it has been installed.

The options are –

Trickle Speed: Operating on a continual basis.
Boost Speed: Activated manually using our GS2 switch or via the room light switch.



GS2 switch markings - Trickle (I) & Boost (II) Operation

Note: Other manufacturers switches may show different markings.

2.1.2 To maintain a healthy indoor environment the Unity CV2GIP includes SMART technology for Over-run Timer (Greenwood TimerSMART™) and Humidity (Greenwood HumidiSMART™).

2.1.3 **Greenwood TimerSMART™** monitors the length of time that there is an occupancy presence within a wet room (via the 'switch-live') and provides a fixed over-run time period to best match the length of time that the 'switch live' is active (as shown below):
Note: The first 5 minutes will not activate an over-run.

Time 'Switch Live' is Active	Over-run Boost Period
0 – 5 minutes	No over-run
5 – 10 minutes	5 minutes
10 – 15 minutes	10 minutes
15+ minutes	15 minutes

This removes nuisance running noise and unnecessary energy wastage typically associated with traditional timers.

2.1.4 **Greenwood HumidiSMART™** monitors the ambient humidity within the wet room environment and looks for short peaks of humidity made by either showering or bathing. This smart technology ensures that your Unity CV2GIP is not on boost for prolonged periods of time, removing nuisance running noise and unnecessary energy wastage typically associated with increases to background humidity which naturally occurs with the changing seasons.

2.1.5 To maintain good indoor air quality within the dwelling it is important that the fan remains in operation at all times unless switched off for maintenance. (See section 4.0 Servicing / Maintenance).

2.1.6 Depending on when your home was built, background window trickle ventilators may be provided in dry habitable rooms. **Trickle vents should not be installed in the same rooms as the fan, as overall ventilation effectiveness can be reduced.**

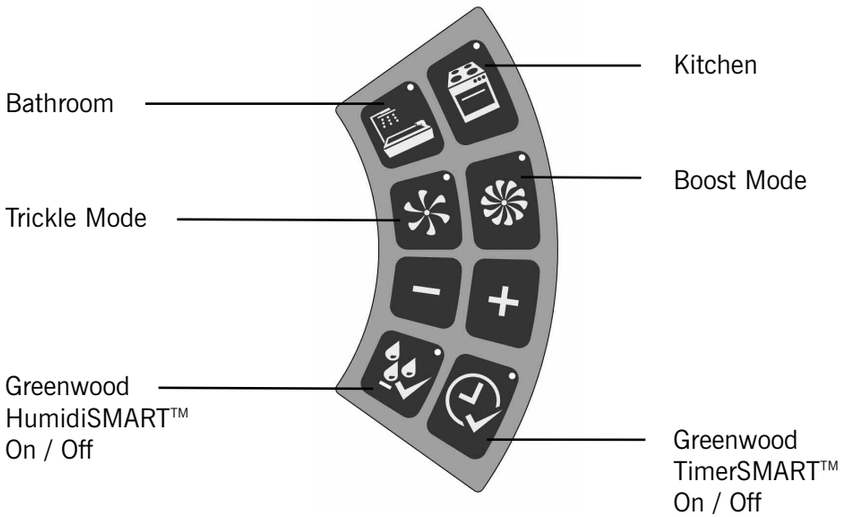
2.1.7 The appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.

3.0 Homeowner Controls

3.1.1 Controls

This section shows how to operate the Unity CV2GIP control panel.

3.1.2 Control Panel



3.1.3 To View Fan Set Up / Status

Press any button to activate the panel. The current fan set up / status will be shown via the green lights.

Example shows: Bathroom setting selected
Boost mode activated
Greenwood HumidiSMART™ feature selected

Note: The Unity CV2GIP is commissioned during installation to provide the correct airflow requirements for your dwelling. Post adjustment of the room setting or airflow speeds is not available.

3.1.4 To Change the Greenwood HumidiSMART™ Setting

The Greenwood HumidiSMART™ monitors the humidity of the extracted air at all times. A rapid rise in humidity from a bath / shower, should be picked up by the sensor and should cause the fan to automatically switch to Boost mode.

When humidity falls below a calculated threshold close to background levels, the fan should return to trickle mode.

To identify current fan status, press any button to activate the panel. Upon identification of control status, either press [ ] to activate or deactivate the Greenwood HumidiSMART™. Please note the light should come on to indicate that the function is active.

Factory set to OFF

Option's ON / OFF

Note: After approximately 10 seconds of inactivity, the control panel lights should turn off and save selection settings.

Note: This feature can be activated at the same time as the Greenwood TimerSMART™.

3.1.5 To Change the Greenwood TimerSMART™ Setting

The Greenwood TimerSMART™ monitors the length of time the unit has been in boost mode via the Switch Live. Once the Switch Live is deactivated the Greenwood TimerSMART™ over-run period should continue to run the unit for a calculated time if required.
Note: The first 5 minutes should not activate an over-run.

Time 'Switch Live' is Active	Over-run Boost Period
0 – 5 minutes	No over-run
5 – 10 minutes	5 minutes
10 – 15 minutes	10 minutes
15+ minutes	15 minutes

To identify current fan status, press any button to activate the panel. Upon identification of control status, either press [ ] to activate or deactivate the Greenwood TimerSMART™. Please note the light should come on to indicate that the function is active.

Factory set to OFF

Option's ON / OFF

Note: After approximately 10 seconds of inactivity, the control panel lights should turn off and save selection settings.

Note: This feature can be activated at the same time as the Greenwood HumidiSMART™.

4.0 Servicing / Maintenance

4.1.1 The Unity CV2GIP contains a unique backward curved mixed flow impellor that has been designed to reduce against any build up of dirt. **The fan motor has sealed for life bearings, which do not require lubrication.**

4.1.2 Periodic cleaning of the fans front cover and casing can be carried out using a soft damp cloth. Care must be taken when wiping around the control panel.

4.1.3 **WARNING: The Unity CV2GIP must be isolated from the mains supply before removing the electronics cover. Do not use solvents to clean this fan.**

4.1.4 Please note that your stored fan settings will not be lost during any interruptions to your fan's power supply.

5.0 Commissioning & Inspection Record

5.1.1 This section should be used to record all installation details. The Commissioning Engineer should use the following Parts 1 to 3, to record important information relating to the installation, of which, should be incorporated into the Home Information Pack for the homeowner to keep.

- **Part 1 – System details and declarations**
- **Part 2a – Installation details**
- **Part 2b – Inspection of installation**
- **Part 3 – Air flow measurement test and commissioning details**

Part 1 – System details and declarations

1.1 Installation Address Details	
Dwelling Name/Number	
Street	
Locality	
Town	
County	
Post Code	
1.2 Installation Details	
System Classification	System 3 – Decentralised Mechanical Extract Ventilation
Manufacturer	Greenwood Air Management Limited
Model Number	CV2GIP
Serial Number (where available)	
Location of dMEV fans	

Part 2a – Installation details

2.1 Installation Checklist – General (all Systems)	Tick as appropriate	
Has the system been installed in accordance with manufacturer's requirements?	**Yes**	**No**
Have relevant system installation clauses been followed as detailed in Tables 1, 3, 5 and 7 as applicable?	**Yes**	**No**
Type of ductwork installed (e.g. rigid, semi-rigid)		
If any deviation from Tables 1, 3, 5 and 7, these should be detailed here.		
Description of installed controls (e.g. timer, central control, humidistat, PIR, etc)		
Location of manual / override controls		

2.2 Installation Engineer's Details	
Name	
Company	
Address Line 1	
Address Line 2	
Telephone Number	
Post Code	
Signature	
Competent Person Scheme / Registration Number (if applicable)	
Date of Installation (completion)	

Part 2b – Inspection of Installation

This section should be completed before completing part 3.

2.3 Visual Inspections – General (all Systems)	Tick as appropriate	
Total installed equivalent area of background ventilators in dwelling?		**mm**
Total floor area of dwelling?		**m^2**
Does the total installed equivalent ventilator area meet the requirements given in Tables 5.2a, 5.2b, or 5.2c in ADF?	**Yes**	**No**
Have all background ventilators been left in the open position?	**Yes**	**No**
Have the correct number and location of extract fans/terminals been installed that satisfy Table 5.2a in ADF?	**Yes**	**No**
Is the installation complete with no obvious defects present?	**Yes**	**No**
Do all internal doors have sufficient undercut to allow air transfer between rooms (i.e. 10 mm over and above final floor finish)?	**Yes**	**No**
Has all protection/packaging been removed (including from background ventilators) such that system is fully functional?	**Yes**	**No**
For ducted systems, has the ductwork installation been installed in such manner that air resistance and leakage is kept to a minimum?	**Yes**	**No**
Are the correct number and size of background ventilators provided that satisfy ADF?	**Yes**	**No**
Has the entire system been installed such that there is sufficient access for routine maintenance and repair/replacement of components?	**Yes**	**No**
Upon initial start up, was any abnormal sound or vibration experienced, or unusual smells detected?	**Yes**	**No**

2.4 Inspector's Details			
Name			
Company			
Address Line 1			
Address Line 2			
Telephone Number			
Post Code		Signature	
Competent Person Scheme / Registration Number (if applicable)			
Date of Inspection (completion)			

Part 3 – Air flow measurement test and commissioning details

3.1 Test Equipment	
Schedule of air flow measurement equipment used, (model and serial)	Date of last UKAS calibration
1.	

3.2 Air Flow Measurements				
Room reference (location of terminals)	Measured Air Flow High Rate (l/s)	Design Air Flow High Rate (l/s) Refer to Table 5.1a ADF	Measured Air Flow Low Rate (l/s)	Design Air Flow Low Rate (l/s) Refer to Table 5.1a in ADF
Kitchen				
Bathroom				
En Suite				
Utility				
Other…				

3.3 Commissioning	Tick as appropriate	
Have controls been set-up in accordance with the manufacturer's recommendations?	**Yes**	**No**

3.4 Test Engineer's Details	
Name	
Company	
Address Line 1	
Address Line 2	
Telephone Number	
Post Code	
Signature	
Competent Person Scheme / Registration Number (if applicable)	
Date of Test	

6.0 The Guarantee Period

6.1.1 This Greenwood product (**Unity CV2GIP**) has a 2 Year Guarantee.

6.1.2 This does not affect your statutory rights.

6.1.3 Full details available on request from +44 (0) 870 900 1880 or www.greenwood.co.uk / info@greenwood.co.uk

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05.10.933 Issue 1 (MCR 600) January 2011