

Technical Bulletin December 2019

Welcome to the ecmk Technical bulletin for this quarter.

In this issue we cover:

- Audit evidence: What is acceptable
- Taking Evidence Images in Context
- Glazing Gap Tool & How to Use Correctly
- Domestic Smart Rules update Rule 23 Explained
- RdSAP 9.94 Software Glitches & Fixes
- PAS 2035 Retrofit Coordinator & Assessor Training (what is it & shall I get involved)
- Room in Roof Evidence required including RiR Flow Chart
- Room in Roof using U Values
- Non-Domestic Audit Checklist
- Christmas CPD Quiz
- Christmas & New Year Opening Times
- Customer Satisfaction Survey
- Lodgement of incorrect EPCs
- Upcoming Training

Please do contact us if you wish to see clarification of any issues for future bulletins.

Many thanks and we hope you enjoy the bulletin.

Stephen Farrow Scheme Manager





Audit Evidence: What is acceptable

Audit Evidence Requirements (Level 2 SORs V1.4 19.07.19)

- 1. Members will provide sufficient evidence to their Accreditation Scheme to prove that the Energy Certificate lodged is correct. The evidence presented must be of sufficient clarity to enable the Accreditation Scheme to replicate the Energy Certificate in order to judge within all reasonableness that it is correct.
- 2. All evidence provided must be unique to the property visited and be reflective of the nominated date.
- 3. Acceptable evidence will consist of floor plans, photographs and any other documentation to support the data entry and the assumptions made during the assessment process.
- 4. Accreditation Schemes will provide their members with the appropriate guidance on what they consider to be appropriate evidence. ACC 605 found on Assessor Hub
- 5. Accreditation Schemes will retain the evidence provided by their members and the workings of the auditor undertaking the audit of the Energy Certificate for ten years.

REQUIRED EVIDENCE	COMMENTARY	Requirements) listed wh	nat was
Data file, and / or RDSAP Data Collection Forms, relating information used by DEA to calculate the EPC, which allows QAAs to assess the accuracy of the EPC against each stage of data entry associated with RdSAP.		acceptable evidence	iat was
Floor Plan	E.g. a sketch plan covering all levels, annotated with measurements, areas and		
Site notes – paper or electronic file	showing the HLP. The DEA shall provide within the site notes anything used in support of decision making, reflective thought, or amendments to recommendations (identifying property age, construction, assessing primary heating system etc), which is not provided through other sources of evidence.		
 Photographic evidence requirements. Minimum Requirements; Front elevation Rear elevation Side elevation for detached / semi-detached Cavity Wall Insulation – evidence Roof construction Openings – windows, chimneys etc (if previous photographs don't provide sufficient evidence) Primary Heating System (e.g. boiler showing any associated key features such as a condensate pipe or label indicating the boiler model) Secondary Heating System Loft Insulation – photograph which gives evidence of the depth of insulation Evidence of wall thickness Conservatory – photographs are required by Schemes to support site notes, including; Heating System control system Hot water cylinder and stat Electricity and gas meters LPG Cylinder Fixed Low energy light fittings Marker and site of the building or limitation whose presence or absence 	Where the DEA believes that photographs are not practically achievable, but a praticular element / anergy using device is present, site notes shall explain why the photographic evidence is not available. QA Assessors shall assess, and record, their views as to whether the reason given is credible. In such instances the Scheme shall investigate whether there has been a trend in non-provision of information, and undertake further investigations if such trends are identified. Photographs shall be dated within the image to provide some reassurance that they relate to the property being assessed and the date of the assessment. Electronic files shall be acceptable if there is a reasonably secure means of dating the file. Photographs embedded in e.g. WORD files or otherwise altered to reduce file size for transmission purposes shall be dated within the image. The master images shall be dated within	(affect the SAP rating) Any other feature which supports a dam in the report that could be quened or be the subject of a complaint Evidence that inspection of a particular element which has a significant impact on the SAP score (taken as meaning having an impact of more than one SAP point) is impractical.	As a minimum Schemes shall stipulate requirements to provide site notes or oth evidence explaining why key elements associated with the SAP calculations has not been undertaken – for example if access to a loft is said to be not available the site notes shall say why, and wherev practicable photographic evidence in support of the assertion be provided. Schemes shall record trends with eviden provided by an EA, such that further investigations are required should a particular EA routinely fail to access a certain building element (eg roof insulatio Examples of this might be a guarantee o building control notice for improvements





Anything outside of this list was previously deemed unimportant or not necessary.

This has now been changed and updated through the new SORs and states that the assessor must supply as much evidence as necessary in order for a third party to replicate the report accurately. So where previously it was not mandatory to take certain images for evidence, ECMK would suggest that if/when the assessor records any piece of data within the report, that data MUST be evidenced in some way, whether that be images, documentation or a site note explanation as to why the data has been recorded in that way.

ECMK understands this will create slightly more work for the assessor but it will also create much more accurate reports moving forward.

Assessors are also required to label and date stamp all evidence images and to only submit relevant images for that piece of data recorded for that particular property which is being assessed.

Many assessors using the Assessor Hub to lodge reports, and sometimes if using Smart Survey and adding additional evidence images, will upload many images, sometimes 30 - 40 images for that particular property. If these are not labelled when called for audit, the audit will fail. A recent MHCLG audit at ECMK noted the fact that many images submitted for audit could not be easily understood or used to reproduce the report within tolerance as these images were not labelled and in some cases not relevant to the report data, this was due to being out of focus or unrecognisable.

If using Smart Survey correctly, the evidence images will not need to be labelled as they will be situated within the relevant sections of the reports System Generated Site Notes. If adding multiple images to the end of the report, please ensure the images are labelled.

Cloned Reports

When a report has been cloned and re-lodged due to an error or mistake within the data entry, if that report is then called for an audit, the assessor must ensure any site notes explanations and relevant evidence images are attached to that new cloned report. The images detailing the mistake or error or any site notes explanation should also be attached to the new report as evidence of any change to the original.

Failure to attach the images for audit due to the images being still with the original incorrect report, will result in a failed audit.





Taking Evidence Images in Context



From this image it is difficult to assess or clarify the property from an auditors point of view



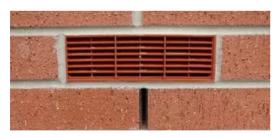
So why not take a step or 2 steps back and take an image showing the property in context.



This image is out of focus and cannot be used as evidence for the boiler identification



This is obviously a much better, much clearer image confirming the boiler make and model



The image taken of the air brick confirms ventilation but it does not confirm where the air brick is situated in comparison to the floor level so an auditor cannot confirm the presence of a suspended floor if this is the only image submitted.



If accompanied with this image showing the property floor type in context, this would be classed as very good evidence images confirming the presence of a suspended non timber floor as the air bricks can clearly be seen below the floor level











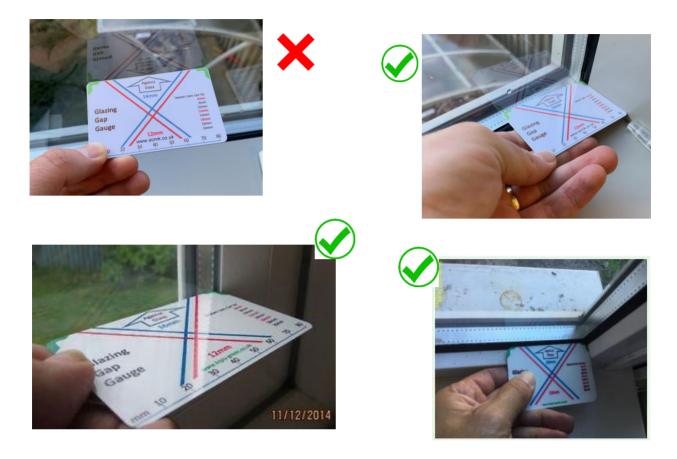
Why a Stamp Test does not work!

This image shows a concrete laid floor with a void below. If an assessor were to complete a stamp test, this would undoubtably suggest this to be a solid floor which would be incorrectly recorded and would fail an audit due to a descriptive error. Please look out for air bricks or the lack of air bricks for evidencing the floor construction correctly.





Glazing Gap Tool & How to Use Correctly



When using the glazing gap card to establish the width of the glazing gap within upvc units, please make sure the tool is used correctly.

By placing the card in the corner of the window unit and following the appropriate line to where it meets the opposite side of the glazing, this will give an accurate indication of the glazing width to be recorded within the software.

Assessors wishing to obtain a glazing gap tool such as the card highlighted, should email into <u>accreditation@ecmk.co.uk</u> and a card will be posted.





DEA SMART rules V1.3 Implementation date is from 1st July 2019 New rules and changes are highlighted in blue

Priority No.	Rule No	Rule
1	23	Any occurrence of 2 or more EPC lodgements for the same UPRN within a 3 calendar month period made by assessors from the same scheme.
2	1	No main heating system present, but mains gas supply available.
3	2	Main building age band is L
4	3	Heating controls of boiler energy manager
5	4	Overridden U-values for the main building walls
6	15	Wall of any building part that has insulation type unknown
7	16	Floor of any building part that has insulation type unknown
8	17	Non-pitched roof or roof room of any building part has insulation type/thickness 'unknown'
9	6	No heating controls present, but main heating system is a gas (incl. LPG) or oil boiler
10	22	Any floor of any building part room height is <1.5m or >4m
11	8	Mechanical ventilation present in property built prior to 2003 (including supply/extract)
12	21	Gas/Oil/LPG boiler main heating system and hot water from electric immersion
13	11	Age band A cavity walls
14	12	No access to main building loft
15	13	No access to HW cylinder
16	14	Multiple lodgements by same assessor on same property within 1 calender month where SAP rating was F or G but is now E or above
NA	5	Dormant - Any building part on any element has insulation type recorded as unknown
NA	9	Gas boiler main heating system and hot water from electric immersion
NA	10	Dormant - Duplicate lodgement of an EPC for the same property within 1 month by the same assessor

Rule 23

Schemes will be auditing any and all properties with 2 or more reports (EPC's) completed and lodged within a 3 month period. Assessors must note that convention 9.03 will need to be adhered to regarding this smart rule.

Convention 9.03 – Lodgement of incorrect EPC

If you lodge an EPC in error and lodge a corrected EPC, inform your accreditation scheme so that the erroneous one can be marked "not for issue".

If you are not the assessor who completed the original report then the initial 9.94 software questions are used to record why another report is required and subsequently lodged if one already exists.

Please note. Assessors across all strands will be exposed to the new audit regime as per the New SORs guidelines meaning less Random audits will be called but these will be replaced by calling more Smart Rule audits to meet current MHCLG requirements.





RdSAP 9.94 Software Glitches & Fixes

Sheltered Alternative Wall

After the new software was introduced to the public on the 23rd September, it was discovered that a few gremlins were situated within the background software.

One such gremlin was the use of the Alternative Sheltered Wall when an unheated corridor was recorded. It was found that this was causing an error message and lodgement was unsuccessful.

We combated this by removing the Sheltered aspect of the Alternative wall and recorded the wall as an alternative wall **only** which required the wall area to be calculated and recorded. We have now removed the gremlin from the background software and the Sheltered aspect can now be recorded without fear of an unsuccessful lodgement.

Cloning Reports

Reports dated pre 9.94 which was prior to Sept 23rd 2019, were being cloned by assessors, remodelled and submitted for lodgement using the new 9.94 software.

This would yield an unsuccessful lodgement with an error message. This was due to the cloning process copying the background data from the previous software version 9.93, as well as the data input by the assessor. This caused some confusion within the calculation tool as it was trying to calculate a 9.94 report which had 9.93 background data corrupting it, causing a failed lodgement.

Many assessors are now aware of the issue surrounding cloning previous reports and will now only clone a report, if necessary, from a post September 2019 original.

PAS 2035 Retrofit Coordinator & Assessor Training

What is it?

A review carried out in 2015 by leading industry experts into how public and privately funded domestic retrofit projects were delivered, resulted in a report "Each Home Counts", which made recommendations covering:

Consumer Protection Advice & Guidance Quality & Standards Skills & Training Compliance & Enforcement Insulation & Fabric Smart Metering Home Energy Technologies Application to Social Housing





From this report, a number of workgroups were started to investigate the way forward in solving these recommendations.

The "Each Home Counts" report is geared to ensure the installed measures are the best and most appropriate for that particular property and its occupants as previous energy efficiency policies were criticized for taking little account of what is best for the home or occupants but to maximise the grant funding mechanism by installing costly and in some cases, unnecessary measures.

Energy Company Obligation was at the heart of this whereby new, energy efficient boilers or heating systems were installed in properties that were not insulated which made little sense. Properties were not checked for suitability before measures were installed which led to failures and in some cases remedial works being carried out to bring the property back to its original state due to bad workmanship and or the properties poor state of repair.

The governments Net Zero commitment by 2050 can only be achieved if each properties full potential is recognised. At present ECO has delivered on average just over 1 measure per household but for Net Zero to be successful and within the timescale set, this needs to be increased to 3 measures per household or dwelling.

PAS 2035 will ensure that consumers receive good advice and that properties are assessed by trained qualified and competent Retrofit Assessors who will consider the condition of the property and its suitability for improvement, not just the energy saving opportunities. This standard will also lay out a medium-term improvement plan for each property, detailing all works which will maximise the energy efficiency potential, including essential maintenance works to uphold the effectiveness and durability of the installed measure.

This will create a much greater chance of meeting the Governments policy within the timescales set. Costs will be reduced as more measures are installed. More preparation work will be required for improving the homes energy efficiency and by making sure only suitable properties have retrofit works carried out this will reduce the cost of failures and remedial works.

Shall I get involved?

Any dwellings requiring energy efficient retrofit works will need to be assessed by a Retrofit Assessor who will collect and provide property information and data for Retrofit Coordinators to enable a relevant improvement plan to be developed.



A little like the Green Deal process, dwellings will be assessed using RdSAP to support the data gathered along with a Property Condition report detailing the suitability of the property for any improvements and an Occupancy assessment after detailed discussions with the client, on how energy is used within that dwelling presently.





From this data, the Retrofit Assessor can determine which installation measures are most suitable for that particular property and also feed this data back to any other parties involved within the PAS 2035 process ie the Retrofit Coordinator amongst other interested parties.

The transition to Retrofit Assessor is quite a simple one if you are already an acting DEA (Domestic Energy Assessor) or GDA (Green deal Advisor). This is due to many of the practices as a DEA being implemented as a Retrofit Assessor, so for example a Retrofit Assessor will need an RdSAP energy report as well as a detailed floor plan accompanied by a full property condition report recording a room by room account of the condition of the properties windows, walls and services etc. A full Occupancy assessment will also be required determining how the property is used and recording fuel bill data.

DEAs are well placed to becoming Retrofit Assessors as the knowledge and experience of carrying out energy assessments is forefront in the retrofit Assessor Training.

Dates available to book:

Maidstone	Thursday 5 & Friday 6 December 2019
Warrington	Wednesday 15 & Thursday 16 January 2020
Leeds	Wednesday 12 & Thursday 13 February 2020
Durham	Thursday 26 & Friday 27 March 2020

For further information regarding the RetroFit Assessor Training please visit <u>https://www.ecmk.co.uk/training-courses/retrofit/retrofit-assessor-training/</u>

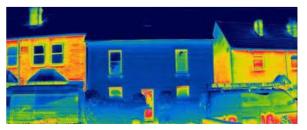
Retrofit Coordinator

In order to comply with PAS 2035, all retrofit projects will be required to be managed by an approved Retrofit Coordinator, responsible for overseeing the assessment of dwellings as well as the subsequent specification, monitoring and evaluation of energy efficient measures. The Coordinator will also manage the retrofit project from inception to completion, liaising with all parties involved, ensuring effective project management. The building owner, Retrofit Assessors, Designers and Installers will all need to be a part of the overall development process to ensure a smooth retrofit package is installed in accordance with the PAS 2035 process.

The retrofit Coordinator will compile a risk assessment for each dwelling, as well as a project plan complete with a medium term improvement and maintenance plan covering a 30 year period from the installation of any retrofit measures.

Professionals from a range of backgrounds can ultimately train to become a Retrofit Coordinator and can then specialise in delivering whole house retrofit projects under the PAS 2035 guidance which is fully backed by TrustMark and the Governments 2050 Net Zero commitment. Demand within this area for qualified individuals, Coordinators and Assessors, will increase over time and with greater knowledge and exposure to the PAS 2035 derivative.

For further information regarding the RetroFit Coordinator Training please visit <u>https://www.retrofitacademy.org/</u>

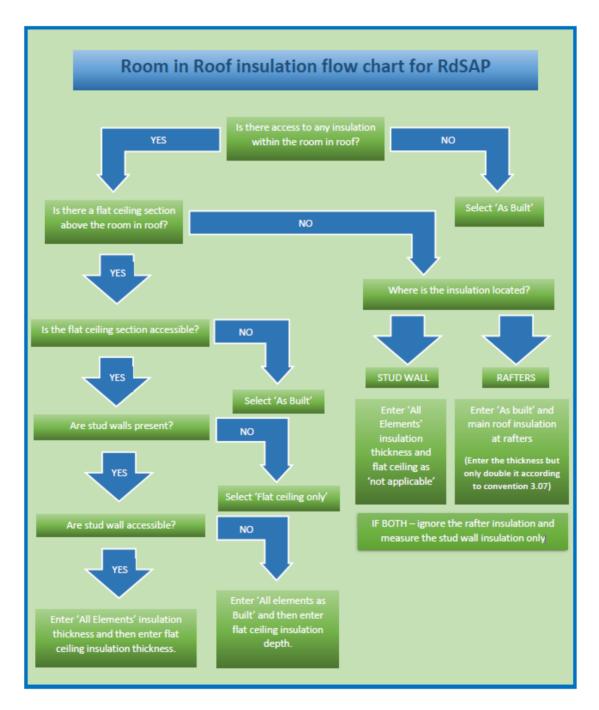




RETROFIT



Rooms in Roof using U Values



At present Energy Assessors cannot use U Values without being a SAP Assessor or acquiring these U Values from an appropriately qualified person or company.

With the introduction of the new DEA Conventions version 11, this has now changed as Assessors are now permitted to use U Values in order to better and more accurately record the existing insulation within each section of the Room in Roof.

To make use of this function correctly, assessors will need to acquire data from each section of the Room in Roof including insulation type and depth, then using the Appendix 4 table, record the appropriate U Value.



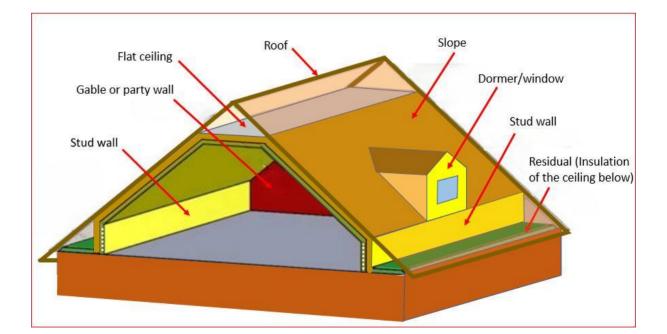


The minimum data set required to use this function is:

Stud wall data - Sloping Ceiling data - Flat Roof data - Gable End / Party Wall data

If any of these data sets are missing or cannot be recorded or assessed, then this section of RdSAP will not complete and allow you to move to the next section. If any data sets are missing, then we advise all assessors to use the "As Built" option and not to open the extended information part of that Room in Roof section





the U-Value for that particular section.





Appendix 4. Rooms in Roof - U-values applicable to room in roof insulation

Insulation thickness at joists (mm)	Slope u-value		Flat ceiling u-value		Stud wall u-value	
	Mineral wool or EPS slab	PUR or PIR	Mineral wool or EPS slab	PUR or PIR	Mineral wool or EPS slab	PUR or PIR
None	3.85	2.43	1.68	1.68	3.13	3.13
12	1.91	1.23	1.18	1.04	1.79	0.71
25	1.24	0.82	0.9	0.75	1.23	0.56
50	0.77	0.52	0.62	0.51	0.78	0.41
75	0.56	0.39	0.5	0.39	0.59	0.34
100	0.45	0.31	0.41	0.32	0.48	0.29
150	0.33	0.24	0.33	0.26	0.29	0.24
200	0.23	0.16	0.23	0.16	0.21	0.16
250	0.18	0.12	0.18	0.12	0.17	0.12
270	0.16	0.11	0.17	0.11	0.16	0.11
300	0.15	0.1	0.15	0.1	0.14	0.1
350	0.13	0.08	0.13	0.09	0.12	0.08
>400	0.11	0.07	0.11	0.07	0.11	0.07

Key:

EPS - expanded polystyrene slab PUR - polyurethane rigid insulation PIR - polyisocyanurate rigid foam

Assumptions used for calculating U-values:

Up to 150 mm, the insulation is between timber (rafters or studs) Timber fraction is 12%

After 150mm, the next layer of insulation is continuous

0.04 W/mK – thermal conductivity of mineral wool slab or EPS slab 0.025 W/mK – thermal conductivity of PUR or PIR slab

Notes:

1. U-values from this table can be used for elements of rooms in roof only when the type of insulation and its thickness are known (evidence required)

2. Use the actual thickness of insulation (do not double insulation thickness if thermal conductivity is 0.025 W/mK)





Non-Domestic: Audit Checklist

		Yes/No
Data File	Not an xml file	
Site Notes	Please sign your site notes	
Google Image arial view		
Weather location evidence		
Floor plan – zoned		
Photographs	All elevations	
Photographs	Are they date stamped	
Photographs	Are they notated for audit purposes	
Photographs	Demonstrating all wall construction types.	
	The presence or not of insulation	
Photographs	Demonstrating internal activities/spaces	
Photographs	glazing types and frames	
Evidence	different door types	
Photographs	shading types	
Photographs	extract in each space	
Photographs	roof & or roof lights	
Photographs	all Hvac types	
Photographs	Hvac	
Photographs	heating controls	
Photographs	local exhaust units	
Hvac data plates		
Photographs	Hvac in each space	
Photographs	demonstrating the full range of lighting in	
	each zone	
Supplementary calculations	Ie Window aspect ratio & frame factor,	
	extract rates, envelopes	
Evidence	Seasonal Efficiency Data Plate	
	Seasonal Energy Efficiency Ratio (SEER)	
	Energy Efficiency Ratio (EER)	
Photographs	Heating Controls	
Evidence	Type of fuel (Oil/Biomass)	
Photographs	Hot Water Details/Dataplate	
Calculation	Hot water standing losses	
Evidence	Pump power, Secondary circulation	
Evidence	low carbon technologies	
Evidence	Power factor correction	
Evidence	Specific fan power rates	
Evidence	Ventilation rates	
Photographs	Chillers/AHU's/Cooling towers	
Site Notes	Recommendations	
	Are they relevant	
Site Notes	Reflective thought	
Evidence	Unusual features	





Christmas Quiz CPD with Peter: Friday December 20th @ 3:00pm



All things RdSAP covered within this festive quiz and your last chance to utilize any free CPD hours left for this year!

Please note that you have until the end of 2019 in which to use your 4 free hours of CPD – these cannot be carried over to 2020 however you will have another 4 free hours allocated to you to use for 2020.

Email training@ecmk.co.uk to book your remaining free hours for 2019!

Our last CPD for 2019 is on December 20th – The Christmas Quiz !

See you there!

Christmas & New Year Opening Times

Over Christmas and New Year our Client Support Services opening hours are as follows:

Mon 23 rd Dec
Tues 24 th Dec
Wed 25 th Dec
Thurs 26 th Dec
Fri 27 th Dec
Sat 28 th Dec
Sun 29 th Dec
Mon 30 th Dec
Tues 31 st Dec
Wed 1 st Jan
Thurs 2 nd Jan

0800 - 1600 Closed 1000 - 1600 Closed 1000 - 1600 1000 - 1400 Closed 0800 - 2000

0800 - 2000

Christmas Eve Christmas Day Boxing Day

New Year's Eve New Year's Day



We would like to take this opportunity to wish all our customers a Merry Christmas and a Prosperous New Year!





Customer satisfaction survey

Assessors are reminded that as part of the new Scheme Operating Requirements, assessors are required to obtain the email address of customers to allow the scheme to ensure assessors are adhering to the Code of Conduct by sending the customer a feedback form to complete online.

Lodgement of Incorrect EPC's

Assessors are reminded of convention 9.03 in relation to notifying the scheme of an incorrect or defective EPC lodged at Landmark.

Convention 9.03 - Lodgement of incorrect EPC:

If you lodge an EPC in error and lodge a corrected EPC, inform your accreditation scheme so that the erroneous one can be marked 'not for issue'.

Assessors must email <u>audit@ecmk.co.uk</u> with the RRN of the incorrect EPC and the RRN of the replacement EPC.

EPCs will not be removed from the register unless a replacement EPC has been lodged and the RRN supplied to the scheme.

If you do have any further questions or queries then please contact us via email support@ecmk.co.uk





Upcoming Training and CPD

Click the following link to view the training calendar: <u>http://www.ecmk.co.uk/training/</u>

		Cost (+ vat)*
Webinars	December	
Updated: SORs, RdSAP 9.94, Conventions and Smart Audits explained	Tues 3 @ 0830-0930	£15.00
Heating Controls	Fri 6 @ 1600-1700	£15.00
Updated: Plan Up Floor Plan ** NEW **	Tues 10 @ 1500-1600	£15.00
Updated: SORs, RdSAP 9.94, Conventions and Smart Audits explained	Wed 11 @ 1300-1400	£15.00
Lighting & Storage Heaters	Fri 13 @ 1600-1700	£15.00
Rooms in the Roof	Wed 18 @ 1600-1700	£15.00
Christmas Quiz – Last CPD Webinar of 2019	Fri 20 @ 1500-1600	£15.00
Courses	2019 / 2020	
PAS2035 Retrofit Coordinator 2 Day Bootcamp, Maidstone	Thurs 5 & Fri 6 Dec	£1199.00
PAS2035 Retrofit Coordinator 2 Day Bootcamp, Warrington	Wed 15 & Thurs 16 Jan	£1199.00
PAS2035 Retrofit Coordinator 2 Day Bootcamp, Leeds	Wed 12 & Thurs 13 Feb	£1199.00
PAS2035 Retrofit Coordinator 2 Day Bootcamp, Durham	Thurs 26 & Fri 27 March	£1199.00

*Costs listed are for ecmk members

Click <u>here</u> to find out more and to book your place!

If you are looking for something more bespoke, we can deliver courses nationwide.

For further information, more course dates and to book your place: Email: <u>training@ecmk.co.uk</u> or Visit: <u>www.ecmk.co.uk/training</u>

4 hours 0

All ecmk members are entitled to 4 hours free CPD every year. Call 0333 123 1418 to make your claim and ask about our CPD courses.

