

Unit 210: How to communicate with others

Outcome 2

**How to apply information
sources in the building
services industry**

Information sources

There are many forms of legislation that you and your employer must be aware of and follow.

They have been produced to aid the running of a successful business and benefit the relationship between employer and employee.

Information sources

Legislation

Data Protection Act

This gives everyone the right to know what information is being held about them and makes sure the data is handled properly.

Freedom of Information Act

Allows access to the information about you.

Equal Opportunities

Equality Act; Sex Discrimination Act; Equal Pay Act; Race Relations Act; Disability Discrimination Act.

Information sources

To be a successful plumber, it is important to know your job. This partly comes from experience and partly from knowing where, and how, to access information about your work.



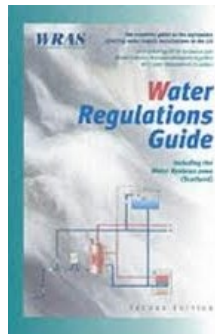
Information sources

Regulations

Plumbing is one of the most regulated trades within BES. Failure to comply with regulations can result in prosecution with fines or prison sentences. These are **mandatory**.

- Water Supply (water fittings) Regulations
- Gas (installation and use) Regulations
- Building Regulations

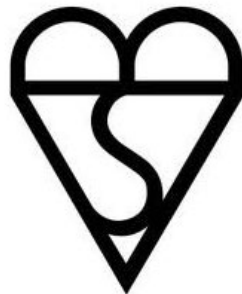
Each of these will be discussed within their area.



Information sources

British Standards

- These offer guidance on interpreting and following the regulations
- They are not enforceable, but set out the minimum standard to comply with the regulations – so by complying it will be seen to satisfy the regulations
- British Standards are **not** a primary source of information when installing appliances and can be overridden by manufacturers' instructions
- BSI stands for British Standards Institute
- BS kitemark



Information sources

British Standards approved documents

Part A:	Structure (notching and drilling of joists)
Part B:	Fire safety
Part C:	Site preparation and resistance to moisture
Part D:	Toxic substances
Part E:	Resistance to the passage of sound
Part F:	Ventilation
Part G:	Sanitation, hot water safety and water efficiency (G3 states water must not exceed 100°C)
Part H:	Drainage and waste disposal
Part J:	Combustion appliances and fuel storage systems
Part K:	Protection from falling, collision and impact
Part L:	Conservation of fuel and power (SEDBUK and primary pipework insulation next to cylinder of 1 metre)
Part M:	Access to and use of buildings
Part N:	Glazing (safety relating to impact, opening, cleaning)
Part P:	Electrical safety

Information sources

British Standards approved documents

Building Regulations part L
Part L F(N) – Northern Ireland

Conservation of fuel and power in:

- **L1a:** New dwellings
- **L1b:** Existing dwellings
- **L2a:** New buildings other than dwellings
- **L2b:** Existing buildings other than dwellings

Information sources

British Standards approved documents

Building Regulations part P

- Under this regulation you do not, as a plumber, have to be part P qualified to replace a like-for-like component, unless it is in a **danger** zone
- A danger zone is within a bathroom, kitchen or outhouse. If an airing cupboard door is on the landing it is not a danger zone, but in the bathroom it is. If the boiler is in the loft it is fine, but in the kitchen it is not. To replace parts on these items in these locations you need to be a part P qualified plumber
- Under part P you can install a single fused spur or replace damaged appliance cable

Information sources

Codes of practice

- Approved codes of practice are produced by BSI as a guide to following the standards
- They specify what is considered to be good practice in the trade area, but in themselves are not a legal document
- They cover both BS and BS EN standards



Information sources

Manufacturers' guidance

The manufacturers' installation, servicing, maintenance and user instructions are some of the most important documents you will access. Guidance must be followed or:

- Warranty could be void
- Installation could be dangerous
- Inadvertently be breaking a regulation

Manufacturers' instructions **must** be followed at all times, even if they contradict the regulations and BS.

Information sources

Greenstar Ri

WALL HUNG GAS-FIRED BOILER

FOR OPEN VENT & SEALED CENTRAL HEATING SYSTEMS & INDIRECT FED DOMESTIC HOT WATER



THIS APPLIANCE IS FOR USE WITH:
NATURAL GAS OR LPG (Gas 8 614P TYPE C1a & C2a)

NATURAL GAS: 24 RI GC NUMBER 41-011-05
10 RI GC NUMBER 41-011-77
15 RI GC NUMBER 41-011-75
12 RI GC NUMBER 41-011-05
24 RI GC NUMBER 41-011-05
10 RI GC NUMBER 41-011-70
12 RI GC NUMBER 41-011-70
12 RI GC NUMBER 41-011-64

LIQUID PETROLEUM GAS:

USER INSTRUCTIONS & CUSTOMER CARE GUIDE



GENERAL NOTES

BOILER CLEARANCES - UNVENTILATED COMPARTMENT

The diagrams opposite show two options for the minimum space required to install and service the boiler inside an unventilated compartment.

** Space required for unventilated areas with a removable door or panel.

*** 600mm clearance required to a fixed surface for servicing.

* This space can be reduced to 50mm for one side only provided that the side clearances add up to the total of both the side measurements shown or more.

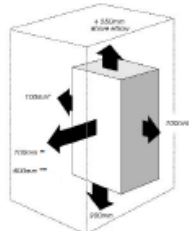
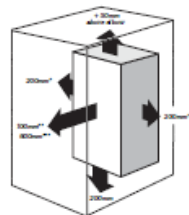
VENTILATION

This is a room sealed appliance and does not require any air for combustion from inside the property. If the appliance is fitted into a cupboard or a compartment built around the appliance after installation, then the compartment must be separated from the boiler space by a perforated non-combustible partition as described in BS 6700.

Notwithstanding the requirements of BS 6700 and BS 5440 there is no need for ventilation openings to be provided in the compartment because of the low heat loss from the appliance casing, if the clearances shown are maintained.

PUMP ANTI-SEIZURE

If there has been no heating demand for 24 hours the boiler will run the system pump for a few seconds to reduce the possibility of pump seizure during long periods of inactivity, which is usually more frequent during the summer months.



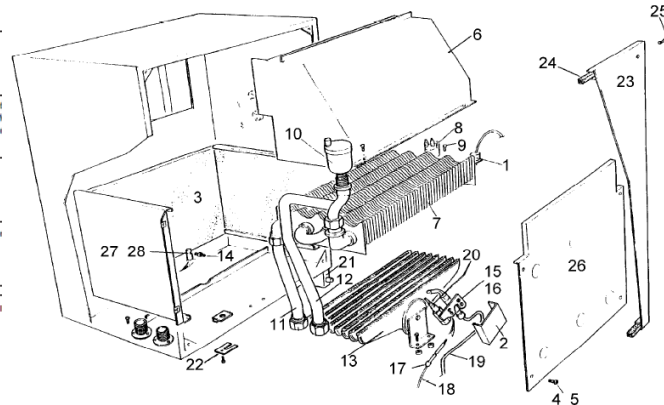
FAULT FINDING

Problem	Cause	Remedy
Desired room temperature is not reached	Thermostatic radiator valve(s) set too low	Increase thermostatic radiator valve setting(s)
	Temperature control for CH flow on boiler set too low	Increase CH flow temperature control setting
	Air trapped in heating system	Bleed radiators and, if fitted to a sealed system, recharge heating system
Desired room temperature exceeded by large amount	Radiators are too hot	Turn down thermostatic radiator valves / room
Temperature rises instead of falling	Clock is incorrectly set	Check setting
No on/off indicator	Momentary power failure	Switch off appliance at master switch, wait a few seconds then switch it again
Hot water temperature too low	Cylinder thermostat temperature set too low Programmer setting Diverter valve	Check setting
Hot water temperature too high	Cylinder thermostat set too high Diverter valve	Adjust cylinder thermo

YOUR GUARANTEE

This appliance is guaranteed against faulty material or workmanship for a period of 2 years from the date of installation subject to the following terms and conditions:

- During the period of this guarantee any components of the unit which are proven to be faulty or defective in manufacture will be exchanged or repaired free of charge by BBT Thermotechnology UK Ltd.
- The householder may be asked to prove the date of installation, that the appliance was correctly commissioned and, where appropriate, the first years service has been carried out to the satisfaction of BBT Thermotechnology UK Ltd. when requested. These should be part of the Benchmark checklist.
- Any product or part returned for servicing under the guarantee must be accompanied by a claim stating the model, serial number, date of installation.
- BBT Thermotechnology UK Ltd will not accept responsibility for damage caused by faulty installation, neglect, misuse or accidental damage or the non observance of the instructions contained in the Installation and Servicing Manual and users instructions.
- The appliance has been used only for normal domestic purposes for which it was designed.
- This guarantee applies only to equipment purchased and used in the United Kingdom. This guarantee does not affect your statutory rights.



WORCESTER BENCHMARK GREENSTAR Ri
R 716 130 (RMA, EN604)

FAULT F1

Information sources

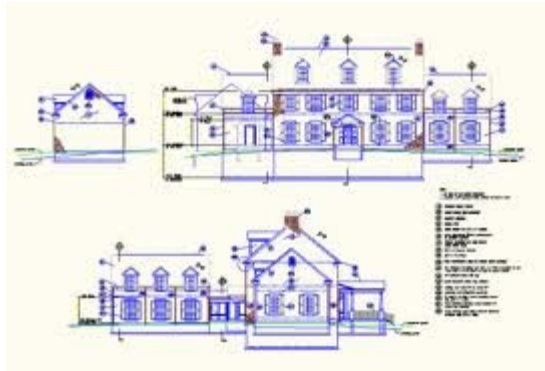
Other information

- Water Regulations 1999 Waste, Misuse, Undue consumption, Contamination, Erroneous measurement
- Insulate pipework in vulnerable places so pipes can't freeze then burst, so wasting water
- Building Regulations part L requires all pipework within 1 metre of the cylinder to be insulated
- SAP – Standard Assessment procedure covers the controls on a central heating system
- CHeSS – ensures best practice (Central Heating Efficiency System Specification)
- HHIC – Heating Hot water Industry Council: advice on installation practice to gas installers CORGI – gas safe
- Installations can be signed off under the **competent** persons scheme

Information sources

Information in the workplace

No construction site can function without certain documentation, along with the day-to-day paperwork associated with an active site.



<h2 style="margin: 0;">Feature Furniture Supplies</h2>																																					
<small>Feature Furniture Supplies Ltd (UK) Registered Office: Birmingham, B4 7 8JL, England (England) Email: info@featurefurniture.co.uk Tel: +44 (0)121 461 0101 Fax: +44 (0)121 461 0102 V.A.T Reg No: 145 0750307 Company Reg No: 0400002 </small>																																					
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Information sources

Timesheets

These are completed by individual employees on a weekly basis. They contain details of hours worked, description of work carried out, and at which site. They are used to calculate wages and used for future estimates.

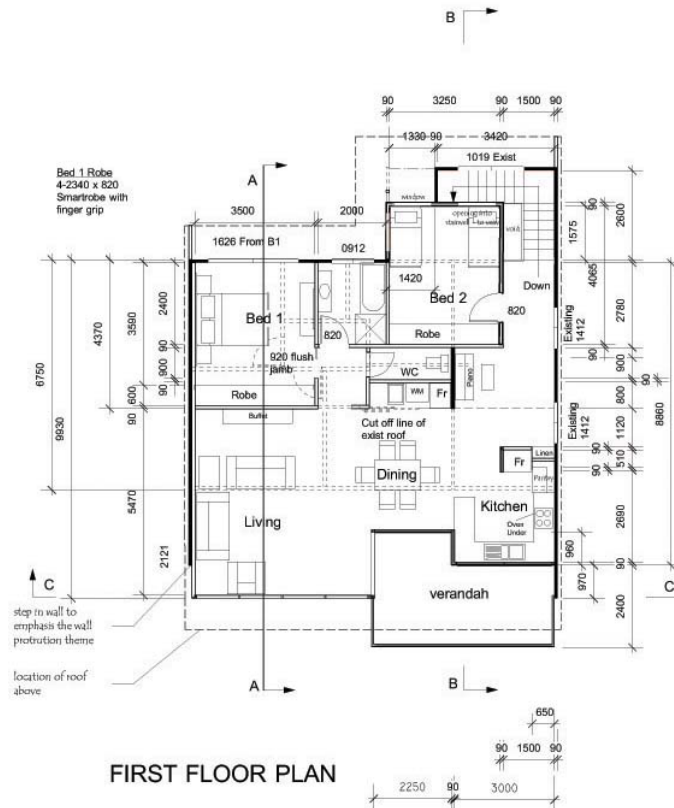
Job specification

A description of the installation being quoted for, containing the materials and appliances.

Information sources

Working drawings

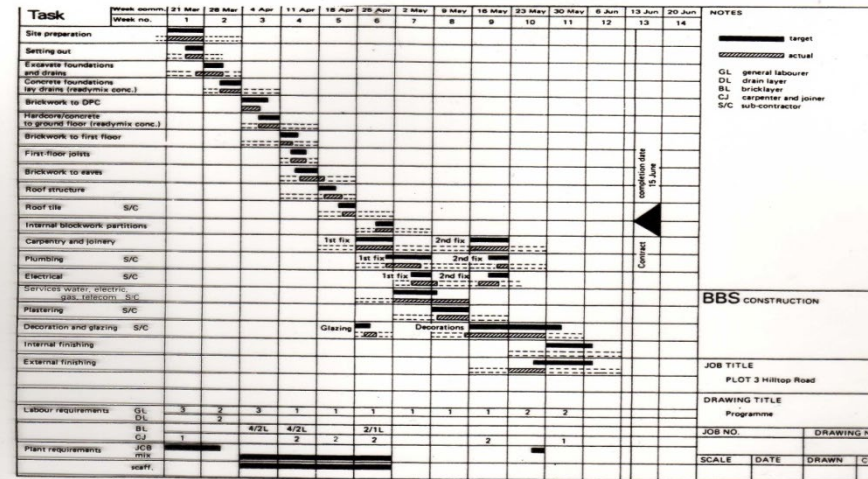
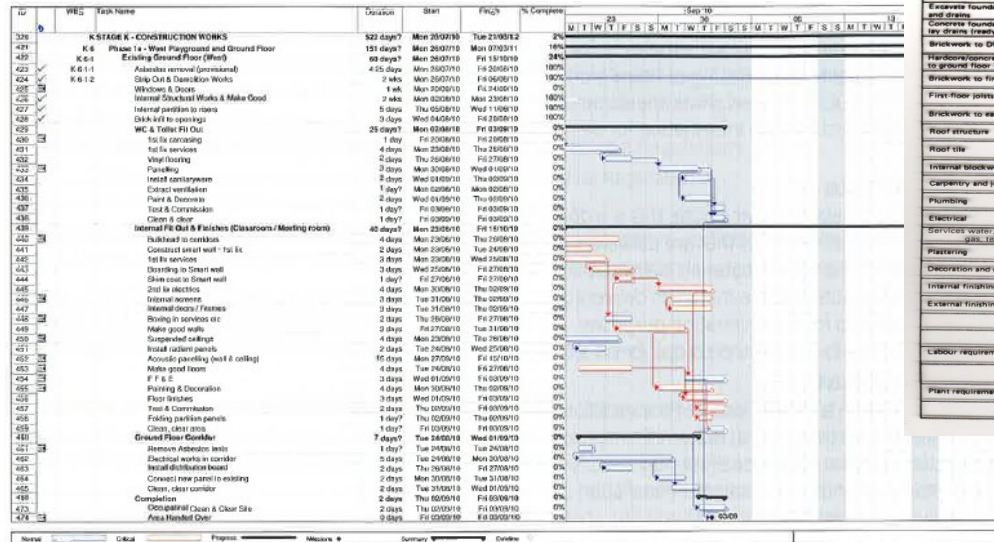
These are plans, elevations and details needed by the contractor – along with the specification – to enable them to carry out the work.



Information sources

Work programme

This shows the progress of the work on site, indicating a clear start and finish date for each of the trades and the activities they should be doing (time-activity).



Information sources

Policy documentation

Health and safety file: Completed under CDM and a legal requirement.

Customer care policy: Good customer care makes loyal customers. Response times to enquiries, reliability, courtesy, recording information, complaints procedure, consultations, reviews, service agreements.

Environmental policy: Prevent and reduce harmful effects on the environment, resources and wildlife. Lower pollution rates, energy efficiency, environmental impact, use of natural resources.

Information sources

Delivery note: Lists the type and quantity of materials delivered to site and needs to be checked when the delivery is made. It is only signed if correct. A copy is retained.

Quotation/estimate: Both show prices: a quotation is fixed in price; an estimate may vary and is flexible. These are given to the customer or buyer.

Invoice: Issued at the end of a contract requesting payment and can be supplier to contractor, or contractor to customer. Normally a period of time is allowed for payment to be made.

Information sources

Statutory rights to cancel: Legislation allows a customer the right to cancel, providing work has not started and is within a set timeframe.

Handover information: At the end of a contract the customer/client **must** be given certain information. In large contracts this includes the health and safety file.

- Manufacturers' instructions
- Benchmark certificate
- Warrantee
- Contact numbers
- Be shown around the installation; how to use/set items

Information sources

Company policies and procedures

They highlight what is important to the company and the company's image. Well-written policies allow employees to understand their role and responsibility to the organisation.

Behaviour: Attitude and professionalism towards the customer.

Timekeeping: Customers do not tolerate lateness. If unavoidable, the customer should be informed early on.

Information sources

Company policies and procedures

Dress code: Company uniform may be required to present a positive and professional image.

Contract of employment: A contract between the employer and employee. It forms the basis of the employment relationship and is made when the offer of employment is accepted.

Information sources

Limits to personal authority

Plumbers follow set patterns with regards to the role and responsibilities they have. At each level there is a certain level of expectation placed on the person by management: the higher the qualification, the greater the responsibility.

Information sources

Limits to personal authority

Apprentice: Little responsibility as they are learning. As they progress, they may be asked to carry out simple installation or maintenance operations, under continual supervision.

NVQ L2 qualified domestic plumber: Be able to carry out simple installations in hot, cold and central heating installations. They should work under their own initiative with little supervision.

Information sources

Limits to personal authority

NVQ L3 qualified domestic plumber: More responsibility with no supervision. They will be gas qualified, capable of running their own jobs, install unvented appliances and work with gas, water and Building Regulations.

Plumbing supervisor: Will have many years of experience and be able to design and install many systems with a working knowledge of the regulations. They will have good managerial and organisational skills. They may have qualifications up to L5. They have responsibility for operatives under their supervision.