

WA2: Office Equipment and Technology

3.1 Use of office equipment to carry out tasks and to solve problems



Module Details



Work Area Code:	2
Work area title:	Office Equipment and Technology
Unit Code:	3.1
Unit Title:	Use of office equipment to carry out tasks and to solve routine problems
Learning Outcomes Ids:	LO39, LO40, LO41
Learning Outcomes titles:	Demonstrate ability to use common office equipment such as photocopiers, printers and faxes, according to the organisational procedures in order to perform specific and more advanced tasks; recommend improvements to procedures. (LO39) Demonstrate ability to solve problems with office equipment using tools such as checklists and, where necessary, asking help from colleagues. (LO40) Demonstrate ability to explain how to identify repairs needed to the facilities and equipment of an office; describe procedures for dealing with repairs needed; explain the types of problems that arise with the use and supervision of office facilities and equipment, and how to deal with them. (LO41)
Recommended Duration:	3 hours
Trainer:	



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Types of common office equipment:

- Telephones, switch boards
- Fax-machines
- Printers
- Scanners
- Multifunctional devices
– office stations



Types of common office equipment:

- Binders
- Shredders
- Projectors
- ...



Telephones, telephone stations and switchboard systems



A private branch exchange performs concentration of central office lines and provides intercommunication between a large number of telephone stations in the organization.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Telephones, telephone stations and switchboard systems



The intercommunication aspect of private branch exchange allows two or more stations to directly connect while not using the public switched telephone network, thus saving substantial amount of costs



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Advanced functions:

- Automatic call distributor
- Automatic ring back
- Call blocking
- Call forwarding on busy or absence
- Call logging



Telephones, telephone stations and switchboard systems



Advanced functions:

- Call transfer
- Call waiting
- Conference call
- Custom greetings



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Telephones, telephone stations and switchboard systems



Advanced functions:

- Do not disturb (DND)
- Interactive voice response
- Music on hold
- Shared message boxes (where a department can have a shared voicemail box)



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Telephones, telephone stations and switchboard systems



Advanced functions:

- Voice mail
- Voice message broadcasting
- Welcome message



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Participants in a conference call will join in by dialling a given number which will then have access codes that need to be dialled in. This will connect to a 'conference bridge', which is a specialised type of equipment that links telephone lines.

Businesses usually use a specialised service provider which maintains the conference bridge or provides the phone numbers and PIN codes that participants dial to access the meeting or conference call. As well as using normal telephones, there are also specially designed phones for conference calling.



- A fax machine can send and receive documents that include text and images simply at the push of a single button.
- The advantage of a fax machine over an email is that it takes a physical document from the sender and transmits it in physical form to the receiver.



There is no need to scan the document before sending it, nor do you have to print it off when you receive it - both of which you would have to do with e-mail.

This is because the fax machine basically is a scanner, modem and printer all in one unit, which cuts down on your need for all of these machines.



- create presentation materials for both internal and external use
- simple, inexpensive and effective
- manual punch VS electric punch
- Wire/comb/ thermal/ 2in 1



Cutters and shredders

- Paper cutter



- Paper shredder





- also called a digital projection display system
 - specialised computer display that projects an enlarged image onto a screen.
 - used for meetings or presentations where it is important to share detailed information with an audience and is usually attached to a PC.
 - It may also project three-dimensional (3-D), interactive, full-motion audio-visual files on a PC screen.



- **Projector set up functions**

- Correct positioning
- Connecting to the computer
- Setting up the image (size, aspect ratio, sharpness)
- Audio settings
- Energy saving (blank button)
- Bulb replacement
- **! Beware of overheat danger**





- a communications technology that is used to integrate video - the visual image - and voice to connect users from different locations with each other in real time.
 - allows transmission of natural conversations.
 - Communications can be as simple as a conversation between two people at different sites or involve several sites and groups of people in large rooms.





- can also be used to share documents and information displayed on a computer screen and whiteboards.
- Required Components
 - Video input - Video camera or webcam
 - Video output - Computer monitor, television or projector
 - Audio input - Microphones, CD / DVD player, cassette player or any other source of preamp audio outlet
 - Audio output - Usually loudspeakers associated with the display device or a telephone
 - Data transfer - Analogue or digital telephone network, LAN or Internet





- Office stations can act as:
 - Printers / Photocopiers/
 - Scanners
 - Binders
 - Fax machines
- Allowing us to perform
 - a large scale of
 - regular and specific tasks



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

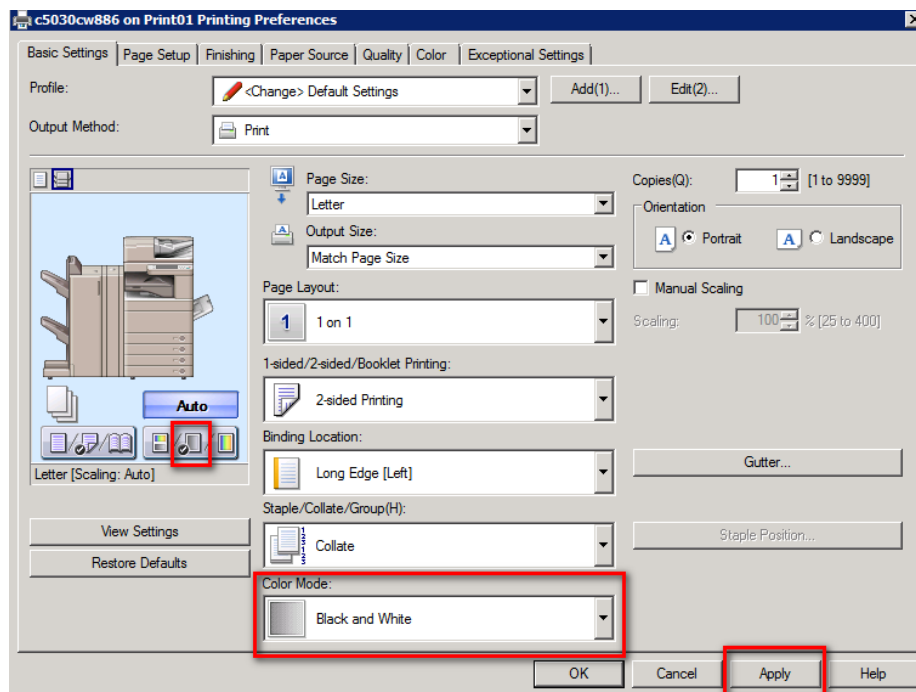
- **Specific tasks**

- Color VS BW
- Paper size/type
- Printing multiple pages per sheet
- 2 sided printing
- Printing booklet
- Rotating the image 180 degrees
- Image quality and toner saving



Printing

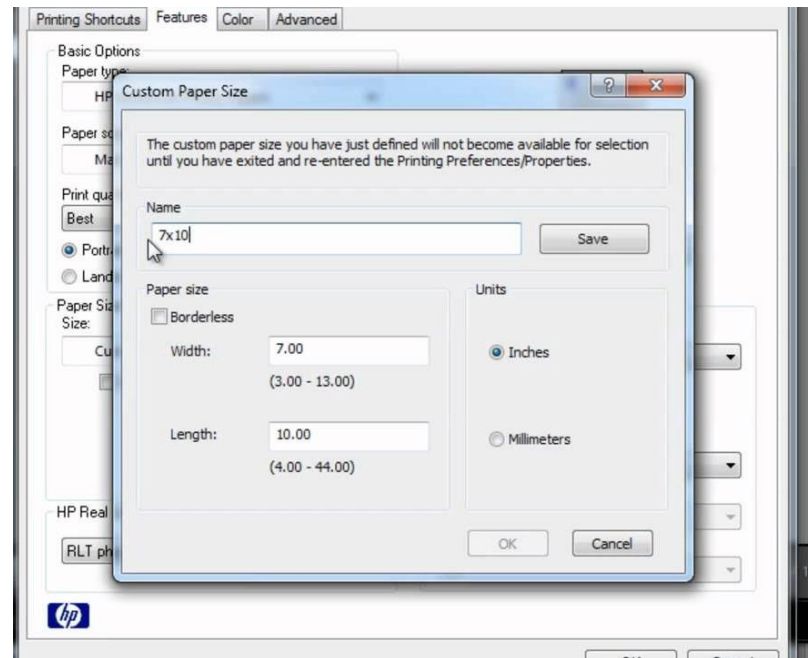
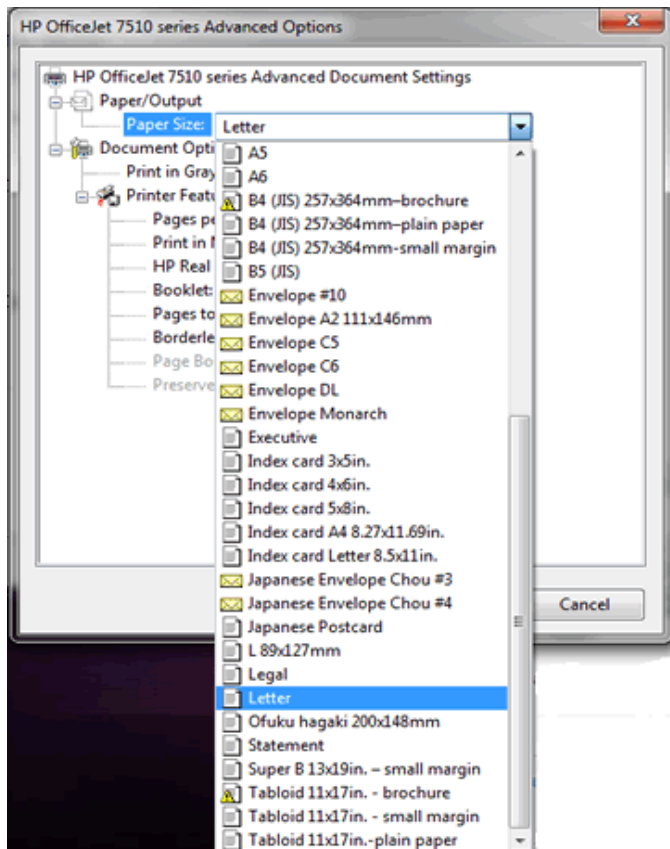
- Color VS B&W Print - always consider the price!



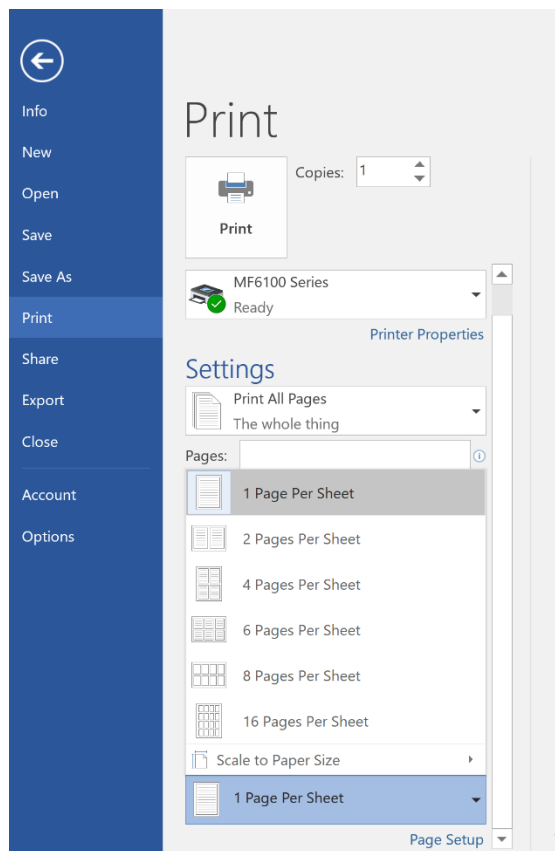
Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

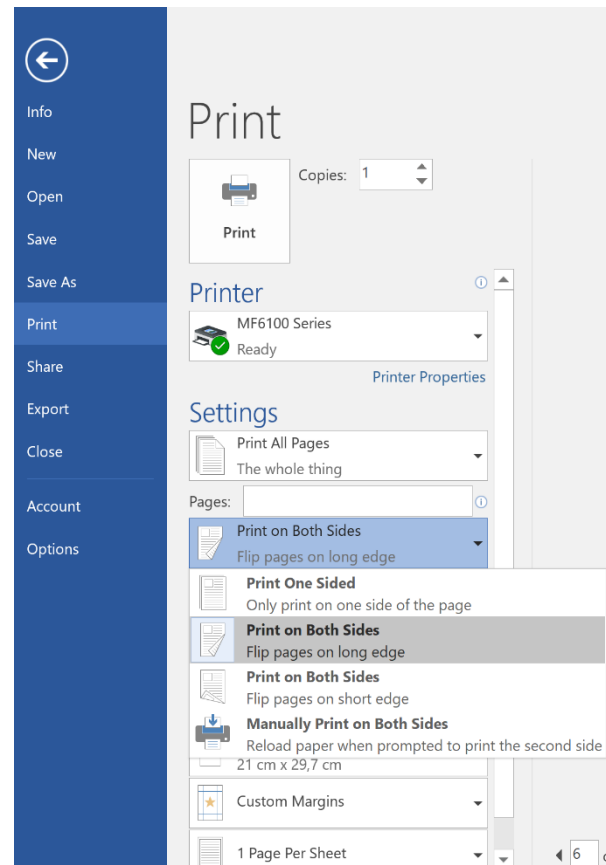
Paper size



More pages per sheet



Double sided printing

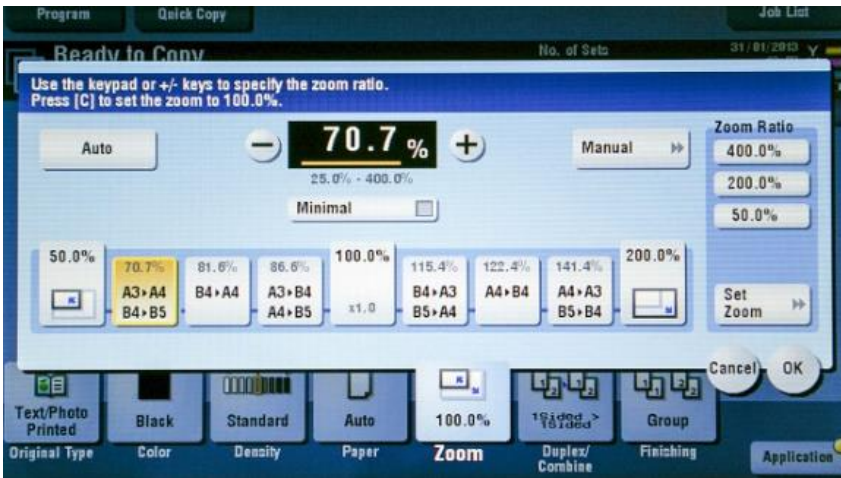


Specific tasks related to photocopying:

- Zoom in/out
- Copying multiple pages to 1 page
- Using feeder
- Different page sizes and types
- Adjusting quality/contrast



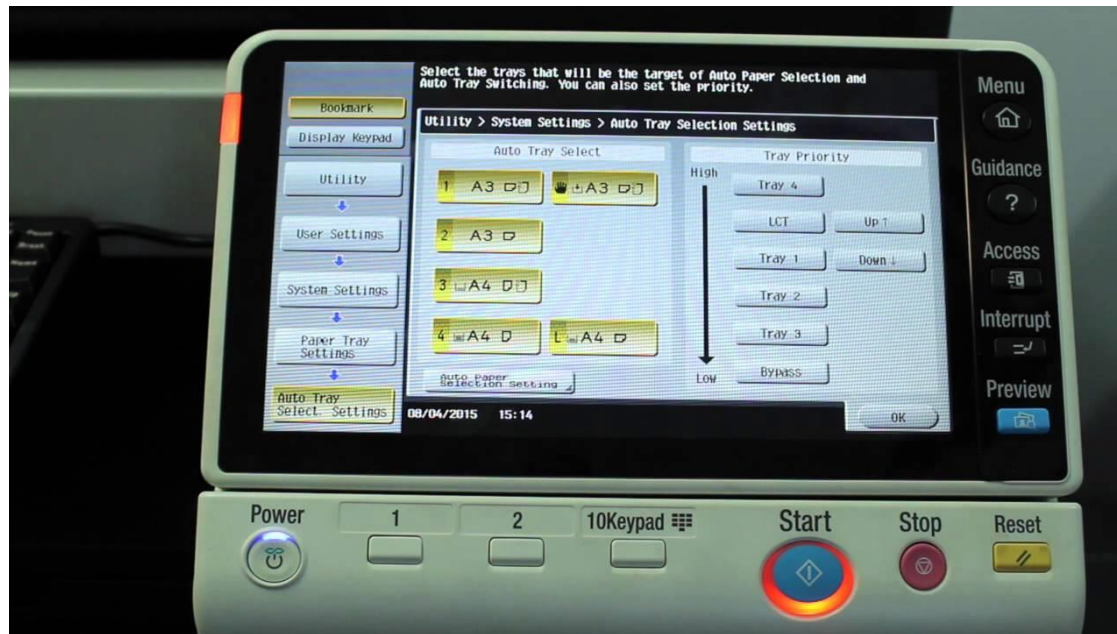
Changing aspect ratio (zooming in and out)



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Tray selection







- Specific tasks related to scanning:

- “Send to” function – saves document to server, flash drive or sends via email
- Type of the document (jpeg, pdf,...)
- OCR scanning
- 2 sided documents scanning
- Scan quality/resolution/size setup



OCR = Optical character recognition

Enables you to scan directly to searchable document, usually in word or pdf - OCR software needs to be present as well!

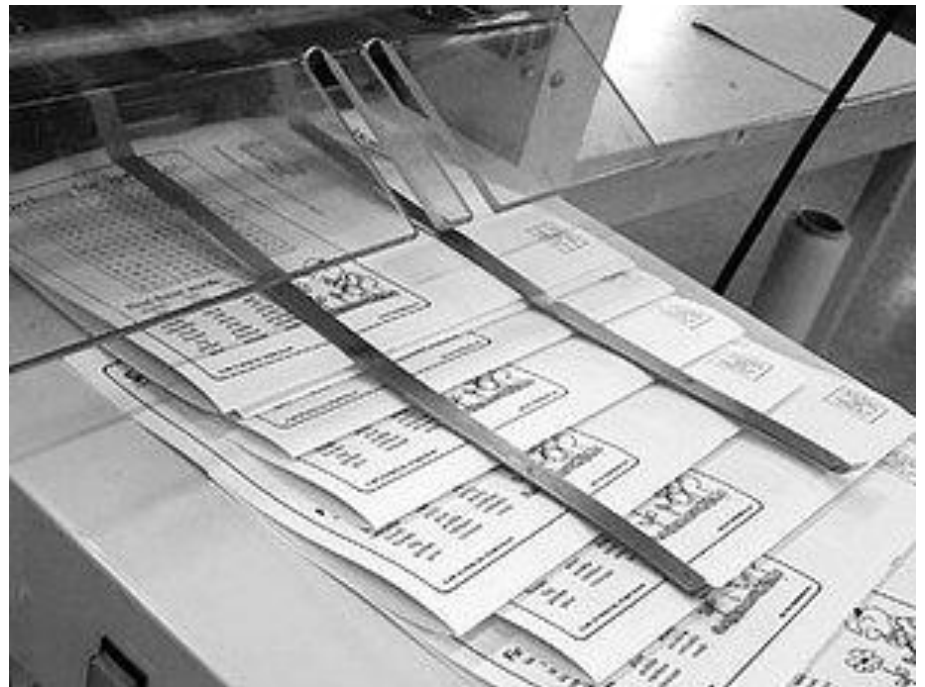
OCR software works with your scanner to convert printed characters into digital text, allowing you to search for or edit your document in a word processing program.





- Specific tasks related to finishing:

- Stapling/Binding – directly in the machine
- Printing multiple copies
- Collating
- Adding watermark



Methodological tool

Equipment Training EUPA_LO_039_M_001

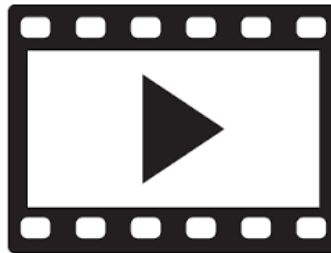


Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Paper binders



Comb Binding machine

<https://www.youtube.com/watch?v=1wCMdxihR5U>

Wire Binding machine

<https://www.youtube.com/watch?v=0MNB5r8bEsc>

Thermo binding machine

<https://www.youtube.com/watch?v=ivYcsh6SG-I>



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Organizational procedures



Organizational procedures related to office equipment usually cover following topics:

- Selecting and buying equipment
- Proper placing of the equipment
- Training of users and using the equipment
- General maintenance
- Safety regulations
- Troubleshooting
- Repairs



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- **Purchasing new equipment**

- Choose machines that recycle toner, use sealed toner cartridges and waste containers, filter exhaust air, and have automatic cut-off when the waste container is full or when the machine is opened





- Consider the effectiveness of expenses and use of the equipment
- Purchase toner with specifications indicating minimal risks to health and safety





- Locate equipment in a well-ventilated area.
- Seek a location with the least disruption to surrounding employees.





- Machinery should not obstruct aisles or building exits. Ensure adequate space around the machine for operation and access for maintenance.



Equipment placement



- Consider the noise emission and where the machine is to be located
- Equipment should have no exposed moving parts posing risk during normal operation; and design must not allow contact with live electrical contacts for operators clearing paper jams.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- Install equipment in accordance with the manufacturer's specifications. Obtain all operating diagrams, instruction manuals and locate them near the equipment.



- Specify personnel to carry out routine operations such as clearing paper jams and changing toner containers.





- Provide specific training to these employees and general appropriate training to all users of the equipment.



- Procedures for safe use of the machine, together with the name of the person responsible for the machine, should be clearly displayed.





- All copying and like machines should be regularly maintained to the manufacturer's specifications by authorised service personnel and a register kept of maintenance, repairs and replacements.





- Use **standby and power saving modes** on computers and monitors
 - and switch them off at the end of the day and at other times when they're not in use
 - **Standby settings** set for maximum energy efficiency





- **Appropriate print quality**
 - low quality to be used for all internal documents, colour printing to be used only in specified circumstances
- **Print in batches wherever possible**
 - All unnecessary photocopying and printing to be avoided - this will also reduce waste



Think before you print!



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.





- **Consider**

- the height and positioning of equipment and work surfaces to avoid operators sustaining awkward postures.
- features such as automatic stapling, hole punching, collating and double sided printing to eliminate these manual tasks.





- Always avoid looking directly at the light from photocopiers.
- The document cover should be closed wherever possible when photocopying.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- Continuous photocopying and collating should be avoided.
- Schedule duties appropriately or allow for adequate breaks from such tasks.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- Beware of hot components and follow the manufacturer's instructions.
- Dispose of waste toner as recommended by the manufacturer.



Problems with office equipment usually fall into 2 categories

1. simple malfunctioning that can be solved quickly and directly by any employee
2. more complex problem that may require either an IT specialist or a professional service intervention





Regular maintenance and monitoring of the equipment

- Keeping equipment clean – removing dust, cleaning the lens and the glass, using of appropriate cleaning supplies
- Using original or authorised supplies
- Turning equipment off when not in use for a longer period of time (weekend, office holidays etc.)
- Regular periods for inhouse monitoring





Based on contract - usually with authorized service provider or seller

! Can save money for repairs

May include:

- Free telephone support
- Replacement loan machine
- Regular visits for preventive maintenance
- Free delivery of paper, toner or other supplies



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

In-house Equipment troubleshooting



- (Revision from level 2)
 - “Have you tried to turn it off and on again?”
 - Check power and network connections
 - Paper jam /open doors
 - Toner issue / Imaging unit
 - Out of paper?
 - Out of Staples?



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- Computer driver update
- Consult manual
- Consult internet - manufacturer website
- Ask colleagues
- Call IT department



Methodological tool

Group work: Troubleshooting guide EUPA_LO_040_M_001



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



1. Telephone help – usually when a service call message is displayed
2. Call for repairs – check warranty information if maintenance agreement is not in place



3. Ask for a repair price quotation – compare with the price of new equipment (sometimes buying new one is cheaper)
4. Ask for time period and replacement lending
5. Supervise the repair



Methodological tool

Handling repairs EUPA_LO_041_M_001



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- Review Question 1
 - Can you list any recommendations and policies related to safe use of printing stations?
- Review Question 2
 - Please describe process of handling repairs of the office equipment.



- Office equipment
 - Choose wisely
 - Well placed
 - Safety precautions
 - Train users
 - Regular maintenance
- Troubleshooting and Repairs
 - What I can do
 - Help from others
 - Professional help and repairs





Well Done!

You have completed this unit



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Union. This project reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.