

# Instruction manual ■ ■ ■

SmartDate X60

Colour User Interface



Safety instructions



Printer overview



User Interface overview



Start / Stop the printer



Select a job



Menu structure



Printhead maintenance



Consumables



Troubleshooting



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## EC DECLARATION OF CONFORMITY DECLARATION DE CONFORMITE CE

Markem-Imaje Ltd.  
Nottingham Science Park  
University Boulevard  
Nottingham NG72QN United Kingdom  
ensures that the new equipment  
referenced below:

Markem-Imaje Ltd.  
Nottingham Science Park  
University Boulevard  
Nottingham NG72QN United Kingdom  
certifie que l'équipement neuf,  
désigné ci-dessous:

SmartDate X60  
Thermal Transfer Printer

Serial No:

is in accordance with the European directives  
applicable to equipments that is to say:

- with the machinery directive 2006/42/EC  
and the relevant European standards.  
BS EN 60204-1:2006 +A1:2009  
BS EN ISO 13849-1:2008  
BS EN ISO 12100:2010
- with the electromagnetic compatibility  
directive 2004/108/EC and the relevant  
European standards.  
EN61000-6-2:2005, EN 61000-6-4
- with the low voltage directive 2006/95/EC  
and the relevant European standards.  
BS EN 60950-1:2006+A12:2011
- The above referenced equipment bears the  
CE marking.

Nottingham, 14th September 2011

Alan Beech

Engineering Manager  
Directeur de technologie

est conforme aux directives européennes  
applicables aux équipements, soit:

- à la directive sur les machines 2006/42/CE  
et aux normes européennes correspondantes,  
BS EN 60204-1:2006 +A1:2009  
BS EN ISO 13849-1:2008  
BS EN ISO 12100:2010
- à la directive sur la compatibilité  
électromagnétique 2004/108/CE  
et aux normes européennes correspondantes.  
EN 61000-6-2:2005, EN 61000-6-4
- à la directive sur la basse tension  
2006/95/CE et aux normes européennes  
correspondantes.  
BS EN 60950-1:2006+A12:2011
- L'équipement référencé ci-dessous peut  
porter le marquage CE.

Nottingham, le 14 Septembre 2011



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Before using this printer, please read and fully comply with these instructions, the material safety data sheet (MSDS) for consumables used, and safety labels affixed to the printer. Servicing must be performed only by qualified people who are appropriately trained.

## ■ Liability

Markem-Imaje shall not be liable for any damage or injury resulting from any failure to follow these safety instructions, as well as good manufacturing practices and safety standards that are generally applicable in the industry, when installing, using or servicing Markem-Imaje equipment.

Any user who modifies or repairs Markem-Imaje equipment, uses consumables, spare parts or accessories other than those supplied by Markem-Imaje, or fails to comply with Markem-Imaje specifications shall have sole responsibility for the consequences thereof.

Markem-Imaje shall not be liable for any malfunction or damage caused by any modification of the equipment or use of the equipment for any purposes other than those for which it is designed. The user shall be solely responsible to take any precautions required by any use to which the user puts the Markem-Imaje equipment.

Markem-Imaje consumables (inks, ribbons, cleaning products and other consumables), spare parts and accessories are designed for use with Markem-Imaje equipment. Use of consumables, spare parts or accessories, that are not produced or recommended by Markem-Imaje for use with the specific Markem-Imaje equipment may harm the equipment and cause performance failures.



# Safety instructions

Because Markem-Imaje equipment is tested with Markem-Imaje consumables and spare parts for conformity with certain regulations and safety standards, use of non-Markem-Imaje consumables and spare parts also may be inconsistent with testing conditions and affect compliance of the equipment with certain standards. The user shall bear all risks associated with use of unsuitable consumables and spare parts.

Markem-Imaje cannot guarantee the safety and / or suitability of non-Markem-Imaje print ribbon. The NTRL certification may be compromised if non Markem-Imaje ribbon is used.

If non-Markem-Imaje ribbon is used, it is recommended that anti static properties be considered.

This equipment is certified in accordance with the requirements for CE marking.

## ■ Handling

When removing the printer from the host machine, care should be taken to first ensure that the body of the printer is at a temperature that can be comfortably handled. It is important to note that the small area of the perimeter of the printer main plate which is exposed between the front and rear covers is likely to be the warmest zone, and warrants particular attention.

Safety shoes should be worn when installing or removing the Controller or Printer body from packaging machinery.

These units are heavy and there is a danger of injury if dropped. To avoid injury by dropping the printer cassette when changing ribbon, please ensure that the cassette is placed on a bench and that safety shoes are worn.

Printer weight: 7.82 kg

Controller weight: 4 kg



## ■ Health / Hygiene / Environment



Solvent-resistant gloves and safety goggles are recommended during cleaning operations.

Please read the Isopropanol Safety Data Information prior to using Isopropanol with any Markem-Imaje product.

Noise levels:

Test Standard BS EN ISO 3746:1996

SmartDate X60 Intermittent Mode 199 ppm with a 10 mm Image (700 mm/s) <70 dB (A)

SmartDate X60 Continuous Mode 299 ppm with a 10 mm Image (160 mm bag) (800 mm/s) 70 dB (A)

Operating environment of:

32o F to 104o F (0o C to 40o C)

## ■ Installation Requirements

The printer must be placed such that all its surfaces are easily accessible and the control interfaces are fully visible.

Ensure that these services and control signals are available:

Power - 100 - 230V AC (+/- 10%) 50 - 60 Hz

Compressed Air - 6 Bar (max.), dry and uncontaminated.

A Print Go Signal - This can be either a volt free contact which closes when printing is required, or a 24 V DC signal from a PNP sensor (positive edge triggered).

Sufficient space for installation and operation.

SmartDate X60 configured as a continuous printer also requires an encoder to monitor the substrate speed.



# Safety instructions

## ■ Installation

First time Installations will normally be carried out by qualified Markem.Imaje service technicians.

For experienced customers who have existing SmartDate units and wish to carry out installation themselves, please first check with Markem.Imaje to ensure that this is advisable.

## ■ Use

Do not touch the printer while it is running in intermittent mode to avoid the risk of pinching.

The printer is designed for thermal transfer printing. Any other use of the printer is prohibited, and any consequences shall be under the entire responsibility of the user.

## ■ Servicing

DISCONNECT the printer from the mains before any operations requiring components to be removed or exchanged.

Use appropriate tools for any work on the electrical and pneumatic circuits.

DO NOT operate the machine with any covers removed. All covers must be in place using the appropriate number of fasteners. It is essential that electrical and non-electrical connector dust covers (provided with the machine) are fitted to all unused connectors to protect against dust and dirt and possible static damage to internal components.

DISCONNECT the air supply before undertaking work on the printer.

Do not adjust the regulator pressure above 6 Bar under any circumstances. Doing so could make the SmartDate X60 unsafe.



## Batteries

There is a non-replaceable lithium battery mounted on the control board assembly. Under no circumstances should this be replaced (it should last for several years). In the event of failure, please return the whole control board assembly to Markem-Imaje for repair.

## ■ Recycling



Disposal of used batteries and accumulators (applicable in EU countries and other European countries with selective waste collection systems).



Disposal of used electric and electronic appliances (applicable in EU countries and other European countries with selective waste collection systems).

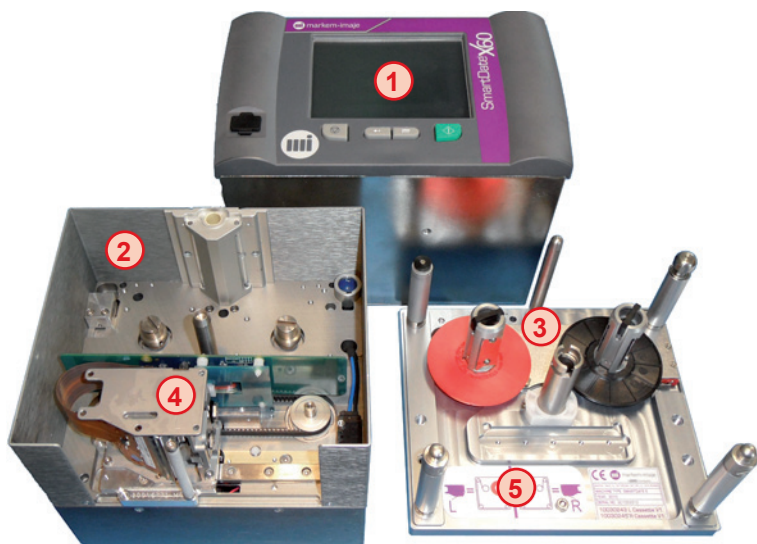
These symbols indicate that once these electric and electronic appliances have reached the end of their life, they cannot be treated as simple household waste. The same applies for any batteries and accumulators within the appliances. By making sure that these items are disposed of in an appropriate manner, you are playing an active role in preventing potential negative consequences to the environment and to human health that might result from improper disposal. Recycling materials also helps to save natural resources.

By giving your spent electric appliances to a company authorised to recycle them, you can be certain that all built-in parts will be dealt with correctly.

For all other scenarios and for how to safely remove the batteries, accumulators and other materials from your appliance, please refer to the user manual or contact your Markem-Imaje representative.



# SmartDate X60 Combined Printer

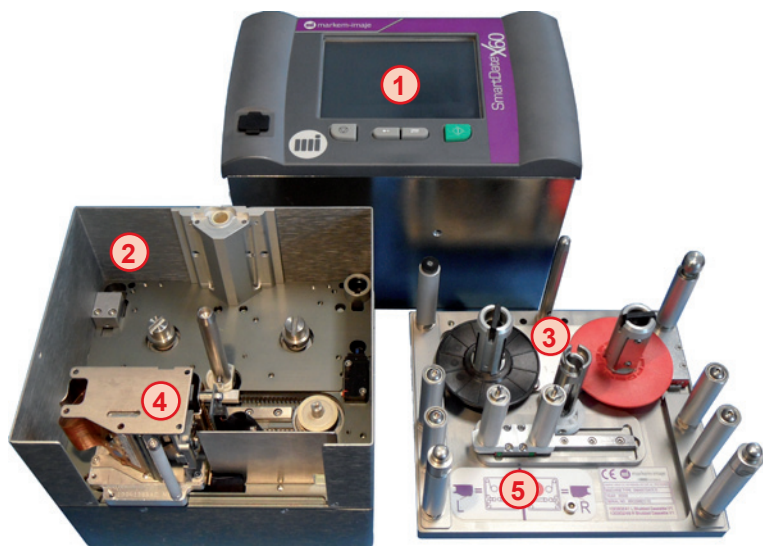


- 1 User Interface
- 2 Printer
- 3 Ribbon Cassette
- 4 Printhead Module
- 5 Ribbon Webbing Diagrams





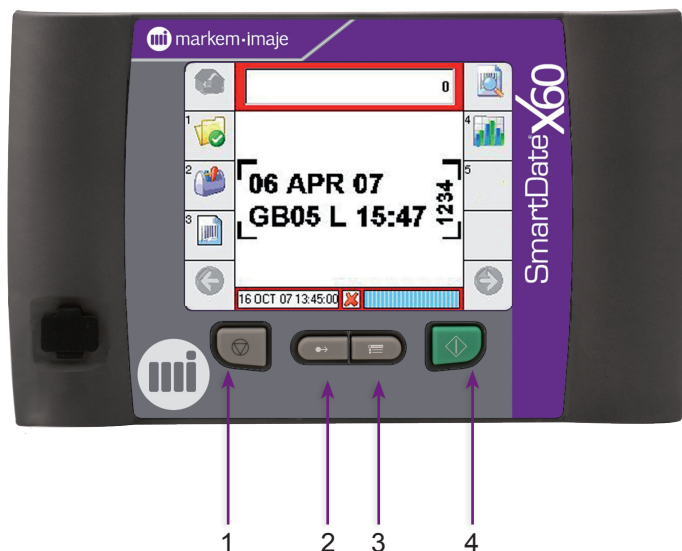
# SmartDate X60 Shuttle Printer



- 1 User Interface
- 2 Printer
- 3 Ribbon Cassette
- 4 Printhead Module
- 5 Ribbon Webbing Diagrams


















# Interface overview



Button	Function
1	Stop producing
2	Registration
3	Select job
4	Start producing

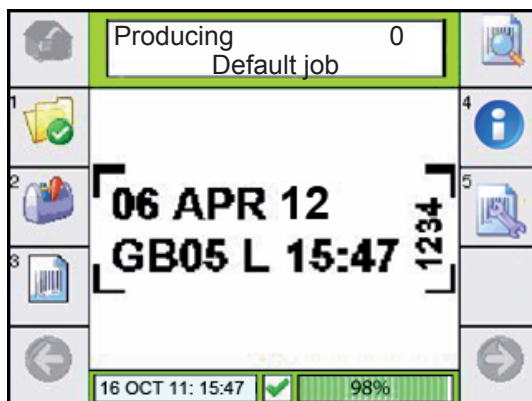
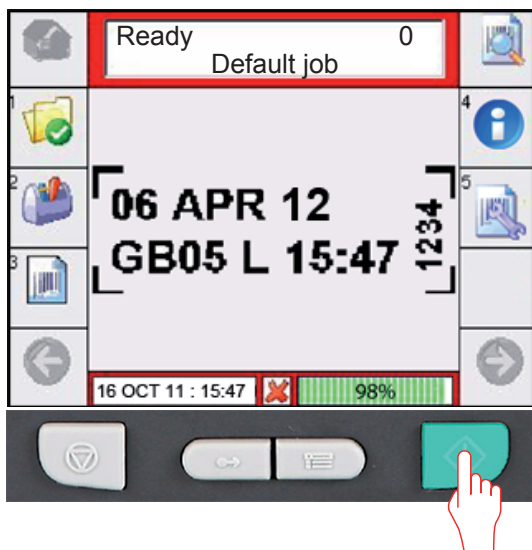


# Description of icons

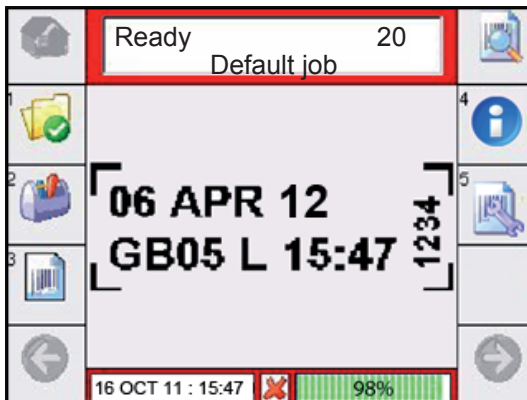
	Home	This option will return you to the Home screen.
	Print preview	This option allows you to preview the selected job.
	Folder OK	This indicates that there are no faults or warnings active.
	Folder warning	This indicates that there is one or more warnings active.
	Folder fault	This indicates that there is one or more Fault messages active.
	Menus	This option allows you to access the menu options.
	Select job	This option allows you to select a job to be printed.
	Counts	This option allows you to view the various printer counts.
	Print adjust	This option allows you to configure the basic print settings.
	Settings	This option allows access to the printer settings menus.
	Diagnostics	This option allows access to the various diagnostics functions.
	Information or Statistics	This option allows you to view the selected Image field information or statistical details.
	Files	This option allows you to manage the various Database files.
	Service	This option allows access to the Service menu. This is password protected.
	Version Information	This option allows you to view specific information about the printer.



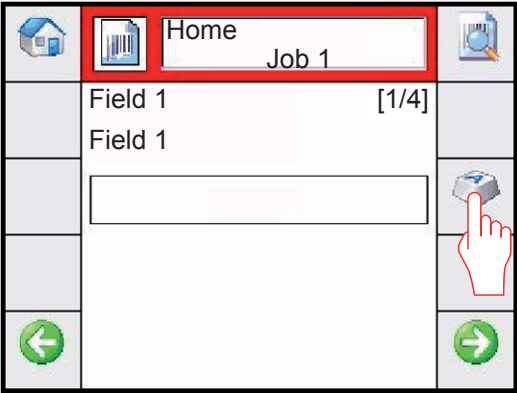
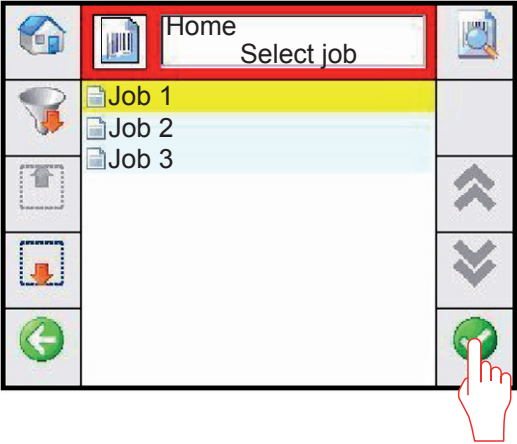
# Start the printer



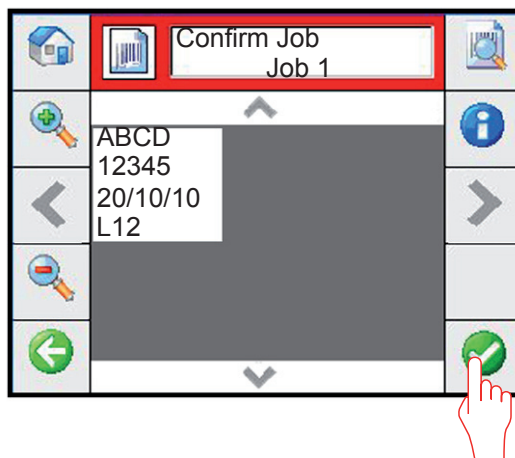
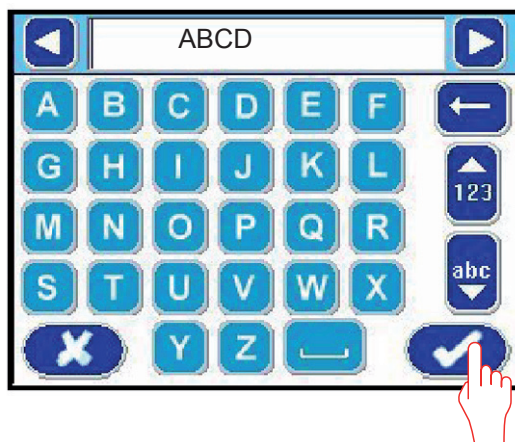
# Stop the printer






# Select a Job - Local Database










# Select a Job - Local Database



# Select a Job - Remote Database






	<div>Home Select Job from Host</div>	
	Please enter the Job name	
	<input type="text"/>	
		










	Job 1					
A	B	C	D	E	F	
G	H	I	J	K	L	
M	N	O	P	Q	R	123
S	T	U	V	W	X	abc
	Y	Z				





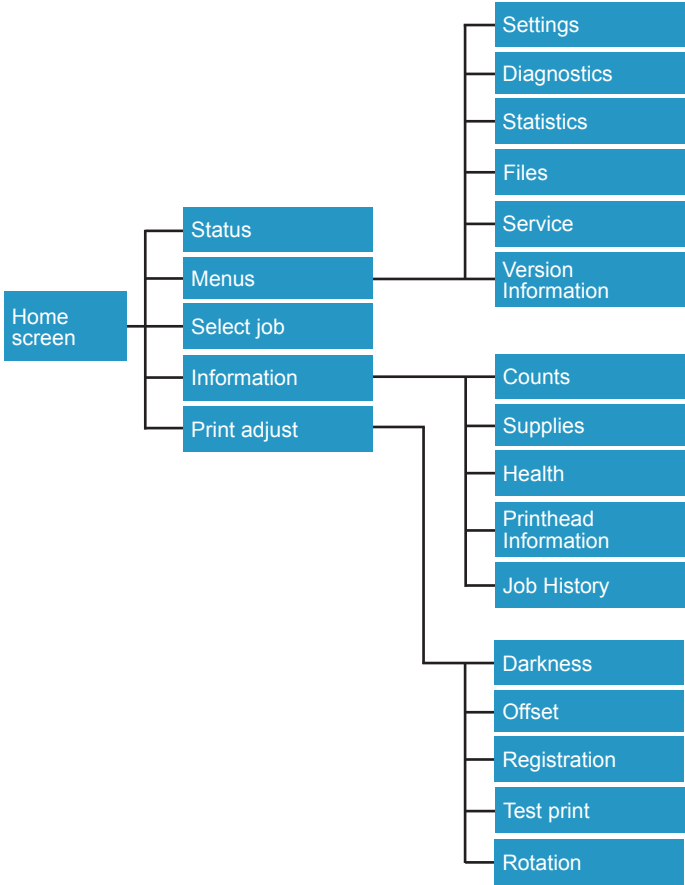
# Select a Job - Remote Database

	<div>Home</div> <div>Job 1</div>	
	Field 1 [1/4]	
	Field 1	
	<input type="text"/>	
		

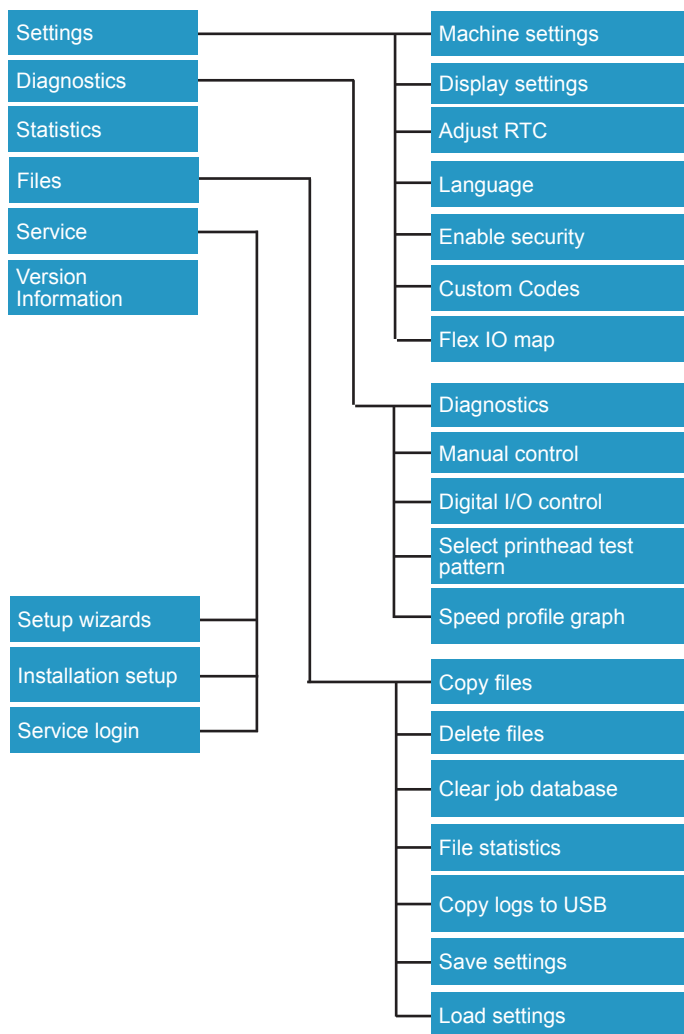
	<div>Confirm Job</div> <div>Job 1</div>	
	<div>ABCD</div> <div>12345</div> <div>20/10/10</div> <div>L12</div>	
		
		
		



# Menu structure

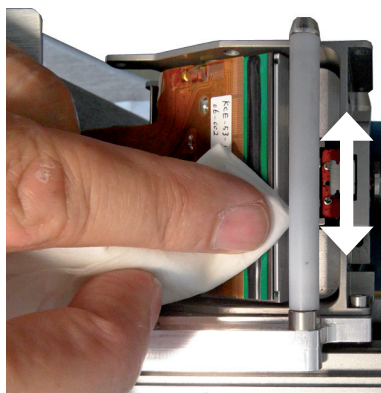
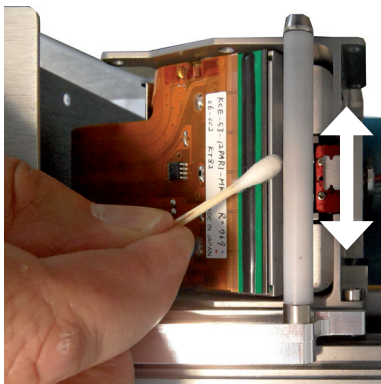


# Menu structure



# Printhead maintenance

Print line  
(corner edge)



# Printhead maintenance

The printhead should be cleaned at regular intervals. These depend on machine use, operating environment, and choice of thermal ribbon.

Turn off the power to the controller and remove the ribbon cassette.

Allow the printhead to cool to normal room temperature before proceeding in order to prevent the possibility of thermal shock damage.

Use a cotton swab or a soft cloth soaked in Isopropanol solvent to remove any residue from the printhead. Take care not to use excessive amounts of solvent.

The print line is located on the bevelled edge of the printhead.

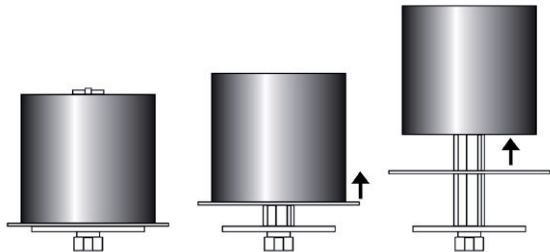


# Changing the Ribbon

When removing the cassette, if the latch does not turn, please call an Engineer.  
Do not use force or tools.



Use the plate below the waste ribbon to lift it off the ribbon rewind reel. If the ribbon is still difficult to remove, please call an Engineer.  
Do not use force or tools.

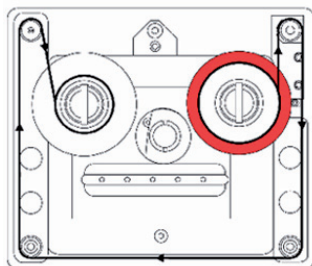


Always use an Empty Ribbon Core.  
Do not wrap the ribbon directly around the Ribbon Rewind Reel.

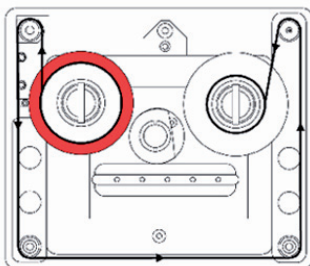


## ■ Webbing Diagrams

### SmartDate X60 Combined Printer

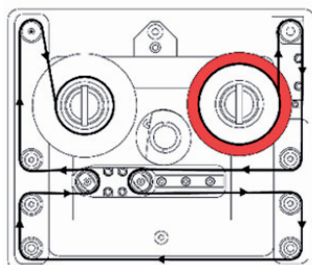


**Left Hand**

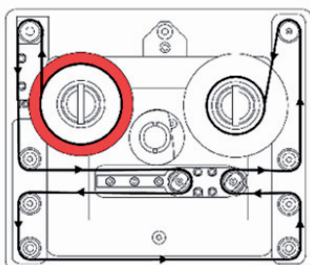


**Right Hand**

### SmartDate X60 Shuttle Printer



**Left Hand**



**Right Hand**

Ensure that the ink side of the ribbon is facing away from the printhead. Scratch the ribbon with a fingernail to test; the ink should scratch off.

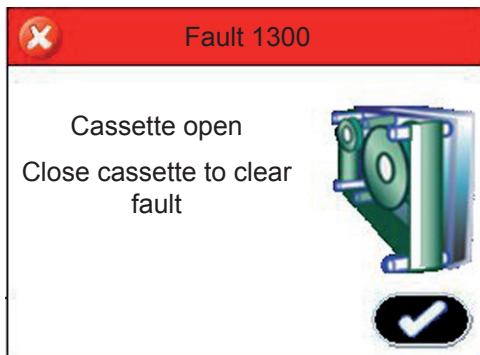
If the new ribbon is a different type or size from the one removed, please consult your manual.



# Control messages

In the case of a Warning the SmartDate X60 will continue printing if in Producing mode. The Warning does not stop the print cycle.

An example of a Warning might be “Low Ribbon”



If a Fault occurs the SmartDate X60 will stop printing if in Producing mode and the Fault Alert screen will appear. A complete list of error messages can be found in the Troubleshooting section of the Maintenance manual PDF on the CD.





## **LOW RIBBON**

The Ribbon has almost run out.

## **CASSETTE OPEN**

Check cassette is firmly in place with latch closed.  
Ensure handle is in the CLOSED position.

## **CASSETTE LOAD ERROR**

Ensure the shuttle or printhead is in the HOME position.

## **CALIBRATION FAILED**

Check ribbon for breaks or slackness

## **RIBBON BREAK DETECT**

If ribbon is broken, reweb ribbon

S/N :Serial number : \_\_\_\_\_

Ribbon type: \_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_



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# the team to trust ■ ■ ■

User Documentation - Interface Design team



12/2011-AB



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