



Instruction Manual

WeftMaster CUT-iT

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1 General Information

1.1 About this Document

Read this Manual completely before putting the device into operation and keep available at all times.



Clarify anything unclear or uncertainties concerning operation with the supplier!

1.2 Validity

This document is valid for:

WeftMaster CUT-iT

1.3 Design features

Various elements in this Manual have design features.

Design features

- ✓ Requirement
 - 1. Action step
 - ⇒ Intermediate result
 - ⇒ Result

-
- List

«Menu term»

Navigation path







Caption

Cross-reference [▶ 7]

2 Safety

2.1 Safety Information and Warnings

Safety information and warnings draw attention to hazards and are marked with symbols and signal words to express the danger level.

	<p style="text-align: center;"> DANGER</p> <p>Indicates an immediate hazardous situation which will result in death or serious injury.</p>
	<p style="text-align: center;"> WARNING</p> <p>Indicates a potentially hazardous situation which could result in death or serious injury.</p>
	<p style="text-align: center;"> CAUTION</p> <p>Indicates a potentially hazardous situation which may result in minor oder moderate injury.</p>
	<p style="text-align: center;">NOTE</p> <p>Indicates a potentially hazardous situation which may result in damage to property.</p>

2.1.1 Explanation of Symbols

Warning signs



General warning sign



Warning of electrical voltage



Warning of hot surfaces

Mandatory signs



Disable before maintenance or repair (interrupt power supply)



Create a ground connection before using

Disposal sign



Hazardous waste (separate collection of electrical and electronic equipment)

Information symbol



This symbol draws attention to additional information for the operator.

2.2

Intended Use

The device is only intended to separate and melt selvages of fusible textiles (synthetic or hybrid fabrics) on weaving machines, especially to separate and melt fabric selvages or to separate fabrics into strips.

Any other use or use beyond the intended purpose is considered improper. Loepfe Brothers Ltd. is not liable for any resulting damage.



The device is not suitable for non-fusible yarns, such as pure cotton, pure viscose or pure new wool!

2.3 Target group

The WeftMaster CUT-iT device may only be operated by authorized personnel. The authorized personnel is qualified when it completes the necessary training, knows the requirements and is authorized for the assigned task.

2.3.1 Authorized personnel

The WeftMaster CUT-iT manufacturer defines authorized personnel as follows:

- **«Operator»** and **«foreman»**
 - Qualified and trained to operate WeftMaster CUT-iT.
 - Has read and understood the safety regulations.
- **«Industrial electrician / installation technician»**
 - Qualified and trained for all safety checks and installation, maintenance and service guidelines.
 - Responsible for WeftMaster CUT-iT installation and maintenance.
 - Has read and understood the safety regulations.
- **«Service technician»**
 - Loepfe employee qualified and trained for maintenance and repair of the device or persons authorized with express permission from Loepfe Brothers Ltd.

2.4 General safety information

- Follow all safety and operating instructions exactly.
- Keep the complete documentation for later reference.
- Observe all warnings on the device and in the documentation of the weaving machine on which this device is installed or maintained.
- The WeftMaster CUT-iT and the heat cutters may only be installed by an **«industrial electrician / installation technician»** or **«service technician»**.
- Check that all covers are closed and protective plates attached before starting the weaving machine.
- Any use of the device beyond the intended purpose (see Intended Use [► 9]) is considered to be improper use. In this case, the protection provided by the device cannot be guaranteed.

2.5 Safety Concept



This section describes the safety concept of the device for protection against hazards for persons and damage to property.

1 Emergency power off button





Pressing the emergency power off button on the weaving machine interrupts operation of the weaving machine and the WeftMaster CUT-iT

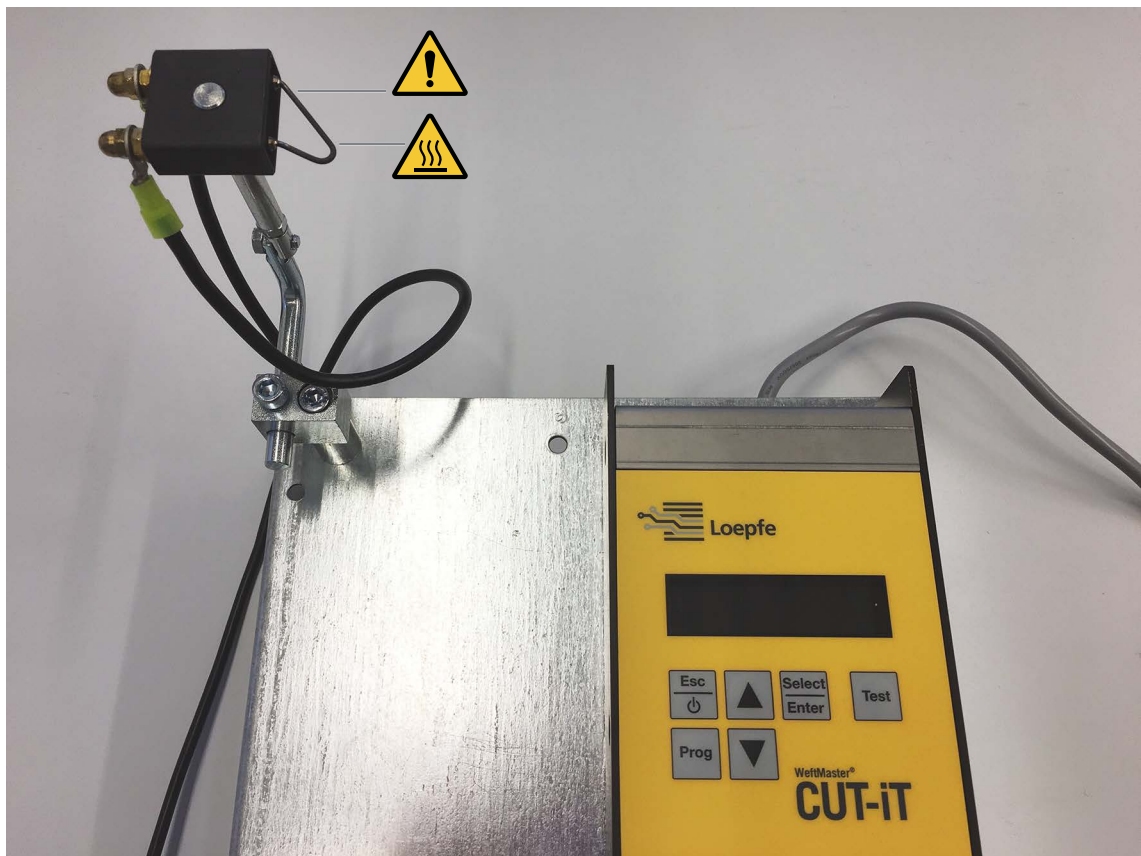
- The device must be installed in such a way that the power supply is interrupted when the emergency power off button is pressed!

 DANGER	
	<p>Hazard due to electric shock</p> <p>Contact with live components and electrical connections leads to serious injuries or death.</p> <ul style="list-style-type: none"> ▶ Installation and maintenance must only be carried out by an «industrial electrician / installation technician» or «service technician». ▶ Switch off the main switch of the weaving machine on which the control unit is installed before opening, modifying or extending the system. ▶ Disconnect the device from the power supply before maintenance or repair work. ▶ Close all device covers before starting the system.



2.5.1 Fire prevention measures

 WARNING	
	<p>Risk of fire due to hot heat cutters</p> <p>Disregarding the following measures leads to fire risks and therefore risk of injury.</p> <ul style="list-style-type: none"> ▶ Installation, setting and operating the WeftMaster CUT-iT only by authorized personnel. ▶ Set running and idle temperatures of cutting wires as low as possible. ▶ Pay utmost attention when blowing-off and cleaning weaving machines with WeftMaster CUT-iT connected. ▶ Do not run weaving machines fitted with WeftMaster CUT-iT without supervision. ▶ Do not lay objects on or over the heat cutters. ▶ Have suitable fire extinguishers available in case of fire.

2.5.2 Safety precautions when using heat cutters



Control unit and heat cutter

	<p style="text-align: center;">⚠ WARNING</p> <p>Risk of fire due to improper use</p> <p>Risk of fire and therefore also risk of injury when using the WeftMaster CUT-iT on non-fusible yarns such as pure cotton, pure viscose or pure new wool.</p> <ul style="list-style-type: none"> ▶ Only process fusible textiles (synthetic or hybrid fabrics).
	<p style="text-align: center;">⚠ CAUTION</p> <p>Risk of burns due to hot surfaces.</p> <p>Touching hot cutting wires can cause serious burns.</p> <ul style="list-style-type: none"> ▶ Never touch hot cutting wires at any time.

3 Product and Function

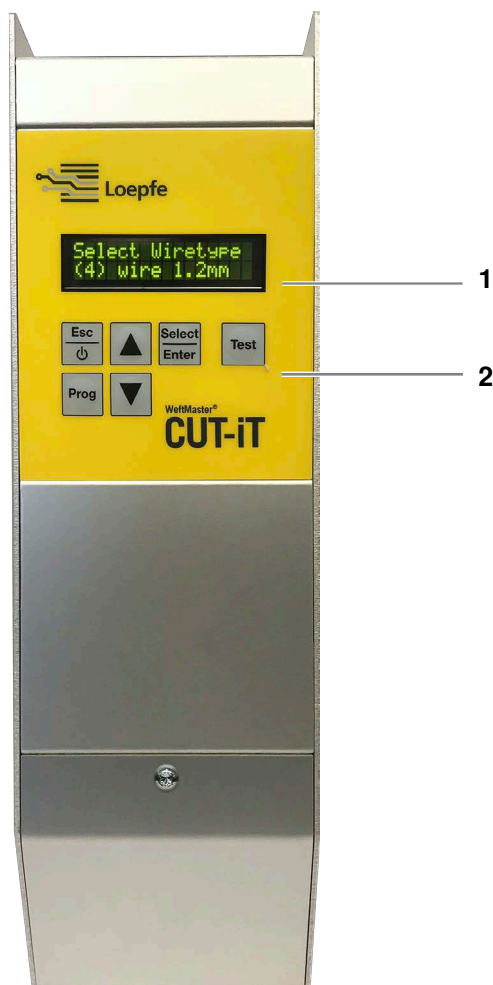
3.1 Product description

The device is used to separate and melt selvages of fusible textiles (synthetic or hybrid fabrics) on weaving machines, especially to separate and melt fabric selvages or to separate fabrics into strips.

The device can be fitted with various heat cutters. Heat cutter selection depends on fabric material processing, material transport speed as well as filling and warp densities.

3.1.1 Control unit

The control unit controls the electrical current through the cutting wires of the heat cutter fitted on a weaving machine. The current strength depends on whether the weaving machine is running or idle.



WeftMaster CUT-iT control unit

- 1 Display
- 2 Function buttons

The 4 different current flow modes

Mode	Description
Off mode	Output current is switched off. Display: « POWER OFF » (switched off)
Standby mode	Time in which the weaving machine is idle. Predefined current flows through the cutting wires during this time. This achieves an optimum output temperature for the machine to run. Display: « Standby »
Boost mode	Weaving machine starting phase. Predefined current flows through the cutting wires for a limited time. This current heats the cutting wires as quickly as possible to operating temperature. Display: « Boost » (startup current)
Run mode	Time in which the weaving machine is running. The predefined current flows through the cutting wires during this time. Display: « Run » (running current)

The WeftMaster CUT-iT stops the weaving machine in the following cases



- The power supply is interrupted.
- A system error is detected.
- No cutting wire is connected.
- A cutting wire is broken (defective).
- A connection cable is interrupted.
- WeftMaster CUT-iT restarts.

3.2 Scope of Delivery

The following components are included in the scope of delivery:

- 1 control unit WeftMaster CUT-iT

Optional

- Heat cutters depending on suitability:
 - 1 heat cutter F Ceramic
 - 1 heat cutter R Ceramic (short)
 - 1 heat cutter R Ceramic (long)
 - 1 heat cutter FL Ceramic
 - 1 heat cutter F Steel
 - 1 heat cutter F Steel with foot
- Power supply 24 VDC
- Auxiliary parts according to Spare Parts catalog

4 Operation







4.1 Operating elements



Operating elements

- 1 Function buttons

4.2 Function buttons

Button	Press button	Press button for 3 seconds
	<ul style="list-style-type: none"> ■ Switch device on ■ Exit without changing ■ Delete error message 	Switch device off
	Confirm	Setting mode (set current strength for «Run» and «Standby»)
	Select program	
	Scroll up	Display internal measured values
	Scroll down	Reset program settings of selected program to standard values
	Test mode	

4.3 Basic functions

4.3.1 Putting the device into operation

1. Connect device to power supply.
 - ⇒ The following status messages are each displayed for 1 second during the Startup phase.
 - ⇒ Display: «Starting Up»



- ⇒ Display: «Version: X.X» (software version)



- ⇒ Display: «Board type»



- ⇒ Display: «Relay type»

Loepfe CUT-iT
Relay type: 0

- ⇒ Display: «**Address: X #Slaves: X**» (Master/Slave address) when using just one unit: Address (Master) = 0 and number of Slaves = 0

Loepfe CUT-iT
Add: 0 #Slaves: 0

- ⇒ or
- ⇒ Display: «**Address: X #Slaves: X**» (Master/Slave addresses) when using Master and Slave: Address (Master) = 0 and number of Slaves e.g. 2 depending on number of Slaves used)

Loepfe CUT-iT
Add: 0 #Slaves: 2

- ⇒ or
- ⇒ Display: «**Address: X**» (Slave address) when using the control unit as Slave: Address (Slave) = e.g. 2

Loepfe CUT-iT
Add: 2

- ⇒ Display: «**Wiretype**»



Loepfe CUT-iT
Wire: 3 => 1.0 mm

- ⇒ Display: «**Standby**»

P:1 Standby
Current: 5.8A


- ⇒ Device ready for operation.

4.3.2 Switching the device off

  Cannot be used as emergency power off button.

- Even though the WeftMaster CUT-iT device is switched off:
 - The emergency relay (output relay) is active.
 - The weaving machine is not stopped.
 - Current remains present in the device.

✓ Device connected to power supply.


1.  Press for 3 seconds.
⇒ Display: «**POWER OFF**» (switched off)



⇒ Output current is switched off.

4.3.3 Putting the device into operation

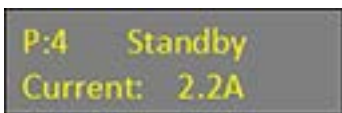
✓ Device connected to power supply.

1.  Press.
⇒ The following status messages are each displayed for 1 second during the Startup phase (see Putting the device into operation [▶ 16])

4.3.4 Current flow modes

Display (example)


- 1. Line
 - «**P:4**» Program number is displayed.
 - «**Standby**» Current flow mode is displayed.
- 2. Line
 - «**Current: 2.2 A**» Output current is displayed.



Modes

There are 4 different current flow modes:

- «Standby» (ready for operation)
 - The «Standby mode» describes the time in which the weaving machines is idle. Predefined current flows through the cutter wires during this time.
 - This achieves an optimum output temperature for the machine to run.



P:4 Standby
Current: 2.2A

- «WStandby» (Minimum standby time)
 - The WeftMaster CUT-iT maintains a minimum standby time to allow the cutter wires to cool down when the weaving machine stops.
 - If this minimum standby time is not maintained and the «Run command» comes too soon after a previous run, the current remains in the «WStandby-Modus» for the predefined time and the standby time is delayed. This minimum time is defined in system parameter 87 (as standard value with 0).



P:4 WStandby
Current: 2.2A

- «Boost» (start-up current)
 - The «Boost mode» describes the weaving machine startup time. The predefined current flows through the cutter wires for a limited time.
 - This current heats the cutter wires as quickly as possible to operating temperature.



P:4 Boost
Current: 17.5A


- «Run» (running current)
 - The «Run mode» describes the time in which the weaving machines is running. The predefined current flows through the cutter wires during this time.



P:4 Run
Current: 6.2A

4.3.5

Test mode

- ✓ The weaving machine is idle.
 - ✓ WeftMaster CUT-iT is in Standby mode.
1.  Press within a maximum time of 1 minute (maximum test time adjustable in system parameter 85).
 - ⇒ WeftMaster CUT-iT switched to Run mode during the time the button is pressed.

4.3.6 Select Program

Ten programs can be saved in system memory (program numbers 1–10).

- Each program contains the values for the Standby and Run current strengths for the specified and selected cutter wire type.







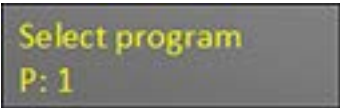
A new value must be defined when a cutter wire type is changed.



A program can only be selected when the weaving machine is idle.

✓ The weaving machine is idle.

1.  Press.
 2.   Press to select the desired program.
 3.  Press to confirm the selected program.
- ⇒ The selected program is active.





Select program
P: 1



A program can only be selected when the weaving machine is idle.

✓ The weaving machine is running.


1.  Press.
- ⇒ The following error message is displayed:



Warning
- NOT POSSIBLE !


4.3.7 Setting the current strength






Activating  when changing settings interrupts the process and Setting mode is exited without saving the changes.

Standby current strength with machine stopped

✓ The weaving machine is idle.

1.  Press for 3 seconds.
⇒ Display: «**Tune-Standby**» (setting in Standby mode)

P:4 Tune-Standby
Current: 2.9 A


2.   Press to select desired setting.
3. If no button is pressed within 10 seconds.
⇒ Setting mode is exited without saving any changes.
4.  Press to confirm desired setting.
⇒ Display: «**Execute**» (execute)

Execute


⇒ The setting is saved.

Run current strength with machine stopped


✓ The weaving machine is idle.

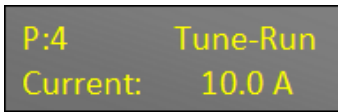
1.  Press for 3 seconds.
⇒ Display: «**Tune-Standby**» (setting in Standby mode)




P:4 Tune-Standby
Current: 2.9 A

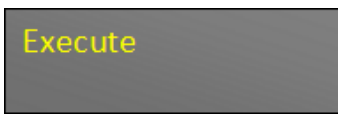
2.  Press to switch to settings in «**Run mode**» .
⇒ Display: «**Tune-Run Current**» (current strengths setting in Run mode)

Tune Run Current
Are You Sure ?

3.  Press to confirm process.
⇒ Display: «**Tune-Run**» (setting in Run mode)



4.   Press to select desired setting.
5. If no button is pressed within 10 seconds.
⇒ Setting mode is exited without saving any changes.
6.  Press to confirm desired setting.
⇒ Display: «**Execute**» (execute)




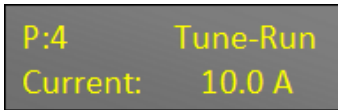
⇒ The setting is saved.




Run current strength with machine running

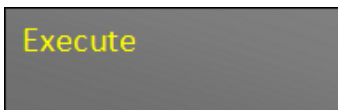
Only the run current strength can be set when the weaving machine is running.

✓ The weaving machine is running.

1.  Press for 3 seconds.
⇒ Display: «**Tune-Run**» (setting in Run mode)



2.   Press to select desired setting.
3. If no button is pressed within 10 seconds.
⇒ Setting mode is exited without saving any changes.
4.  Press to confirm desired current strength.
⇒ Display: «**Execute**» (execute)



⇒ The setting is saved.


4.4 Advanced functions

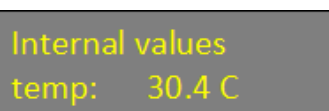
4.4.1 System settings


The following system settings can be displayed:

- «Standby current»
- «Run current»
- «Boost current»
- «Boost time»
- «Internal values»
- «Supply voltage»
- «Output voltage»
- «Set value of current source A»
- «Actual output current of current source A»
- «Set value of current source B»
- «Actual output current of current source B»
- «Output load resistance»

Displaying system settings

1.  Press for 3 seconds.
⇒ Display: «**Internal values**» the internal value (temperature) is displayed.




2.  Press to display further internal values.
⇒ The further internal values are displayed.
3. Press any button.
⇒ WeftMaster CUT-iT returns to «**Standby mode**».

4.4.2 Setting the display contrast





This setting can only be initialized during the startup phase!






Activating  when changing settings interrupts the process and Setting mode is exited without saving the changes.

✓ Device connected to power supply.

1.  Press.
⇒ Startup phase runs.
2.  Press during the startup phase.
⇒ Display: «**Contrast up / Down**» (contrast higher / lower)



Contrast up/Down
Value 85 %

3.   Press to select desired setting.
4.  Press to confirm desired setting.
⇒ Display contrast is set.

5 Troubleshooting

5.1 Warnings

A warning is displayed for 3 seconds:

Warning	Display	Action
1	« NOT POSSIBLE! » Operator cannot execute (e.g. select program while machine is running)	Select a program when the weaving machine is idle.
2	« BOOST LIMITED » The boost current strength is limited for an output power of max. 325 W.	When the boost current strength limit is reached, the boost time is extended.
3	« RUN LIMITED » The run current strength is limited for an output power of max. 125 W.	The run current strength is limited.

5.2 Error messages

Error	Display / cause	Action
01	<p>«NO CUTTING WIRE SET»</p> <p>No cutter wire diameter is defined in the basic setting.</p>	<p>Assign an «industrial electrician / installation technician» to carry out the following work:</p> <ul style="list-style-type: none"> ■ Define the cutter wire diameter.
04	<p>«STILL RUNNING»</p> <p>Weaving machine not idle during CUT-iT startup.</p>	<p>Stop weaving machine during CUT-iT startup.</p>
07	<p>«HARDWARE POWER ERROR»</p> <p>The supply of the output current is interrupted if the input voltage is outside the limits (17 V-33 V) or if the supply current of 24 V DC is too high due to a hardware error.</p>	<p>Assign an «industrial electrician / installation technician» to carry out the following work:</p> <ul style="list-style-type: none"> ■ Check power supply.
10	<p>«NO CUTTING WIRE CONNECTED»</p> <p>No heat cutter is connected or the heat cutter is defective.</p>	<p>Assign an «industrial electrician / installation technician» to carry out the following work:</p> <ul style="list-style-type: none"> ■ Connect heat cutter ■ Replace heat cutter ■ Repair connection
11	<p>«INPUT VOLTAGE TOO LOW»</p> <p>Input voltage too low.</p> <ul style="list-style-type: none"> ■ 24V supply voltage is lower than 19V. 	<p>Assign an «industrial electrician / installation technician» to carry out the following work:</p> <ul style="list-style-type: none"> ■ Check input voltage.
13	<p>«RUNS PRO 2 MIN»</p> <p>Too many runs / stops during the last 2 minutes.</p>	<p>Wait and clear error.</p>
14	<p>«MAX BOARD TEMP»</p> <p>Board temperature too high.</p> <ul style="list-style-type: none"> ■ The ambient temperature is too high or the natural cooling of CUT-iT is insufficient. 	
15	<p>«NO SLAVE(S)»</p> <p>CUT-iT is set in Master/Slave mode but fewer Slaves are detected in the network than set.</p>	<p>Check the number of Slaves set.</p>
16	<p>«NO MASTER»</p> <p>CUT-iT is set in Master/Slave mode but no Master is detected in the network.</p>	<p>Check Master/Slave connection.</p>

6 Disposal

6.1 Hazardous waste

Electronic components



Waste electrical and electronic equipment and batteries must not be disposed of with household waste.

If you ever need to dispose of this product, please note the following:

- Recycle product at designated facilities.
- Check with local authorities or the dealer for waste disposal regulations.



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