

COLOREEL[®]

Full Operator Manual

EN

Operator's manual

3-82



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1 IMPORTANT SAFETY INSTRUCTIONS

The ITCU is designed to comply with IEC/EN 62368-1 and CSA/UL 62368-1

When using an electrical appliance, basic safety precautions should always be followed, including the following:

- Read all instructions before using the ITCU.
- Keep the instructions at a suitable place close to the ITCU. Make sure to hand them over if the ITCU is given to a third party.

DANGER –TO REDUCE THE RISK OF ELECTRIC SHOCK:

- A ITCU should never be left unattended when plugged in. The electrical socket, to which the ITCU is plugged in should be easily accessible. Always unplug the ITCU from the electric outlet before cleaning, removing covers, lubricating or when making any other user servicing adjustments mentioned in the Operator’s Manual.

WARNING –TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON:

- The ITCU is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities (that could affect a safe handling of the product), or lack of experience and knowledge. The ITCU shall only be operated by instructed and skilled persons.
- Use the ITCU only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
- Never operate the ITCU if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or exposed to water. Contact the nearest Coloreel approved service technician for examination, repair, electrical or mechanical adjustment. Refer to your distributor or you will find our contact information on the product.
- Never operate the ITCU with any air openings blocked. Keep ventilation openings of the ITCU free from the accumulation of lint, dust, and loose cloth.
- Keep fingers away from all moving parts.
- Never drop or insert any object into any opening.
- Do not use the ITCU outdoors.
- To disconnect, turn all controls to the off (“0”) position, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Only Coloreel approved service technicians may disassemble or access any inaccessible parts or areas of the ITCU.

SAVE THESE INSTRUCTIONS

2 Safety

2.1 Safety definitions

Warnings, cautions and notes are used to point out especially important parts of the manual.



Warning: Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not followed correctly.



Caution: Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not followed correctly.



Note: Used to give additional information necessary for basic use of the product.

2.2 General safety instructions



Warning: Always read the warning instructions that follow before using the product.

- Read and understand the Quick Start Guide, Full Operator manual, Installation manual and all the instructions on the product carefully before use.
- Do not install, operate or do service and maintenance if you do not fully understand the instructions or how to use the provided parts and products.
- The product creates an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury we recommend people with medical implants to consult their physician and the medical implant manufacturer before operating this product.
- The product is approved only with the equipment supplied or recommended by the manufacturer. Failure to use approved equipment can cause damage to the product.
- Electrical shocks can cause injuries. Do not touch the cables when the product is turned on.
- Always follow the instructions provided on the touchscreen.

2.3 Safety instructions for operation



Warning: Read the warning instructions that follow before you use the product.

- Make sure that the transportation locks are removed after installation before you start the product. Refer to the *Installation manual*.
- Do not use a damaged product. If the product is damaged it must be repaired by an Coloreel approved service technician.
- Do not use the product if the power cord or the plug is damaged. Hold the plug, not the cord, to disconnect from the mains socket. Do not hold the plug with wet hands.
- Do not touch any other part of the product except for the touchscreen during operation.
- Keep body parts away from rotating parts to avoid risk of serious injury.
- Keep body parts away from hot surfaces to avoid risk of serious injury.
- Keep body parts away from moving parts to avoid risk of crushing injury.
- Before starting the embroidery machine, carefully read, fully understand and follow the warnings and instructions contained in the embroidery machine's manual and in any on-product labels.

2.4 Safety instructions for maintenance



Warning: Read the warning instructions that follow before performing any maintenance on the product.

- Maintenance should be performed regularly. Failure to do so could damage the product or cause injury to the operator or others.
- Before performing any maintenance, stop the product completely and make sure that the power cable is disconnected. Allow the product to cool for 5 minutes.
- Clean the product regularly. Failure to clean the components can damage the product and give bad embroidery results.
- Only do the maintenance described in the Coloreel manuals or on the touchscreen. All other maintenance must be performed by an Coloreel approved service technician.
- Do not do any task that you feel unsure of. Speak to a Coloreel approved service technician if necessary.

2.5 Symbols on the product



WARNING! Hot surface. Keep body parts away.
See (A).



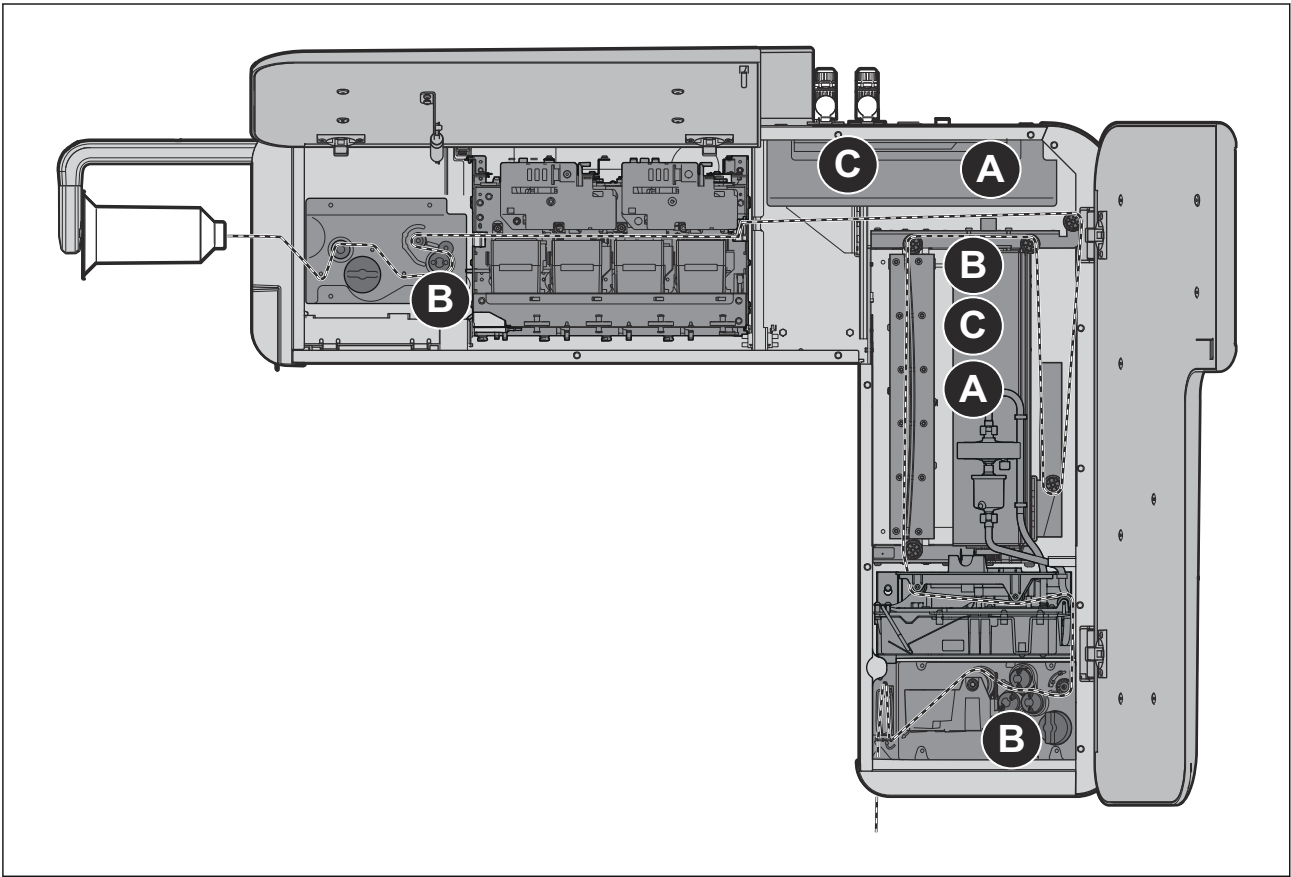
WARNING! Rotating parts. Keep body parts and clothing away.
See (B).



WARNING! Crush hazard. Keep body parts away.
See (C).



Disposal



Note: Other symbols/decals on the product refer to certification requirements for some markets.

3 Introduction

3.1 Document description

This Full Operator Manual gives basic instructions on how to operate and perform basic maintenance on the Coloreel ITC Unit, in the manual referred to as: ITCU.

The instructions in the Full Operator Manual refer to the default settings on the ITCU. The product can be installed with different operation settings. Speak to your Coloreel approved service technician to change the operation settings.

3.2 Product description

The ITCU is a stand-alone unit that colors and processes white, previously unprocessed thread. The ITCU can be used with many existing embroidery machine brands.

3.3 Target group

This Full Operator Manual is intended for personnel who operate and perform basic maintenance on the ITCU. Always read the Full Operator Manual carefully and make sure that you understand all of the instructions before use or maintenance.

Repair and some maintenance must be performed by a Coloreel approved service technician.

3.4 Contact Information

Coloreel

Address: Science Park
553 18 Jönköping, Sweden
Phone: +46 36 - 440 29 00
Email: info@coloreel.com
Webpage: www.coloreel.com

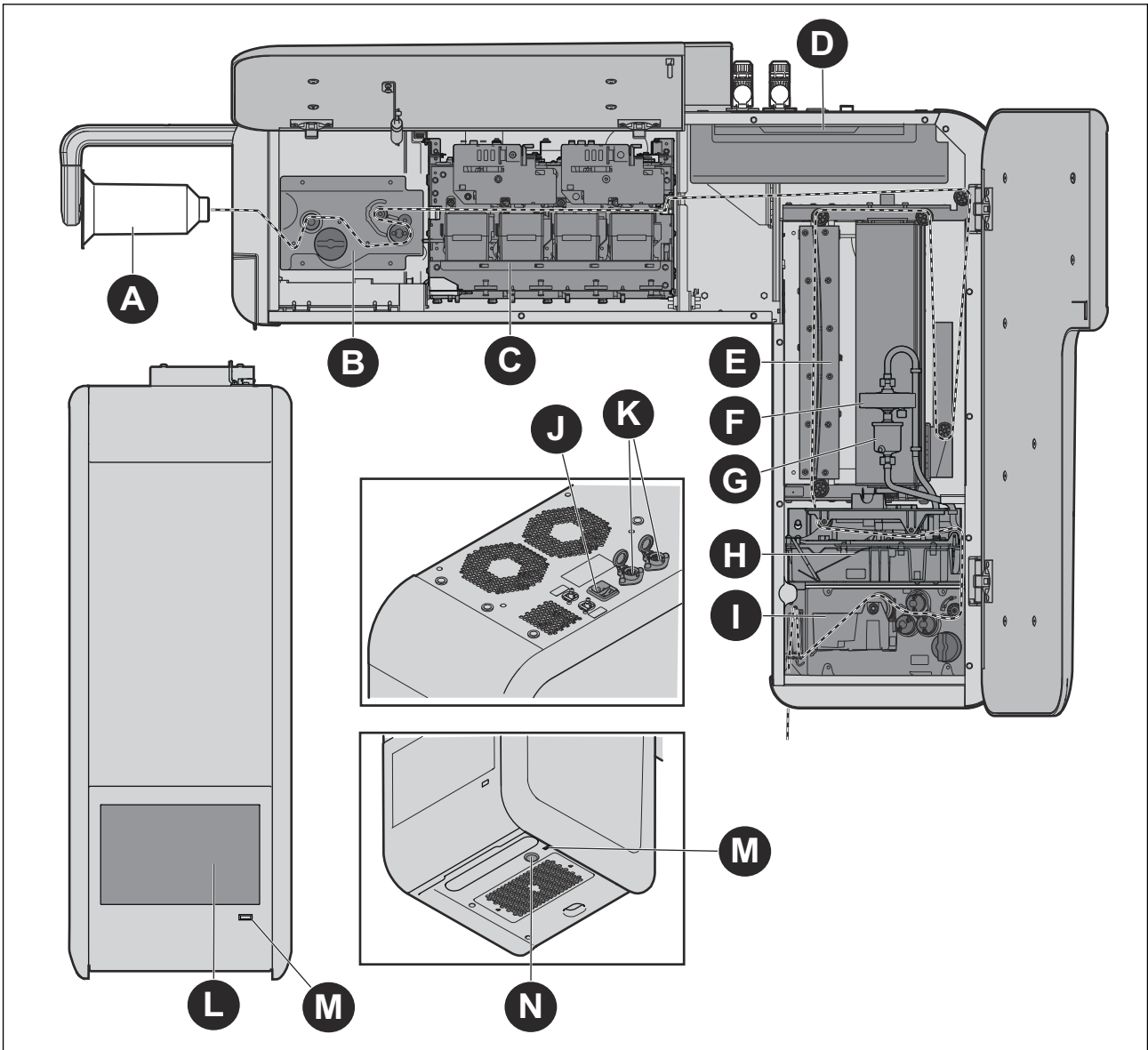
3.5 Product liability statement

We do not take any liability of the ITCU and its functionality if:

- The product is installed, adjusted or tampered with in a way that is not approved by an approved Coloreel technician.
- Spare parts, consumables and accessories that are not approved by Coloreel is used.
- Repairs and service are not done by an approved Coloreel technician.
- The ITCU is used in a way that it is not intended for.

For the full warranty and liability text, refer to the documentation that follow the installation.

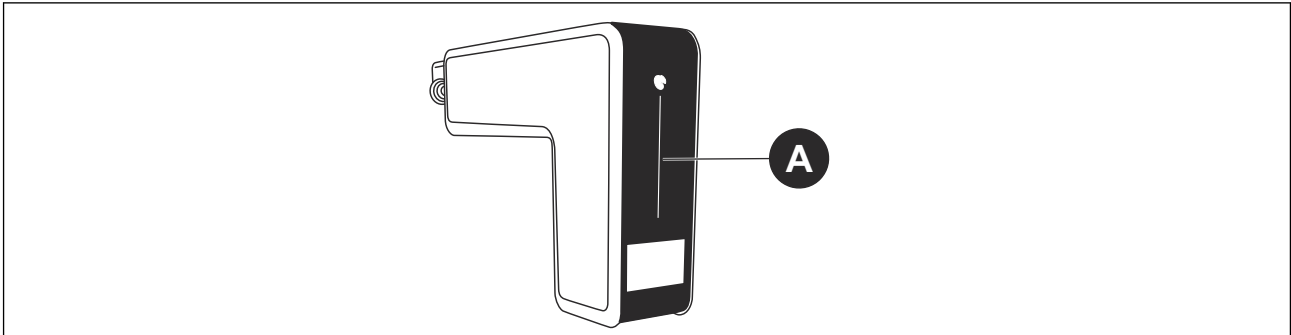
3.6 Product overview



- Thread reel and thread holder (A)
- Entry feeder (B)
- Print engine (C)
- Air filter (D)
- Fixation module (E)
- Carbon filter (F)
- Particle filter (G)
- Washing module (H)
- Lubrication module and exit feeder (I)
- ON/OFF Switch (J)
- Stitch sensor port (K)
- Display (L)
- USB port (M)
- Standby button (N)

3.7 ITCU LED light overview

The ITCU LED light (A) shows on the front of the ITCU. The different colors indicate the status of the ITCU.

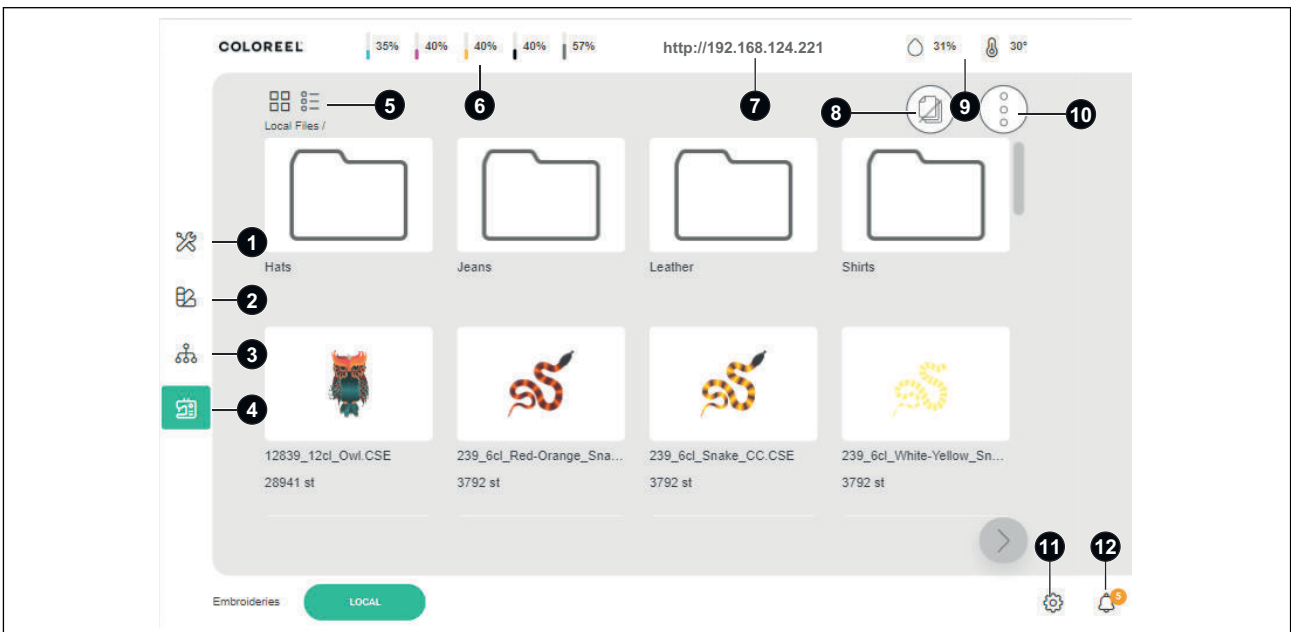


Green	The ITCU is printing, is ready to print or is autopaused.
Flashing green	The ITCU is about to perform maintenance during print. Refer to chapter 5.10 .
Yellow	The ITCU is warming up, or is warm but no print is selected.
Flashing yellow	The ITCU is in the transition phase when the ITCU is going into pause. Do not start the embroidery machine.
Pink	Error. The ITCU has an error notification that needs attention.
Blue	Maintenance or service. The ITCU performs maintenance tasks or is put into service mode.



Note: The LED light with status indication is available in the newer versions of the ITCU. In older versions of the ITCU, the LED light has the color green only.

3.8 Operator panel overview

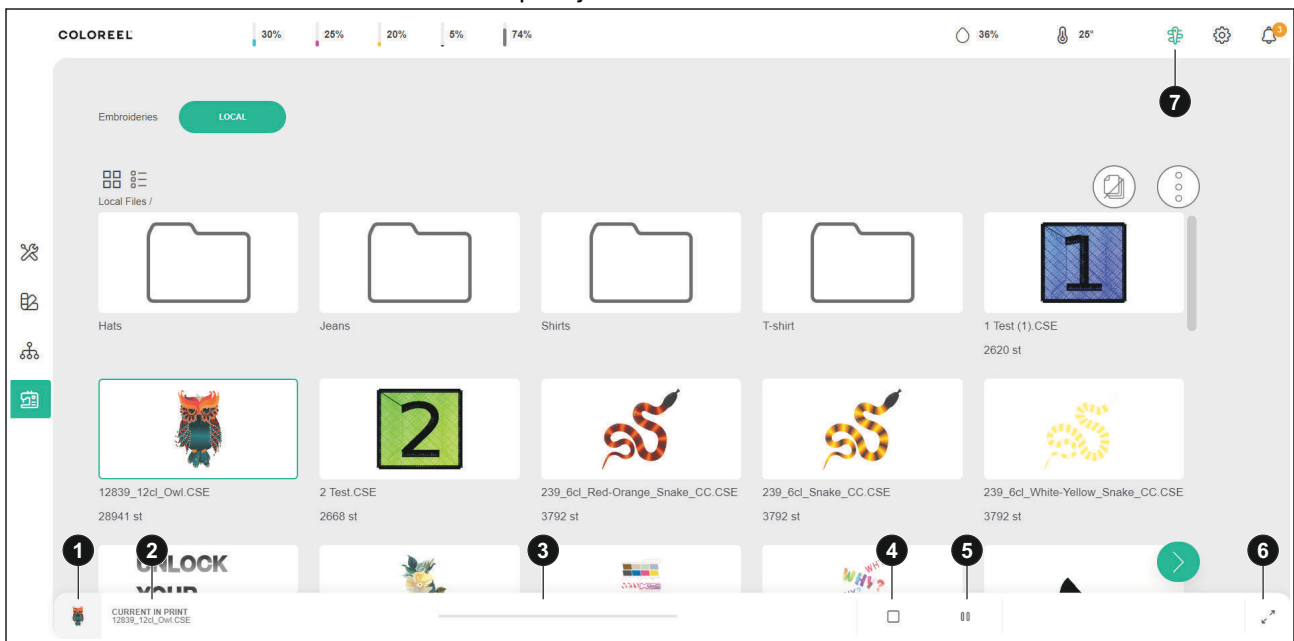


1. Maintenance
2. Swatch printing
3. Multi-head setup

4. Embroideries
5. Show gallery as a list or as thumbnails
6. Status bar. Click on the status bar for more information.
7. IP-Number
8. Multi-select
9. Humidity and temperature
10. Storage menu, manage the embroidery files
11. Settings
12. Notifications

3.9 Printing status bar

The printing status bar shows when you have an active print job. You can navigate in the menus of the ITCU and see the status of the print job at the same time.



1. Image of the active print job
2. File name of the active print job
3. Print progress
4. Start/Stop
5. Pause/Resume
6. Click/Tap to go to the print job page.
7. Active print symbol. Click/Tap to show/hide the printing status bar.

4 Preparations

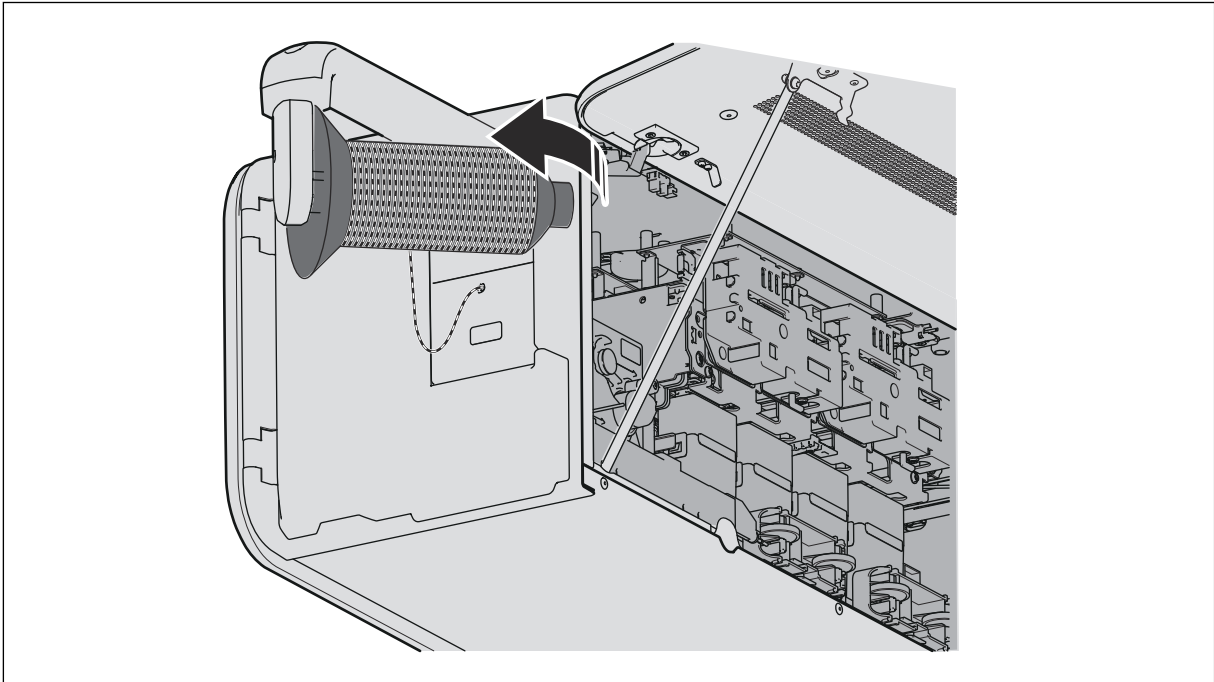
4.1 To assemble the thread



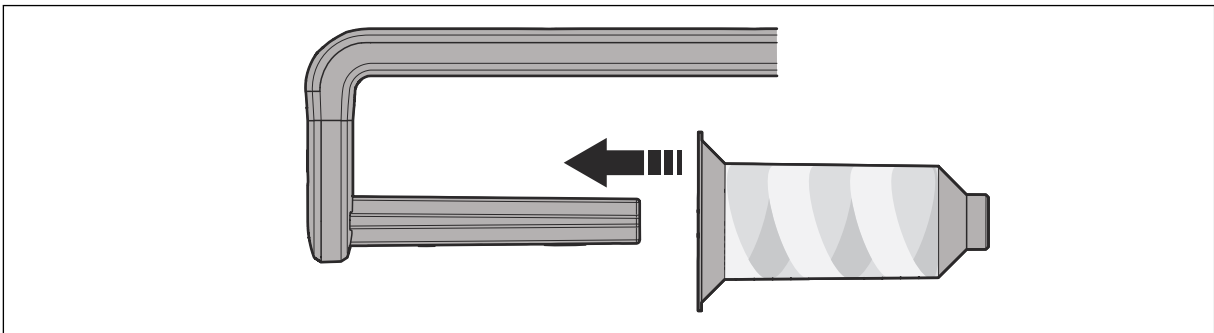
Caution: The ITCU must be threaded correctly for the product to operate correctly. Make sure that you follow the instructions of this manual carefully.

4.1.1 To place the thread on the Thread Reel Holder

- Push the Thread Reel towards you until it locks with a click.



- Place a spool of thread on the Thread Reel Holder.

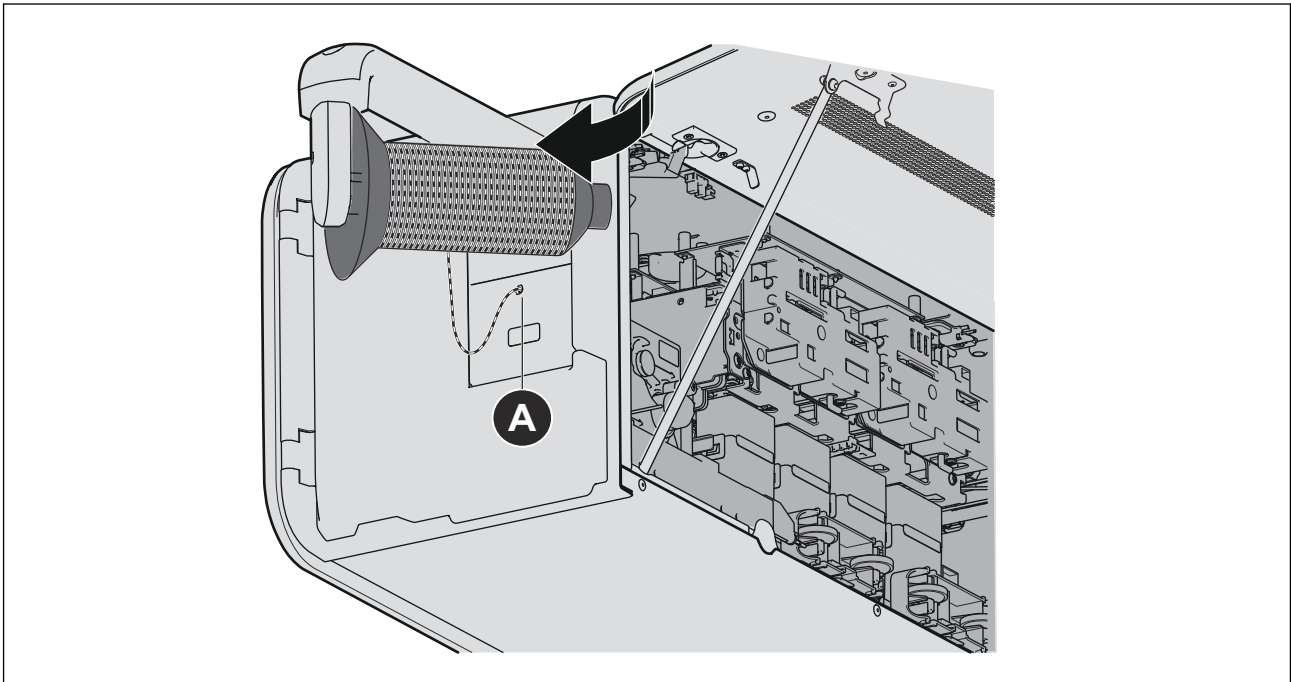


4.1.2 To assemble the thread through the entry feeder

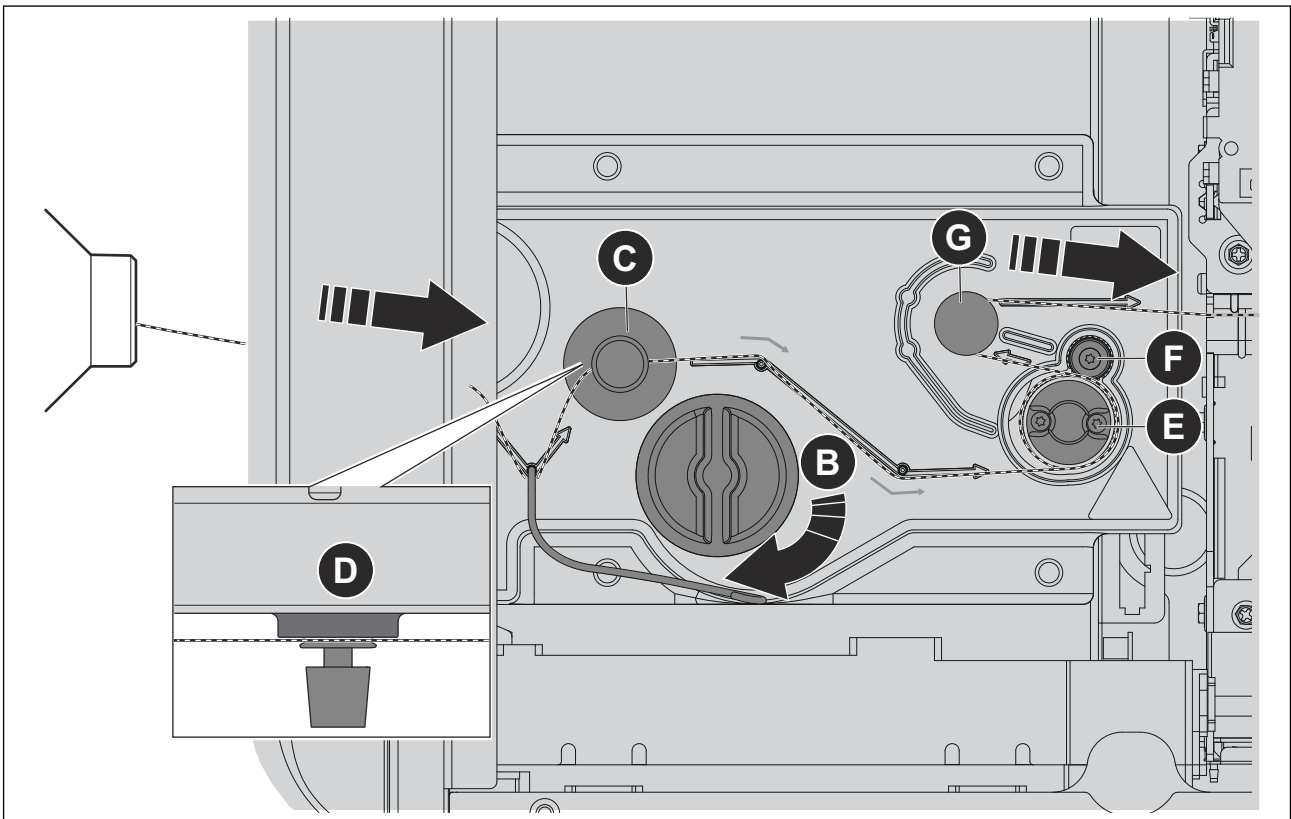


Note: To see where this part is on the ITCU, refer to [3.6](#).

1. Pull the thread through the entry hole (A) and push the thread reel holder back in place.



2. Turn the knob (B) fully clockwise to open the thread path.



3. Turn the guide wheel knob (C) counterclockwise to loosen the tension.
4. Pull the thread through the eyelet.
5. Put the thread behind the washer on the guide wheel (D) and pull the thread down and against you until the washer moves back into position.
6. Turn the guide wheel knob clockwise to tighten the guide wheel. Tighten the guide wheel knob fully and then loosen it 3 full turns (3x360°) counter clockwise.

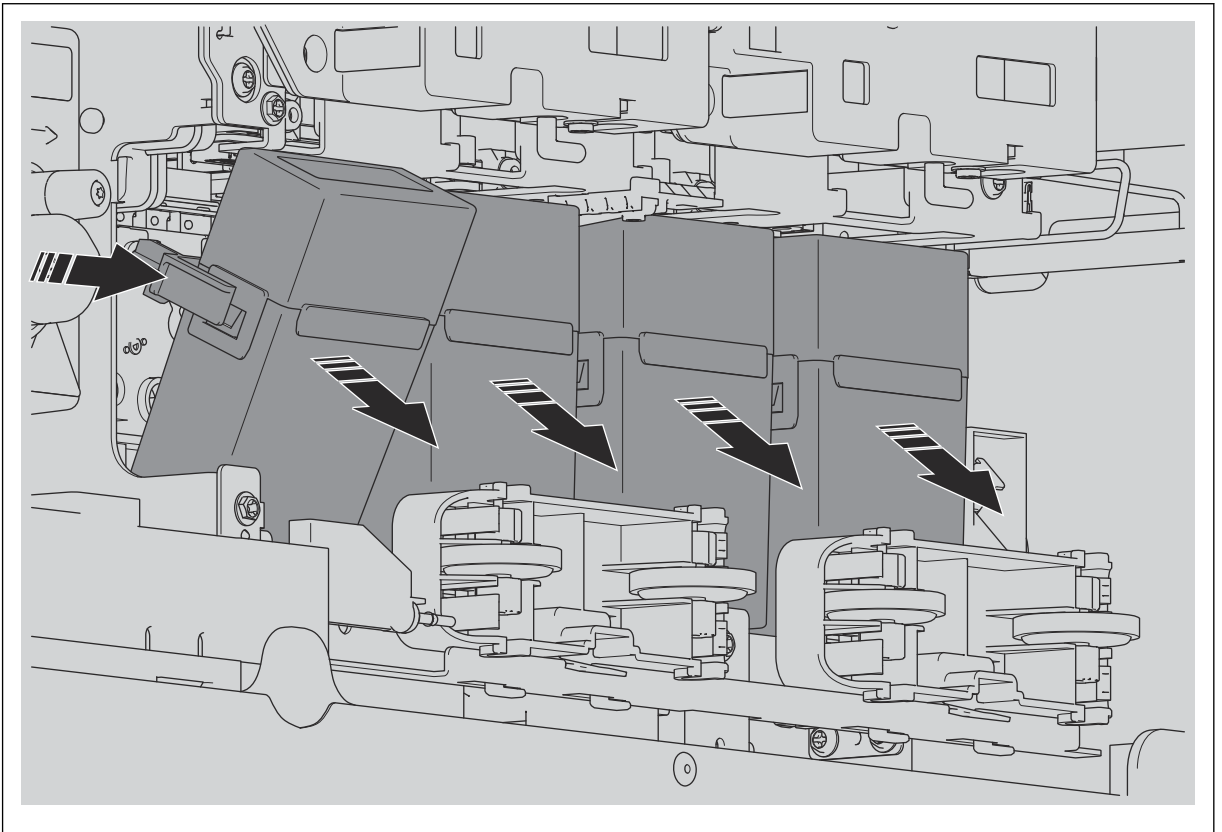
7. Pull the thread over the first pin and then pull the thread under the second pin.
8. Pull the thread between the guide wheel (E) and the drive wheel (F) of the entry feeder. Pull the thread 1.5 turns around the guide wheel (E).
9. Pull the thread 1.5 turns around the encoder wheel (G).

4.1.3 To assemble the thread through the Print Engine



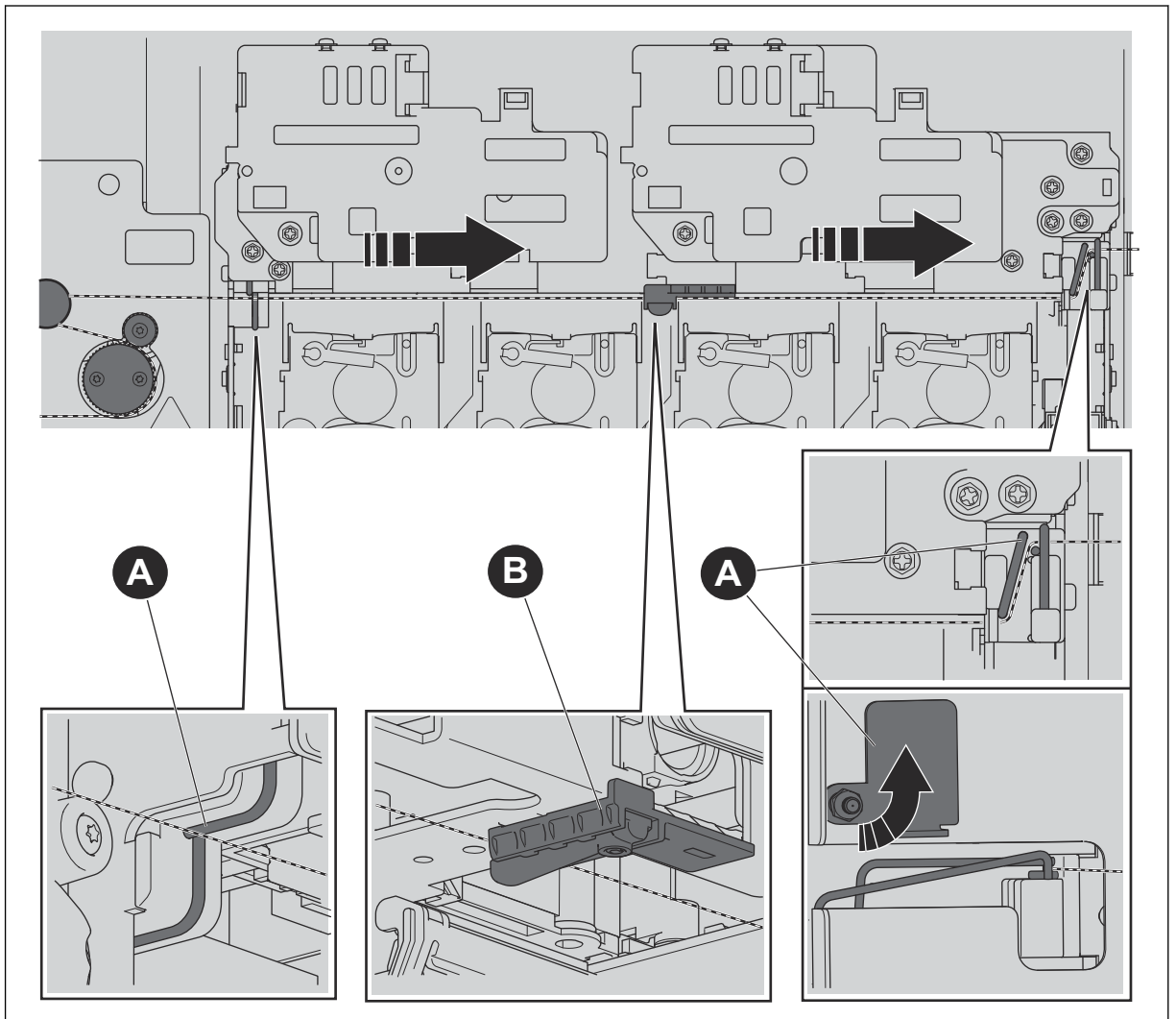
Note: To see where this part is on the ITCU, refer to [3.6](#).

1. Push the snap lock and remove the Ink Residual Cup. Remove all 4 Ink Residual Cups.



2. Pull the thread through the Print Engine and through the two guide pins (A) and make sure that the thread is put in the guide track.

3. Make sure that the thread is on the inside of the Thread Damper (B).



4. Install the 4 Ink Residual Cups again.

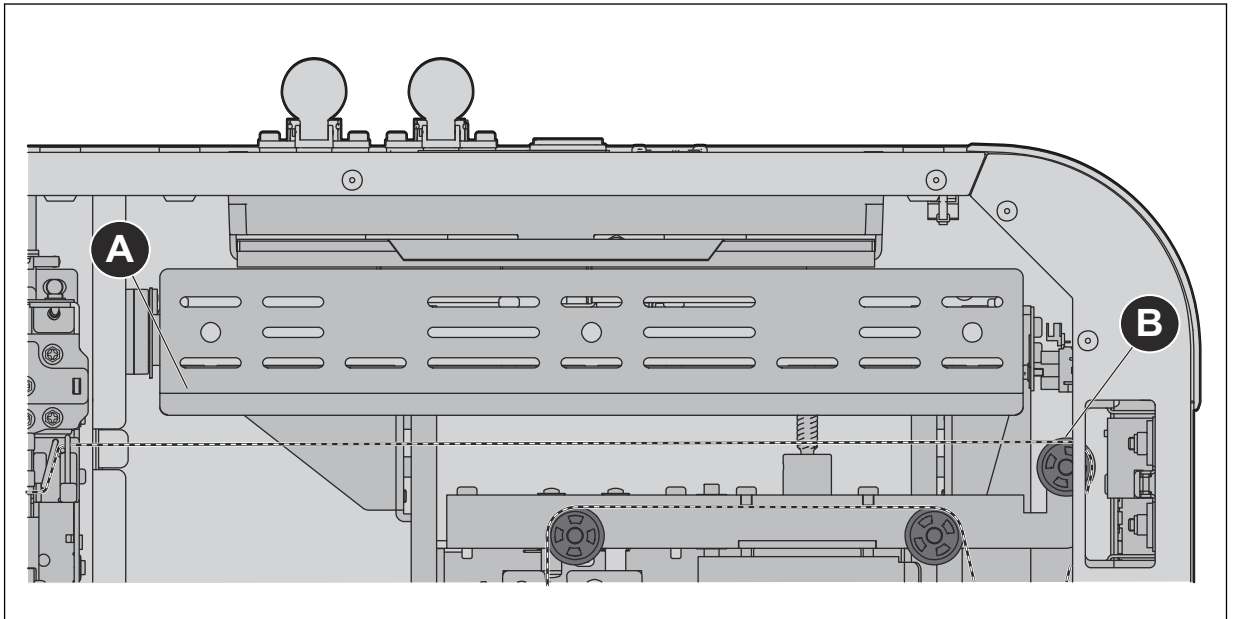
4.1.4 To assemble the thread through the Fixation Module



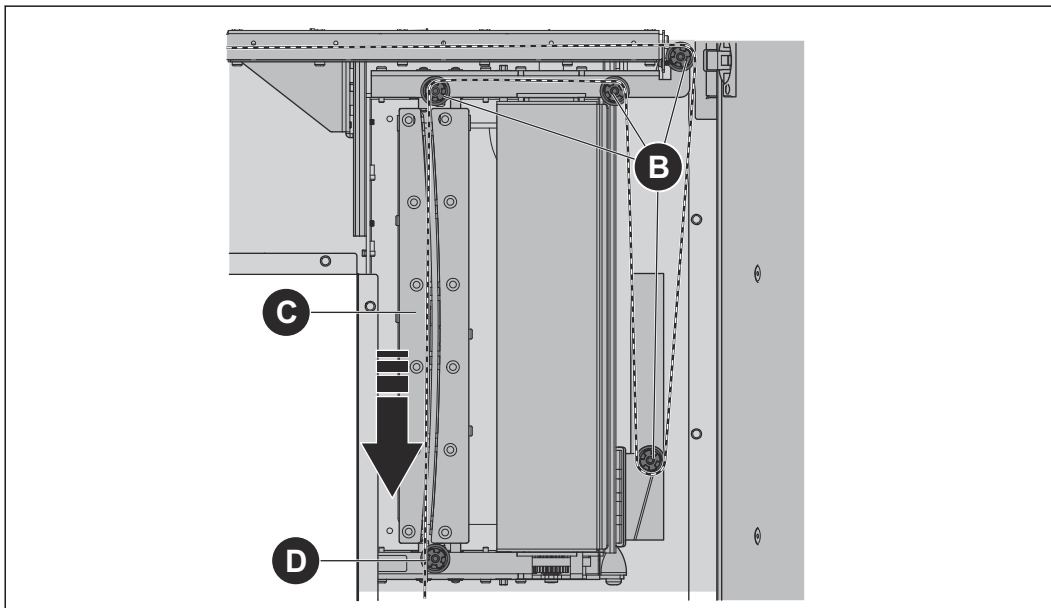
Note: To see where this part is on the ITCU, refer to [3.6](#).

1. Put the thread under the Air Fixation Unit (A).

2. Pull the thread through the guide wheels (B).



3. Pull the thread in front of the Contact Fixation Module (C).
4. Pull the thread on the left side of the guide wheel (D).

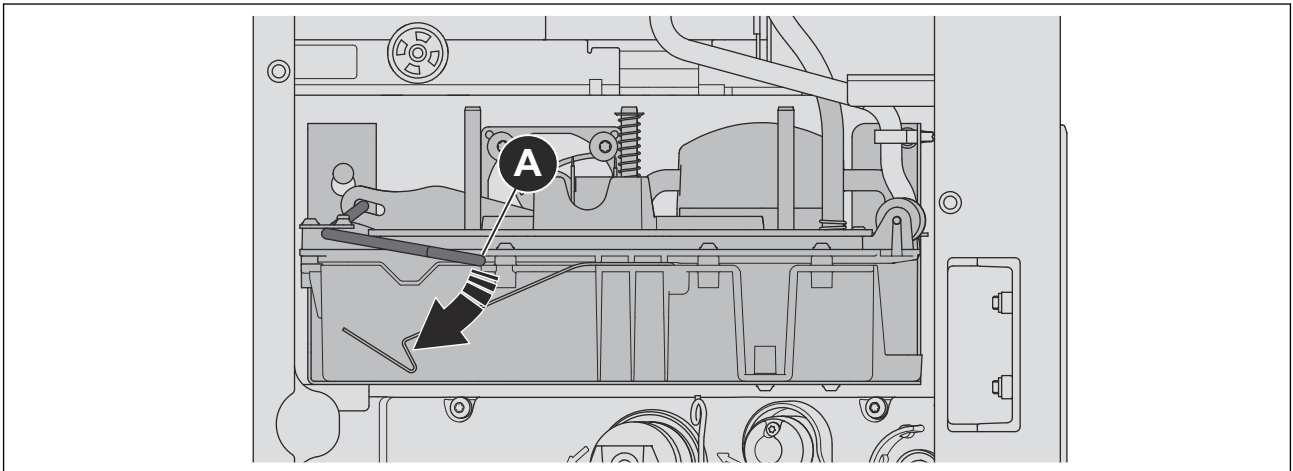


4.1.5 To assemble the thread through the washing module, version BOM032

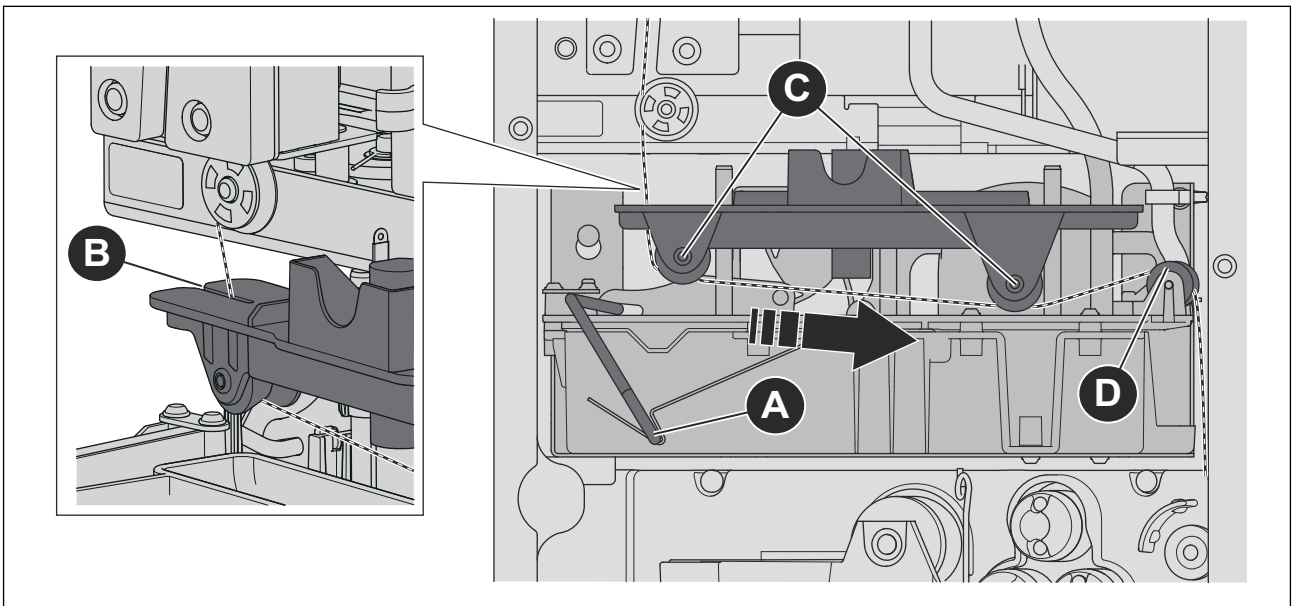


Note: To see where this part is on the ITCU, refer to [3.6](#).

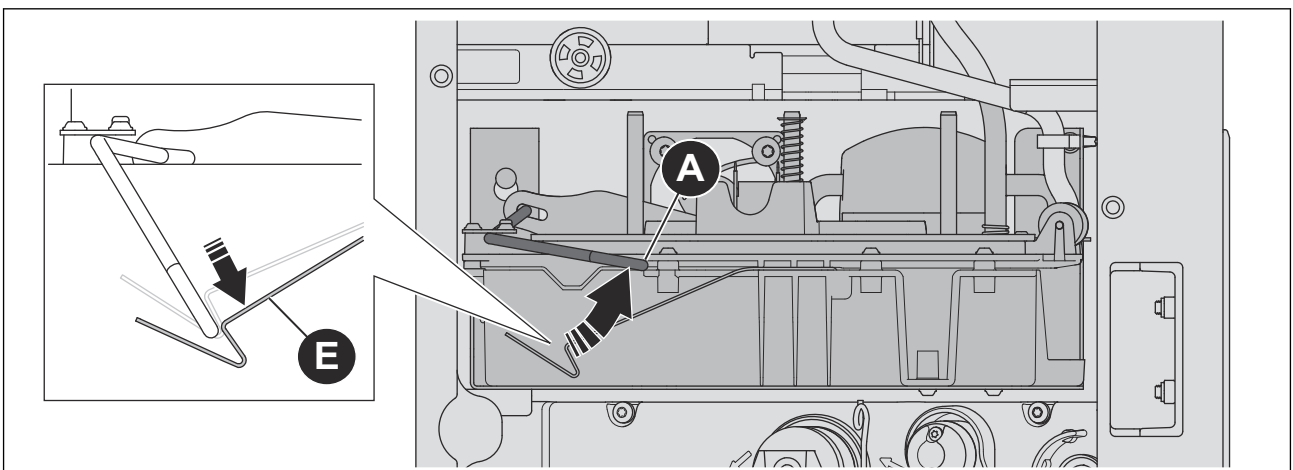
1. Push the lever (A) down to lift the top of the washing module.



2. Pull the thread through the notch of the lid (B).



3. Put the thread below and in the tracks of the guidewheels (C) and above the guide wheel (D) in the washing module.
4. Push down the locking mechanism (E) to release the lever (A). Hold the lever and lower the top of the washing module.

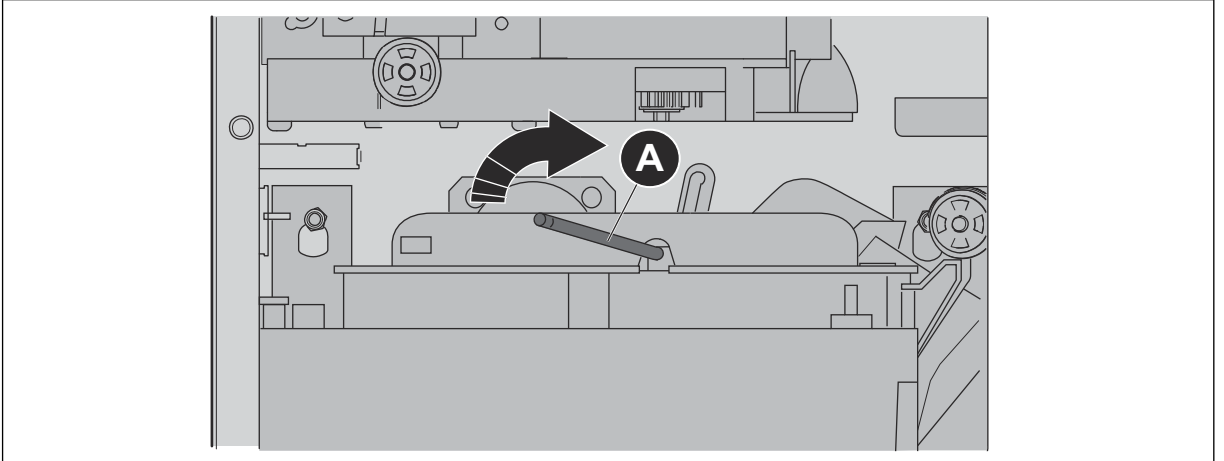


4.1.6 To assemble the thread through the washing module, version BOM006

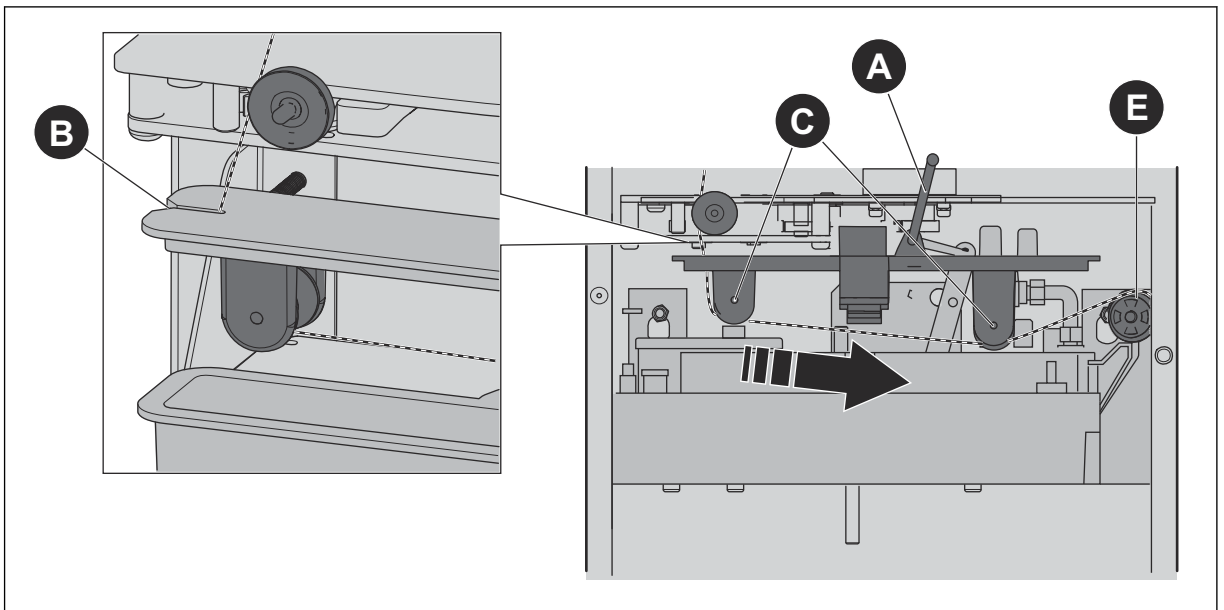


Note: To see where this part is on the ITCU, refer to [3.6](#).

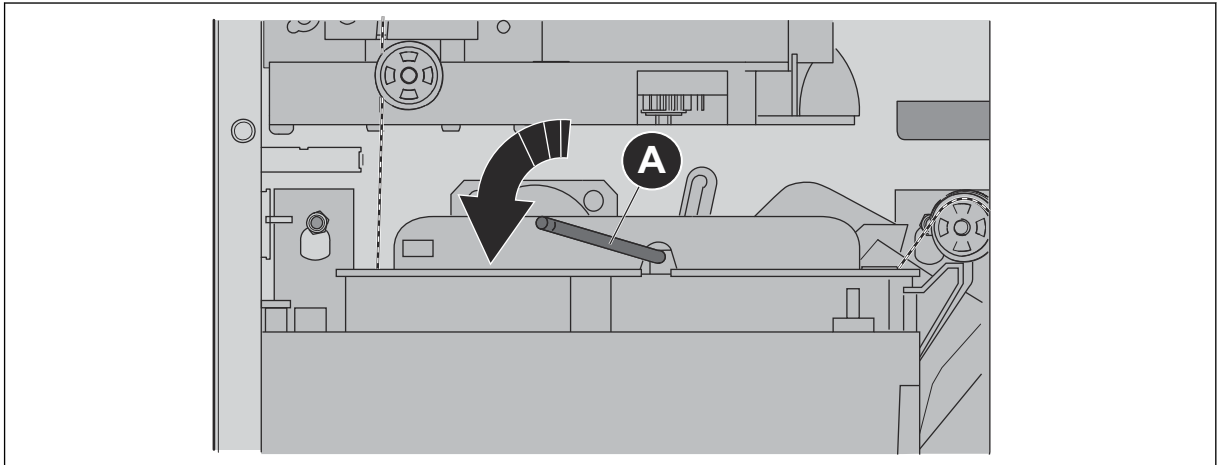
1. Push the lever (A) to lift the top of the washing module.



2. Pull the thread through the notch of the lid (B).
3. Put the thread below and in the tracks of the guide wheels (C) and above the guide wheel (E) in the washing module.



4. Push the lever (A) to lower the top of the washing module.

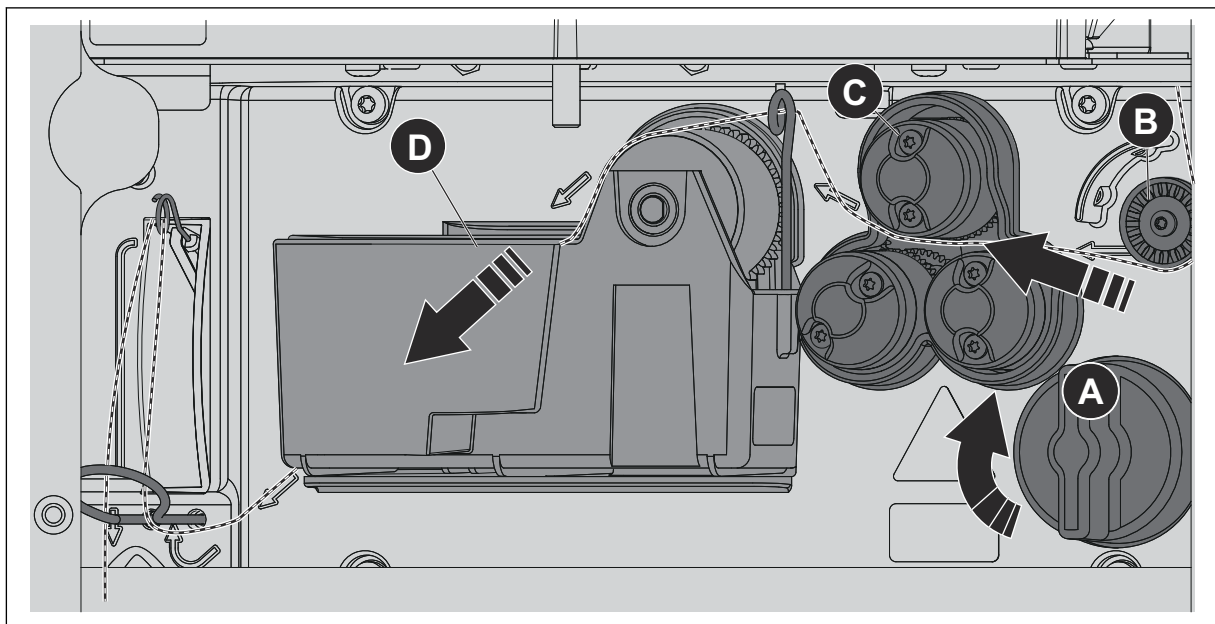


4.1.7 To assemble the thread through the lubrication module and exit feeder



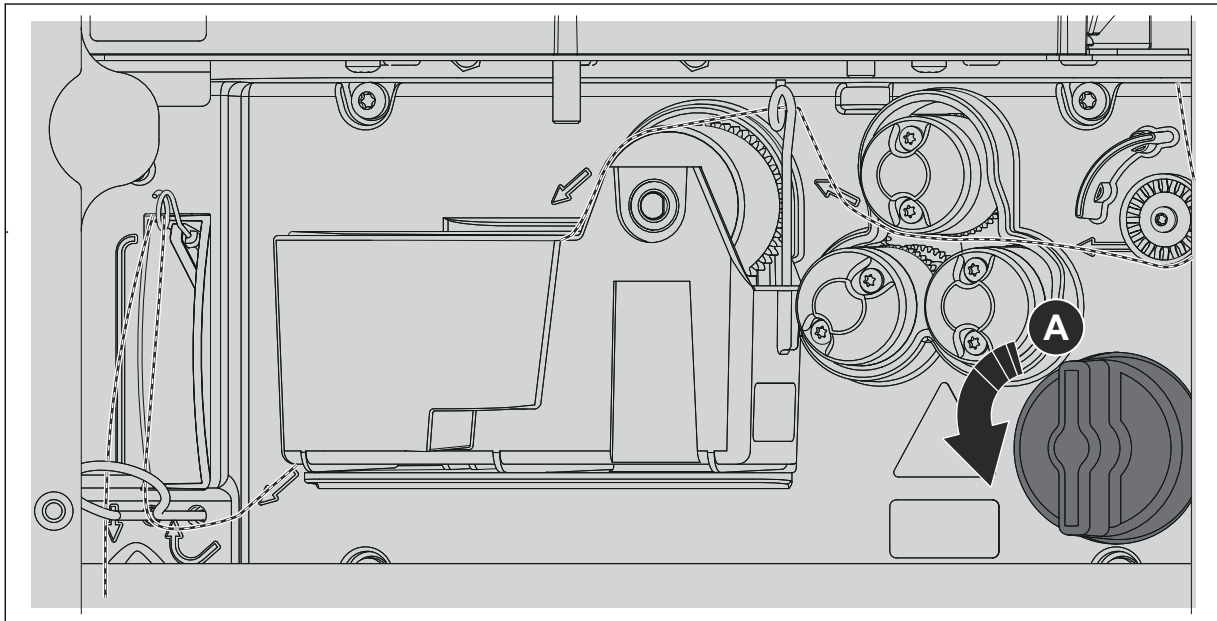
Note: To see where this part is on the ITCU, refer to [3.6](#).

1. Turn the knob fully clockwise (A) to open the thread path.



2. Pull the thread on the right side of exit encoder wheel (B).
3. Pull 50 cm of thread through the exit feeder (C).

4. Hold and turn the knob fully counterclockwise (A) to close the thread path.



Note: Do not let go of the knob when you turn it. If you let go of the knob, it can cause the thread to break.

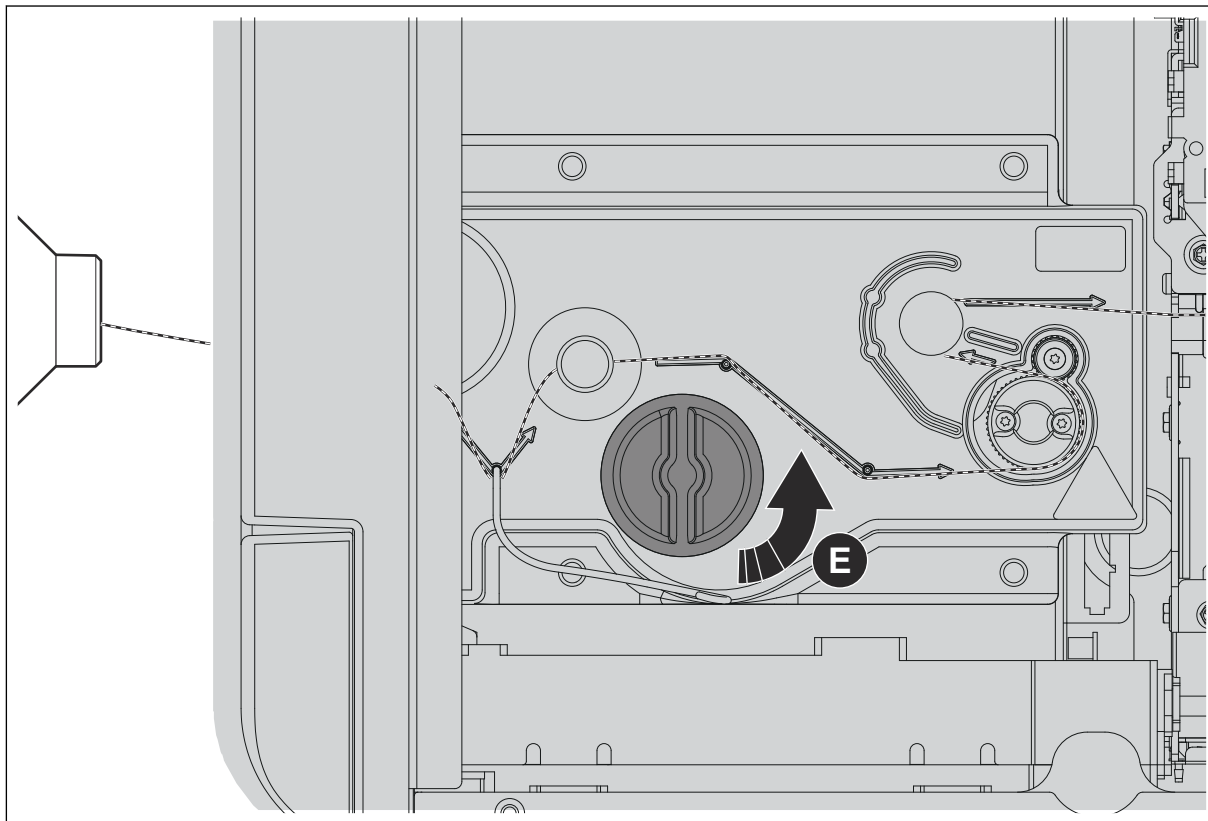
5. Remove the lubrication module (D) and pull the thread through the eyelet.
6. Put the thread on the lubrication wheel and through the lubrication module (D).



Note: It is possible to add more lubrication on the thread. If more lubrication is needed, put the thread directly on the lubrication wheel and not through the eyelet. If too much lubrication is used, the lubrication can discolor the fabric.

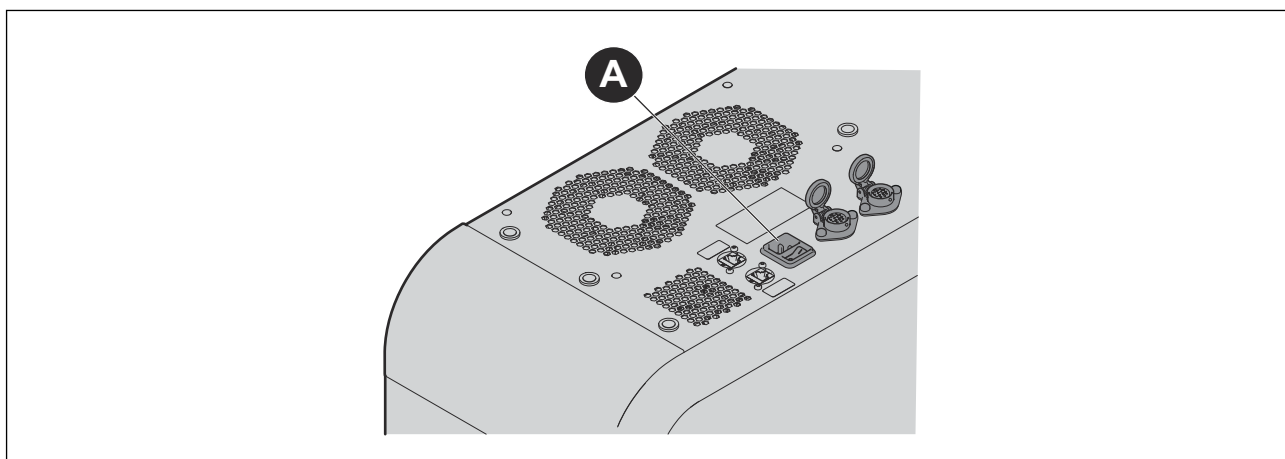
7. Put the lubrication module (D) back in its position.
8. Pull the thread through the guide loop, through the eyelet and on the left side of the guide loop.
9. Pull the thread through the exit hole.

10. Turn the knob (E) on the entry feeder to close the thread path.

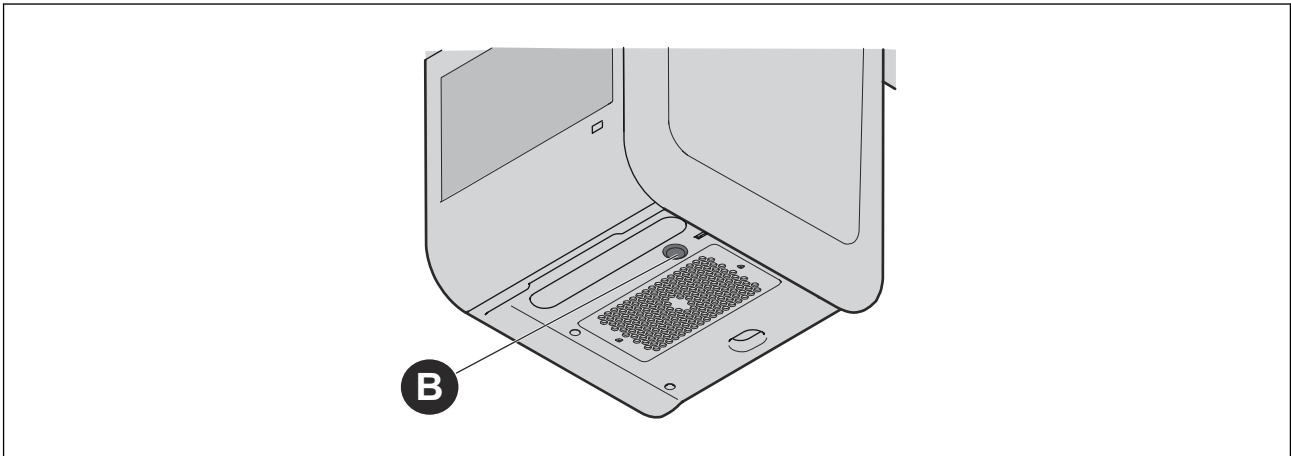


4.2 To start the ITCU

- Push the power button (A) to start the ITCU and wait until the touch screen has started. The warming up process starts automatically.

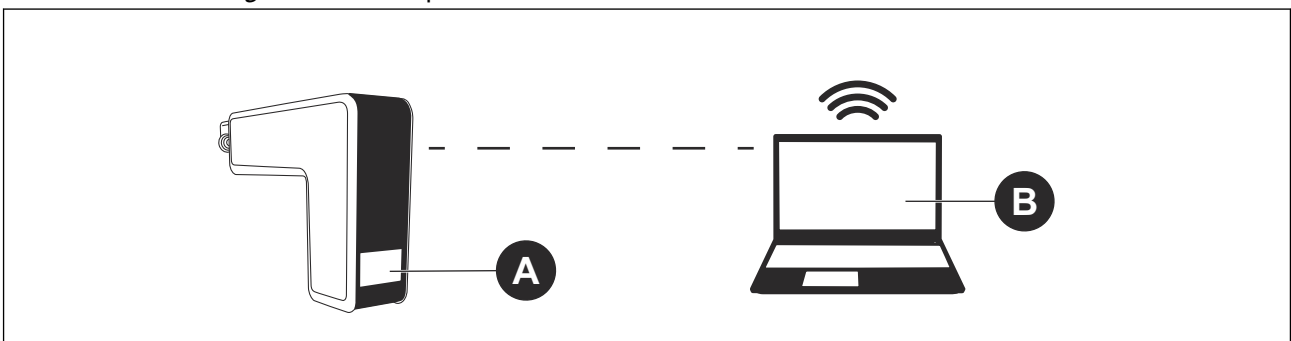


- If the product is on and in standby mode, push the standby button (B) to start ITCU.



4.3 System Overview

When you log into the operator panel from a ITCU (A), you can only log in with the operator PIN code. When you log into the ITCU from a web browser (B), you can log in with the operator or the admin login credentials. To see the settings that are available for the operator and admin login, refer to the *Settings menu* in chapter [9.1](#).



4.4 Operator panel on the ITCU

4.4.1 To log in

1. Enter the pin code the display.



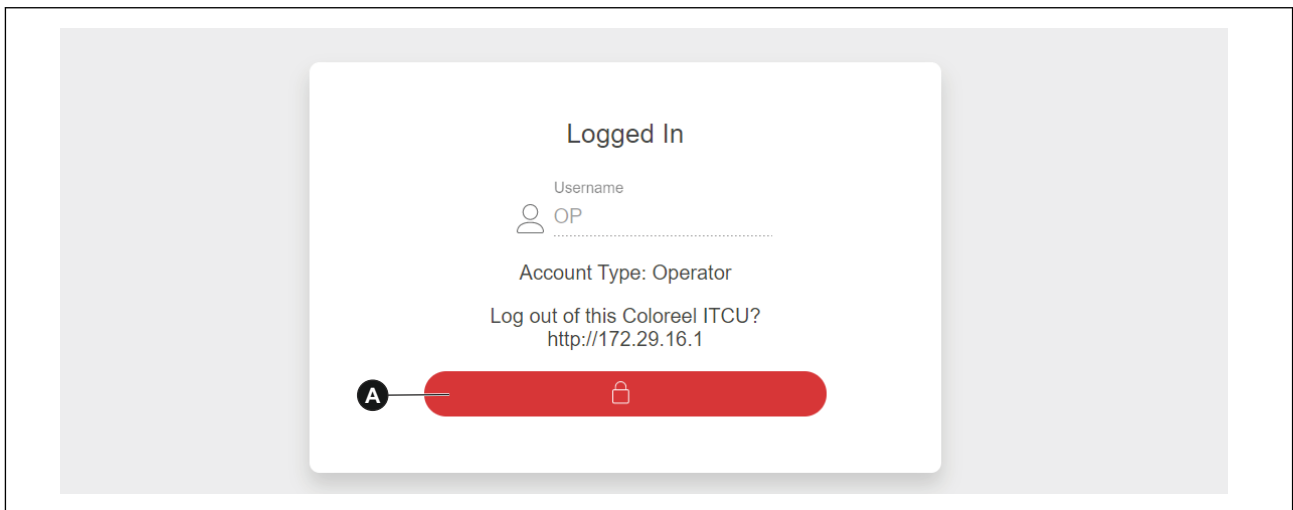
Note: The pin code is set by the service technician during installation.

2. Press the green check mark.



4.4.2 To log out from the touch screen

1. Select *Settings*.
2. Select *Account* in the settings list.
3. Select the *Lock* button (A).



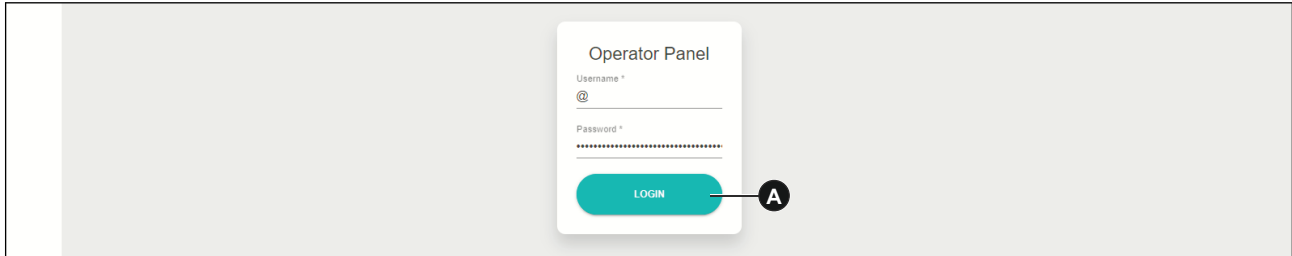
4.5 Operator panel from a web browser



Note: Use only Firefox or Chrome browsers to operate the ITCU from a web browser.

4.5.1 To login to the operator panel from a web browser

1. Enter the IP address of the ITCU in a web browser. You can find the IP address in the top of the operator panel of the ITCU. You can also find the IP address in Network settings, refer to [9.2](#). For example, <http://192.168.124.221/en>.



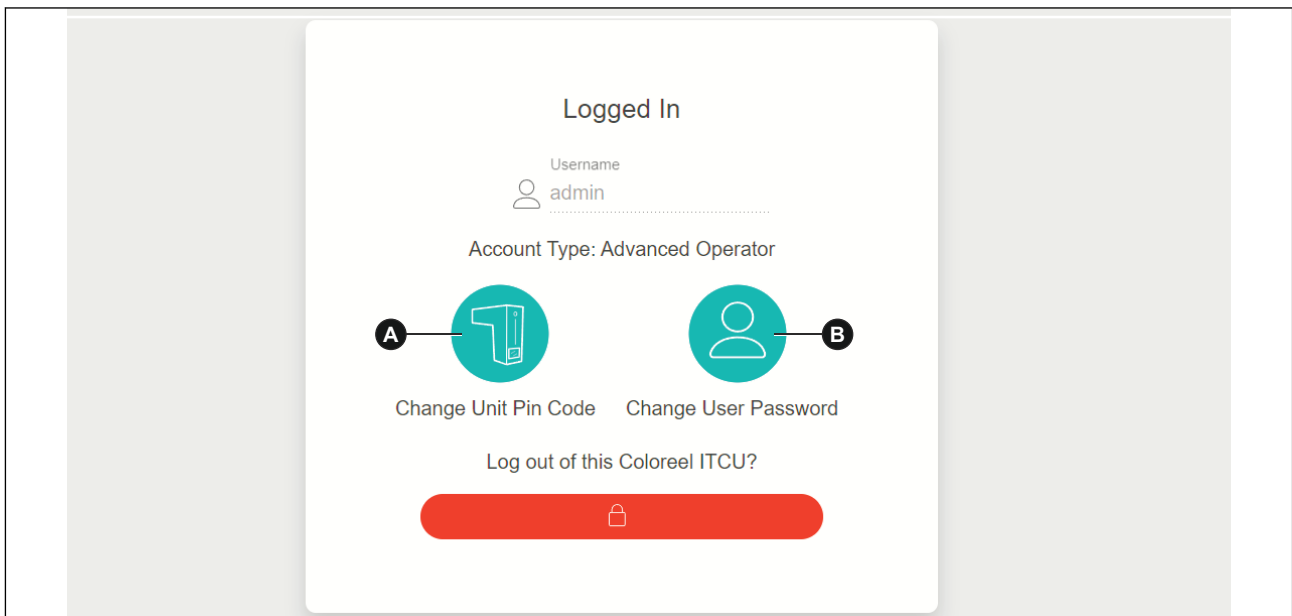
2. Enter the credentials and select login (A).



Note: Speak to Coloreel support if it is necessary to reset your password.

4.5.2 To change pin code or password

1. Log in. Refer to [4.5.1](#).
2. Select *Settings*.
3. Select *Account* in the settings list.
4. Click on the *Change unit pin code* button (A) to change the pin code of the ITCU. Click on the *Change user password* button (B) to change the password to log in with a web browser.

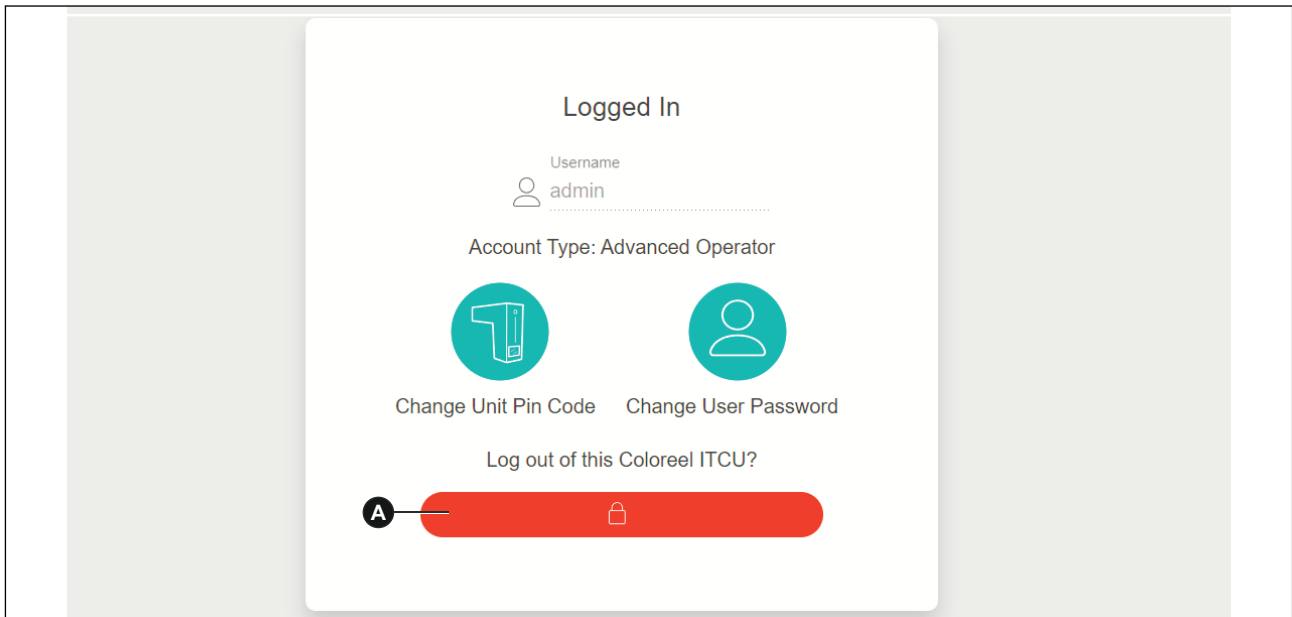


5. Enter the new login credentials.

4.5.3 To log out

1. Select *Settings*.
2. Select *Account* in the settings list.

3. Click on the *Lock* button (A).



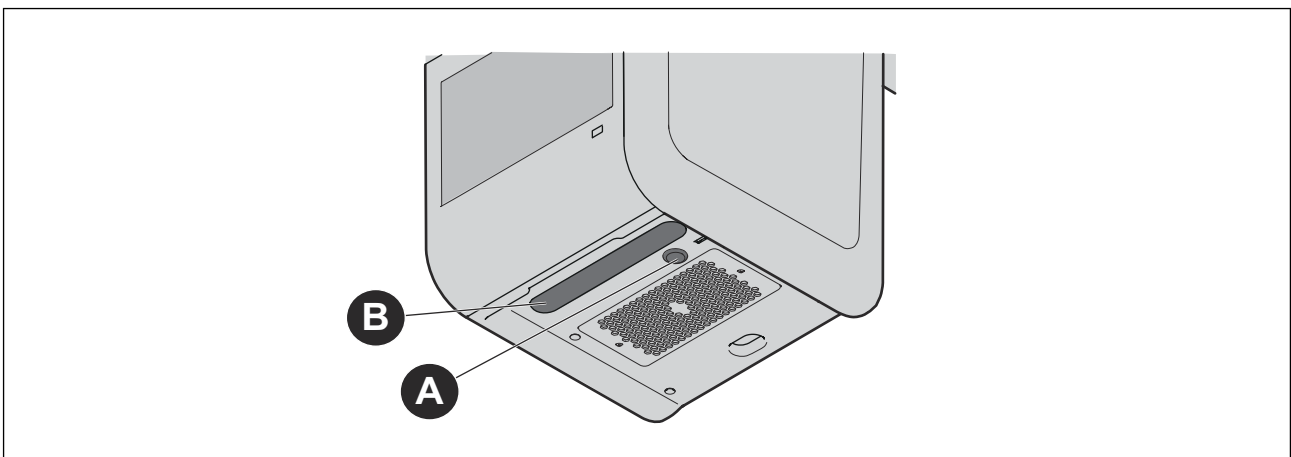
4.6 To stop and switch off the ITCU

Follow the instructions below to correctly stop and switch off the ITCU. Also, stop and switch off the ITCU correctly before the power cable is disconnected or if the power supply is switched off. If the ITCU is not switched off correctly, it can cause damage to the print engine.

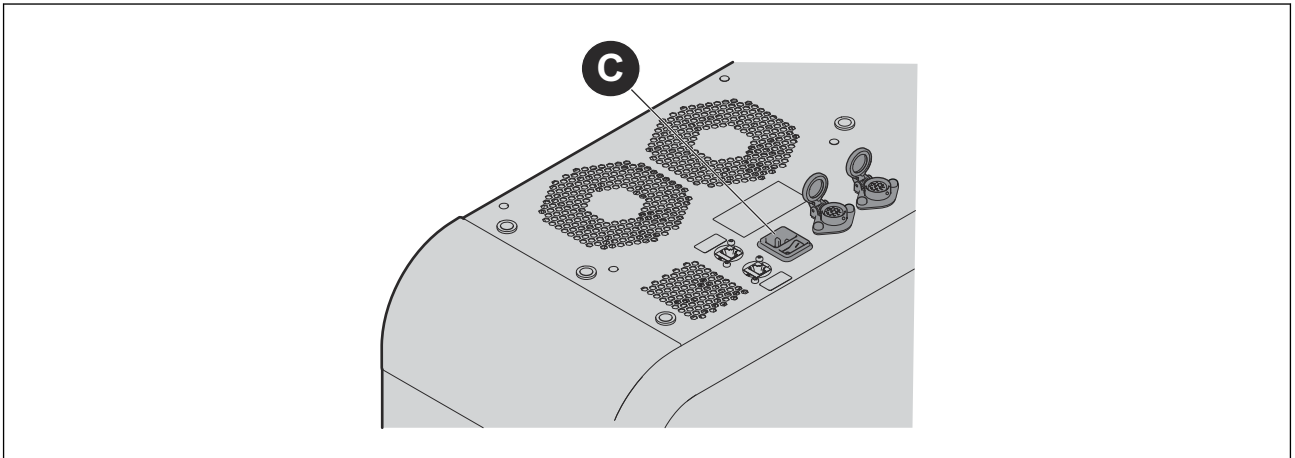


Caution: Start the ITCU within 50 minutes to avoid damages to the print engine, if the ITCU was not switched off correctly. For example, if the ITCU was switched off before it was completely stopped or if there was a failure of the power supply when the ITCU was operated.

1. Stop the print job. Refer to chapter [5.6.9](#).
2. Push the standby button (A) to stop the ITCU. Wait for the ITCU to complete the shut down sequence. The shut down sequence is completed when the LED light (B) goes off.



3. Push the power button (C) to switch off the ITCU.



5 Embroideries, setup and operation

5.1 To do before printing for the first time

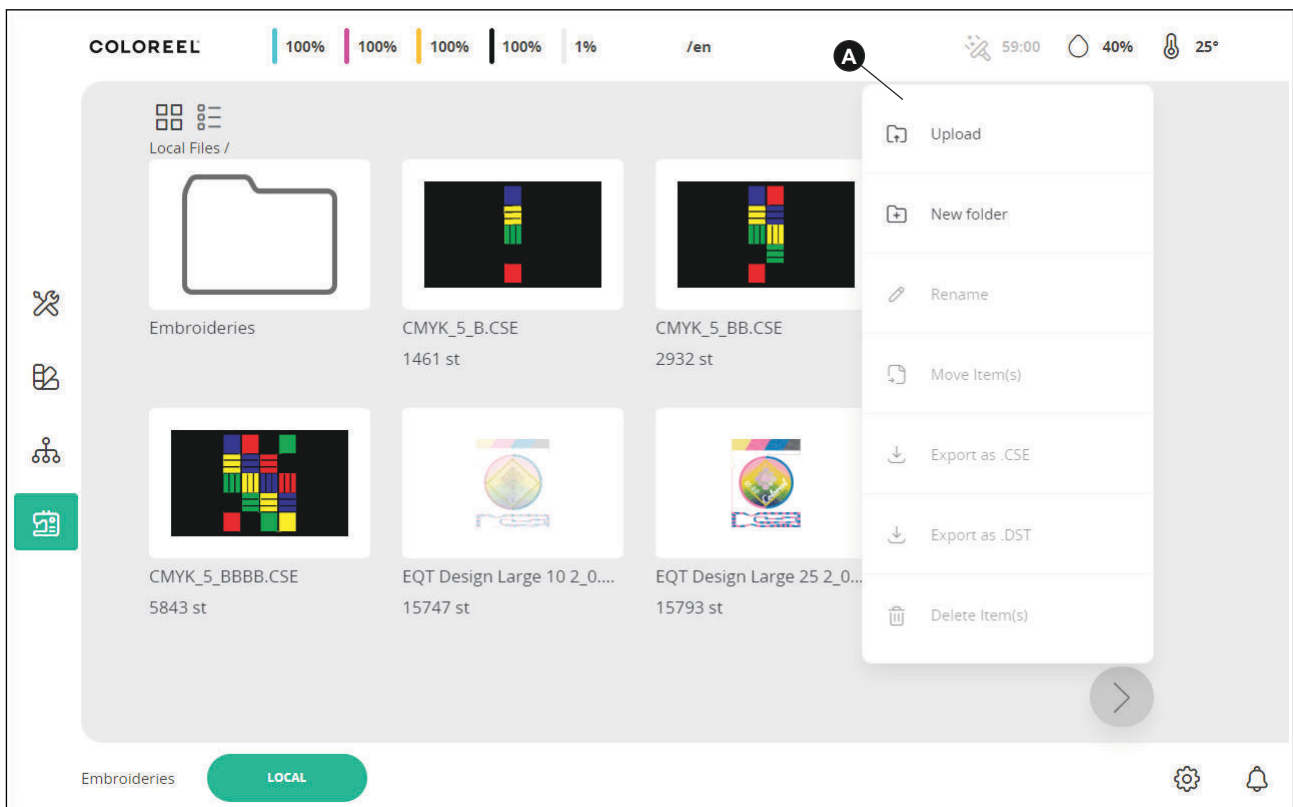
- To perform a cleaning and a deep cleaning for the print heads. Refer to [8.7](#).
- Perform a Spit Test on the thread and verify that there is color for C, M, Y and K. Refer to the Service Tool.

5.2 To do before printing

- Make sure that the ITCU is on.
- Make sure that the ITCU is correctly threaded.
- Make sure that the ambient temperature and humidity is inside the specified levels, both before and during print. Refer to, [11.1](#).
- Make sure that the waste tank is not full. The ITCU will show a notice on the display when the waste tank needs to be replaced. Refer to [8.3.3](#), if the waste tank needs to be replaced.
- Make sure that the cartridge ink levels are not low and in need of replacement. The ITCU will show a notice on the screen when the ink levels are low. Refer to [8.3.2](#), if an ink cartridge needs to be replaced.
- Go to the **Network** tab and make sure that the ITCU has an IP address. Refer to [9.2](#).
- Examine the washing fluid level. If the washing fluid level is low, add washing fluid to the container of the washing module. Make sure not to fill washing fluid above the maximum level of the container.
- Examine the lubrication level. If the level of lubrication is low, add lubrication fluid to the container of the lubrication module. Make sure that the lubrication level is within the minimum and maximum level of the container.

5.3 To upload a new design file

1. Select *Embroideries* in the operator panel. Refer to [3.8](#).
2. Click on the button for the *Storage menu* (A).

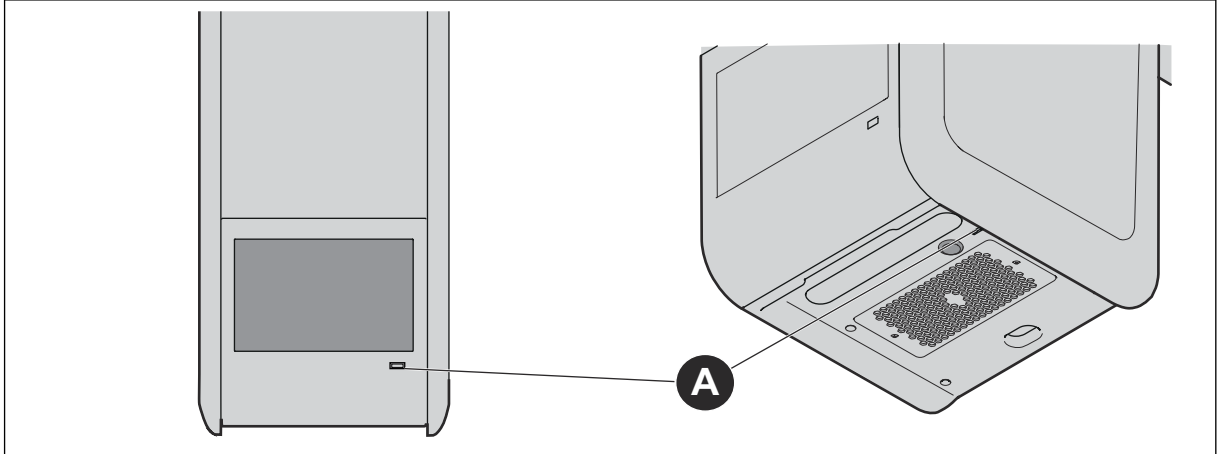


3. Select *Upload*.

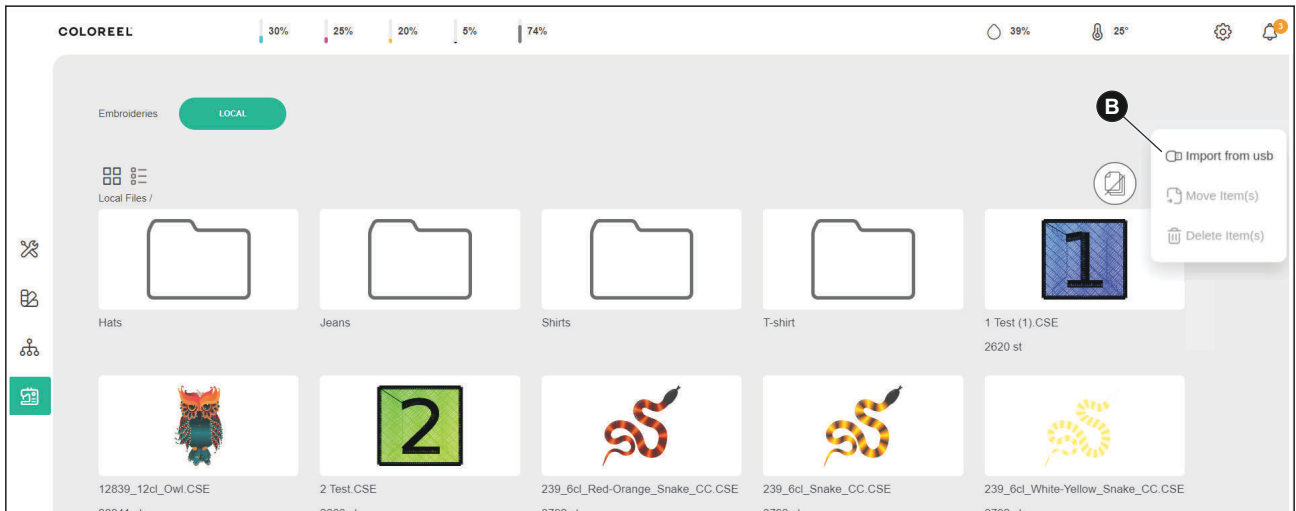
4. Select a Color Management file (.CSE file) on your computer or from an USB storage connected to the PC.
5. Click on the .CSE file(s) to upload it to the ITCU. Once uploaded, the design will be visible in the *Embroideries* gallery.

5.4 To import designs from an USB

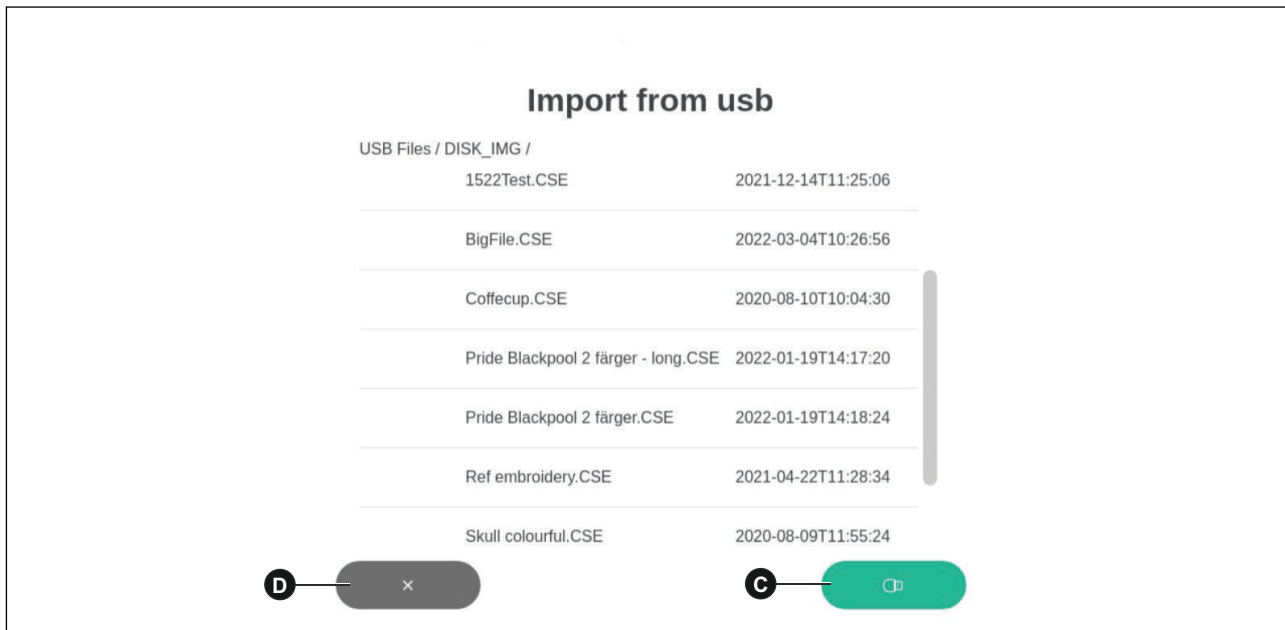
1. Insert an USB with .CSE files to one of the USB ports (A) of the ITCU.



2. Select *Embroideries* in the operator panel. Refer to [3.8](#).
3. Select *Import from usb* (B) in the storage menu.

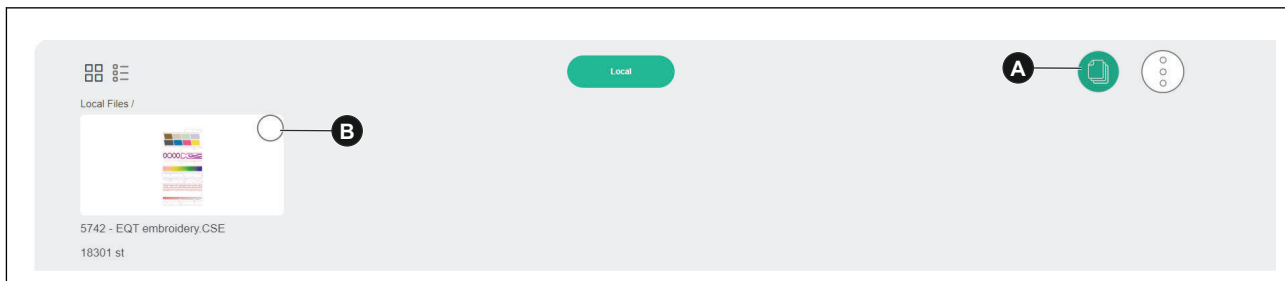


4. Select a file and tap on the *Import* button (C). The file is imported to local files on the ITCU and you can view it in the Embroideries gallery. Tap on the *Close* button (D) to close the import window.



5.5 To manage design files in the embroideries gallery

1. Select *Embroideries* in the operator panel. Refer to 3.8.
2. Click on the button for the *Storage menu*. Refer to 5.3.
 - a. Select *New folder* to make a new folder.
 - b. Select *Rename* to give a file or a folder a new name.
 - c. Select *Move item(s)* to move the selected file(s) to a folder.
 - d. Select *Export as .CSE* to export the selected embroidery as a .CSE file to an USB storage or a folder on your computer.
 - e. Select *Export as .DST* to export the selected embroidery as a .DST file to an USB storage or a folder on your computer.
 - f. Select *Delete Item(s)* to remove a design file or a folder of design files. The selected file(s)/ folder is removed permanently.
 - g. Select *Multi-select* button (A) and select the files (B) to manage several files at once.



3. Click on (C) to confirm. Click on (D) to exit.



5.6 To print a design

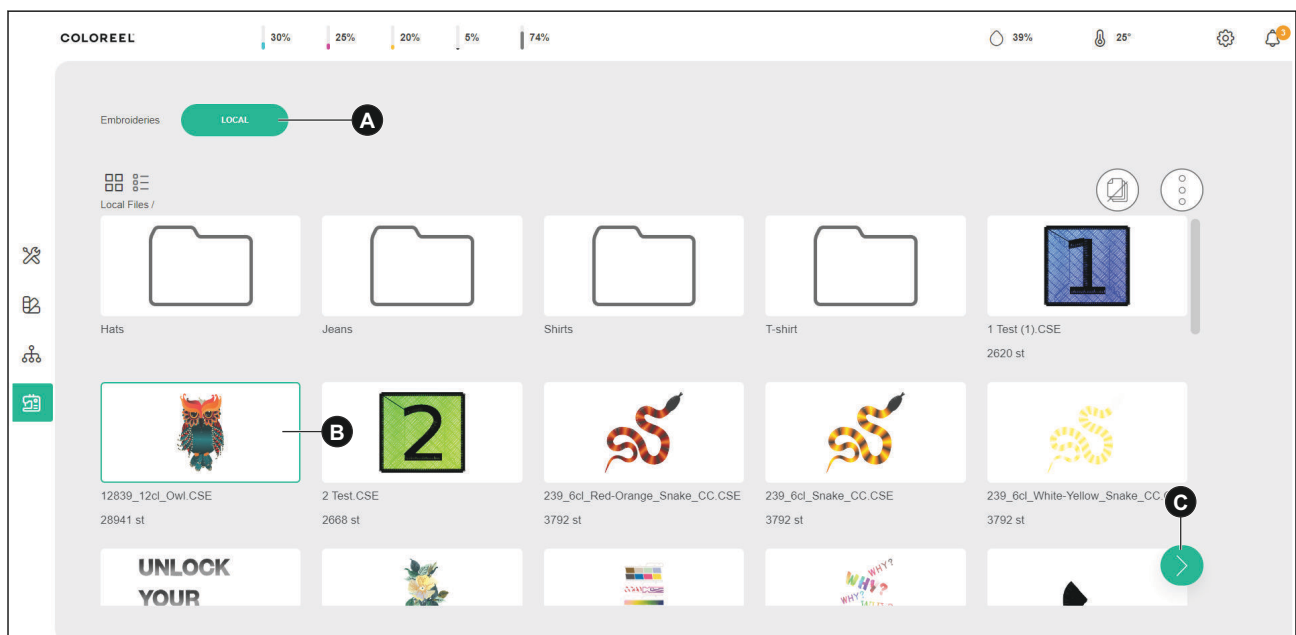
5.6.1 To make a new active setup

It is only possible to make a new active setup when you are logged in as an admin from a web browser. When you make a new active setup, it is important that you do 2 test embroideries on the fabric that you want to use before the start of the production.

- Follow the steps in the *To make a new active setup* instruction in chapter [9.4.1.2](#).

5.6.2 To start a print job

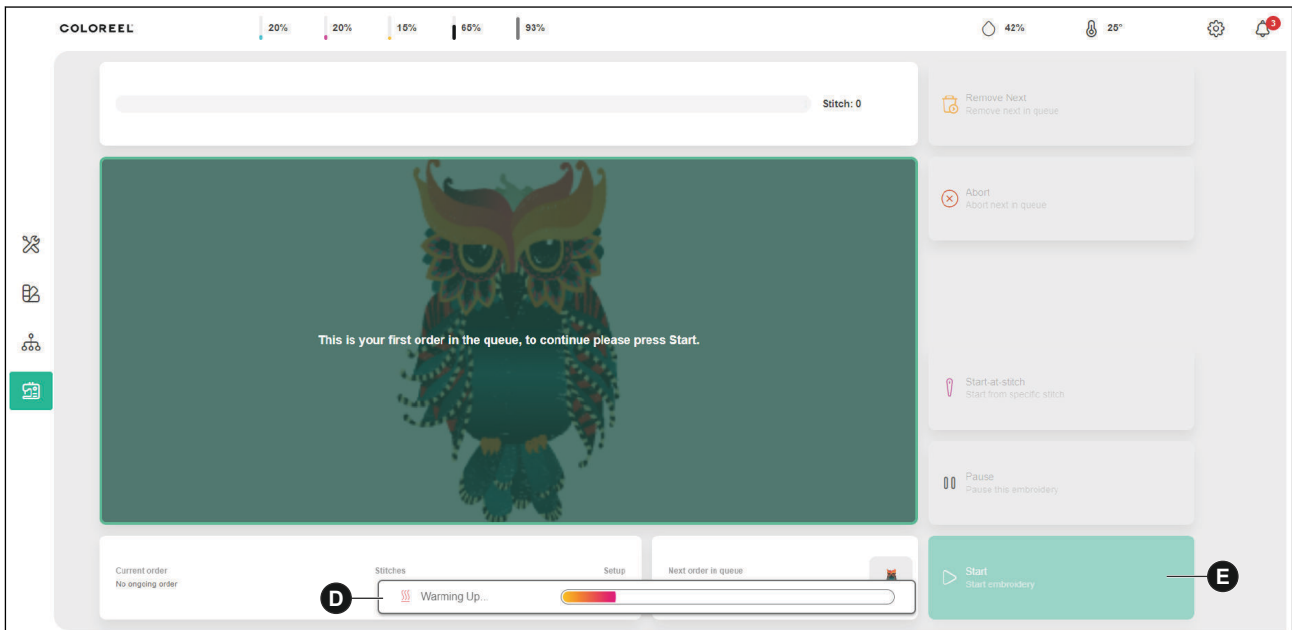
1. Make sure that the stitch file (.DST) and the color file (.CSE) are created correctly. Speak to your distributor for instructions.
2. Select *Embroideries* in the operator panel. Refer to [3.8](#).
3. Select the *Local* tab (A) or another of the storage tabs.



Note: If you want to upload a new design to the ITCU, refer to [5.3](#).

4. Select a design (B). The green border indicates that the design is selected.
5. Click on the forward button (C). A pop-up window shows for the CCP setup.
6. Select the CCP setup that you want to use in the drop down list and click on the check mark or click on the *Continue with current setup* button. The selected design shows. Refer to [9.4](#) for more information on CCP setups.

7. Wait for the ITCU to complete the warming up process (D). When the warming up process is completed, the *Start* button becomes green and clickable. Refer to chapter 9.3 to start or stop the warming up process manually.

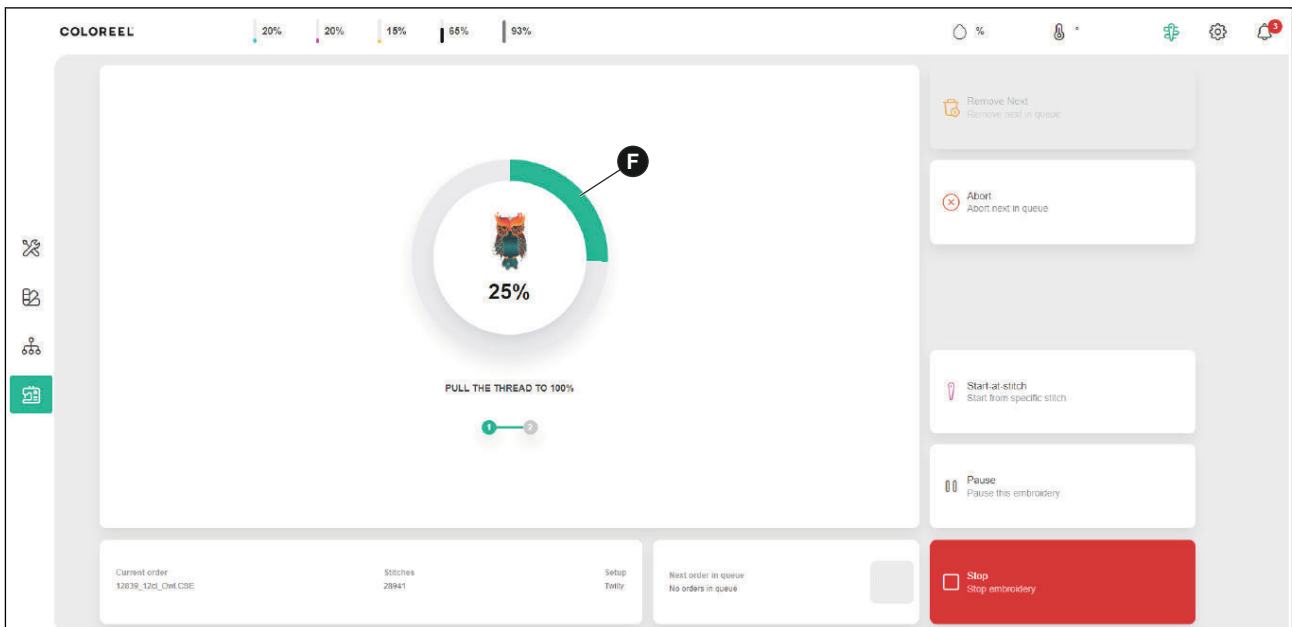


8. Click on the *Start* button (E). A pop-up window will ask you to pull the thread. Refer to 5.6.3.

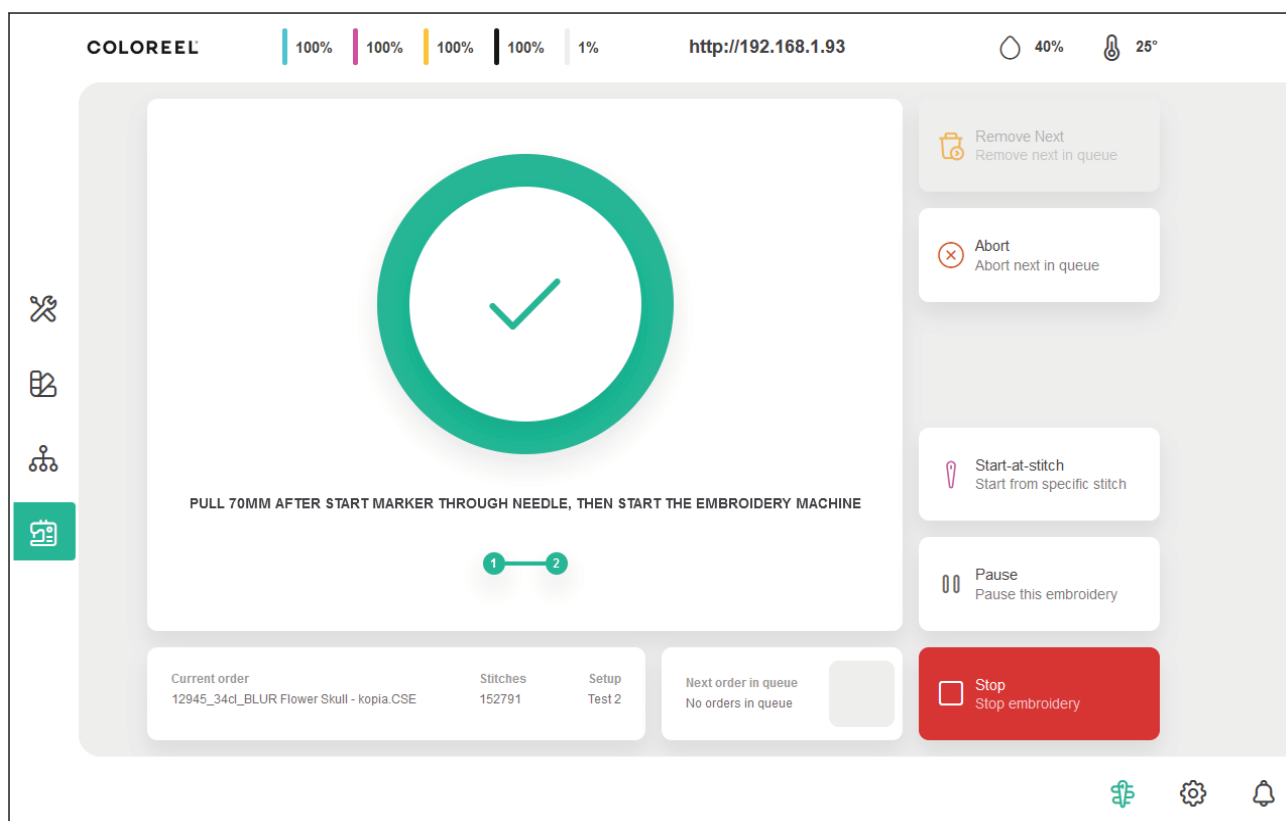
5.6.3 To pull the thread

When you have started a print job, a pop-up window will ask you to pull the thread.

1. Pull the thread until the progress ring (F) reaches 100%.



2. Pull the start marker on the thread to through the needle of the embroidery machine. Continue to pull the thread until the end of the start marker is 70 mm / 2.75 in. from the needle.



3. Start the embroidery machine.

When a print job is finished, the ITCU will print a new start marker for the same embroidery again. If you have a different embroidery in queue, the ITCU will print a new start marker for the embroidery in queue.

During print, the stitch number indicates the ITCU's progress through the print job.

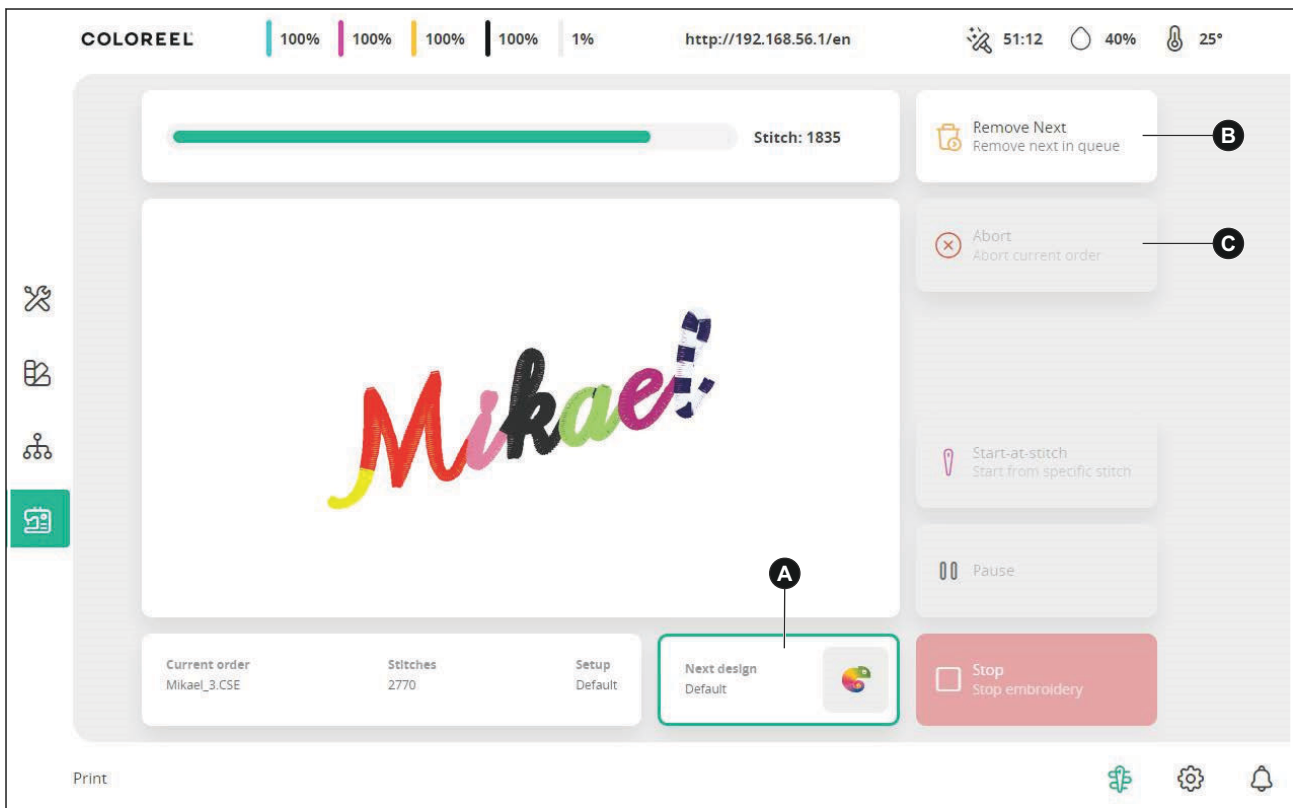
5.6.4 To put an embroidery in queue

The ITCU prints the selected print job again and again until a different embroidery is put in queue. If there is a different embroidery in queue, the ITCU starts the print job in queue while the first print job is completed. This saves the amount of thread that is pulled between each print job.

- Pull the thread on the current print job and then select a different embroidery from the operator panel. Refer to *To start a print job* in chapter 5.6.2.
- (A) shows the embroidery in queue. The green border indicates that the ITCU has started to print the embroidery in queue.



Note: When the current print job is almost completed and the next print job starts, it is not possible to put an embroidery in queue. A warning message shows.



- To remove the next print job in queue, click/tap (B).
- To abort a print job, click/tap (C). A pop-up window shows. Click/Tap to restart the print job of the current embroidery, or to remove the current embroidery and start to print the embroidery in queue.

5.6.5 To manage unintended stops

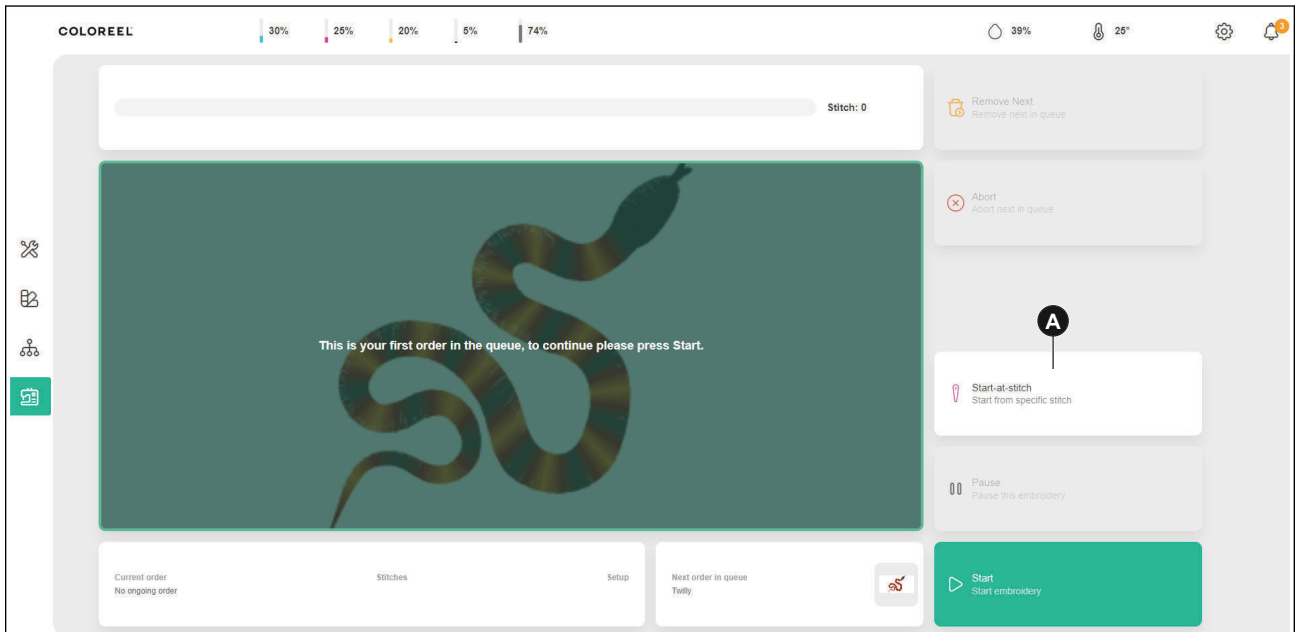
An unintended stop is, for example, a thread break or when the embroidery machine runs out of under thread.

1. Reverse the embroidery machine.
2. Select *Start-at-stitch*, refer to [5.6.6](#).
3. Pull the thread until the end of the start marker is 70 mm / 2.75 in. from the needle.
4. Start the embroidery machine.

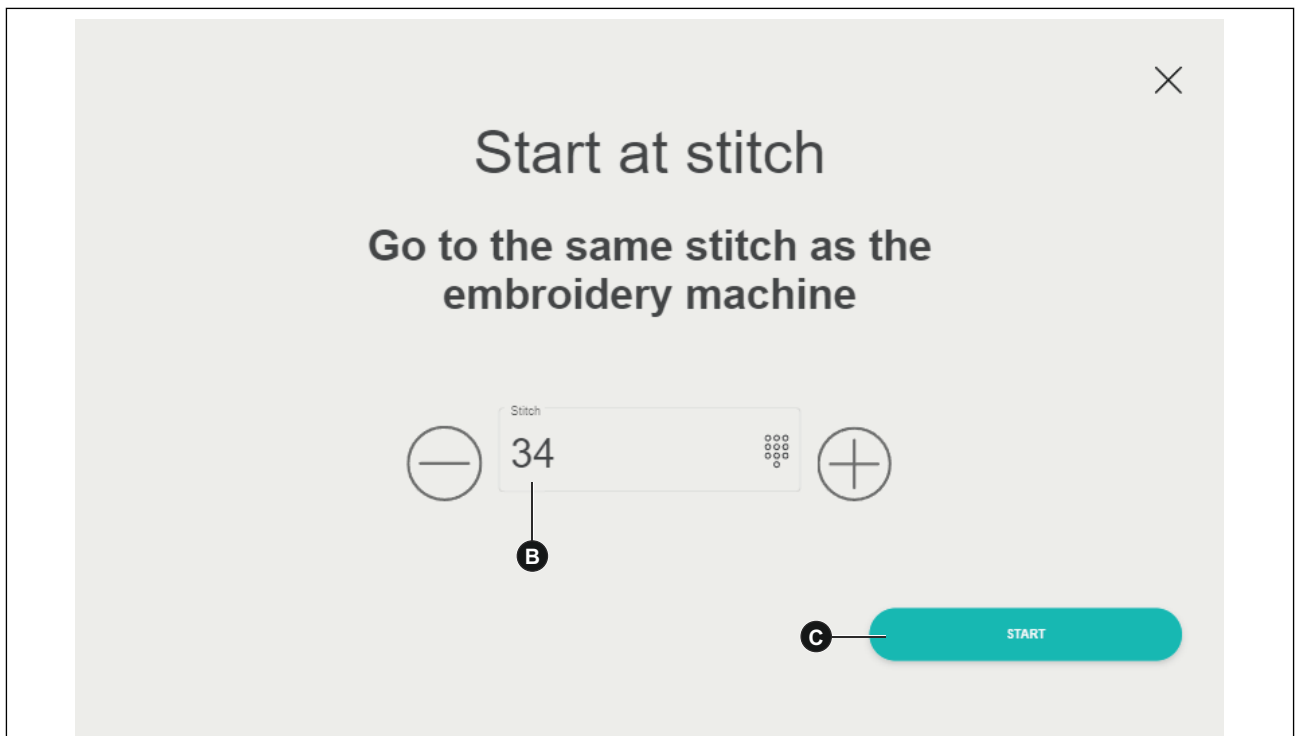
5.6.6 To start the print job at a specific stitch number

After a thread break, is it possible to restart the printing procedure at a specific stitch number.

1. Before you start the print job, click on the *Start at stitch* button (A).



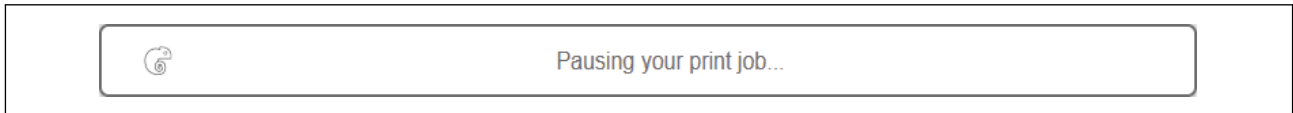
2. Enter the same stitch number in the stitch field (B) as the stitch on the embroidery machine. You can also use the +/- buttons or click on the keypad to enter the number.



3. If you enter the number on the keypad, click on the check mark on the keypad to confirm.
4. Click on the *Start* button (C).

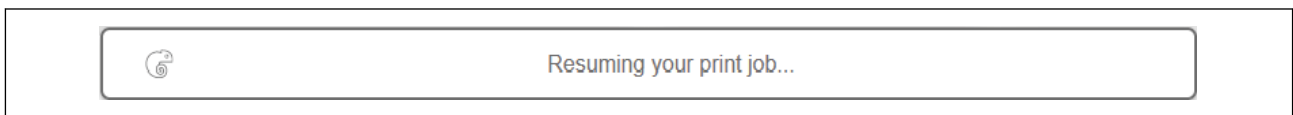
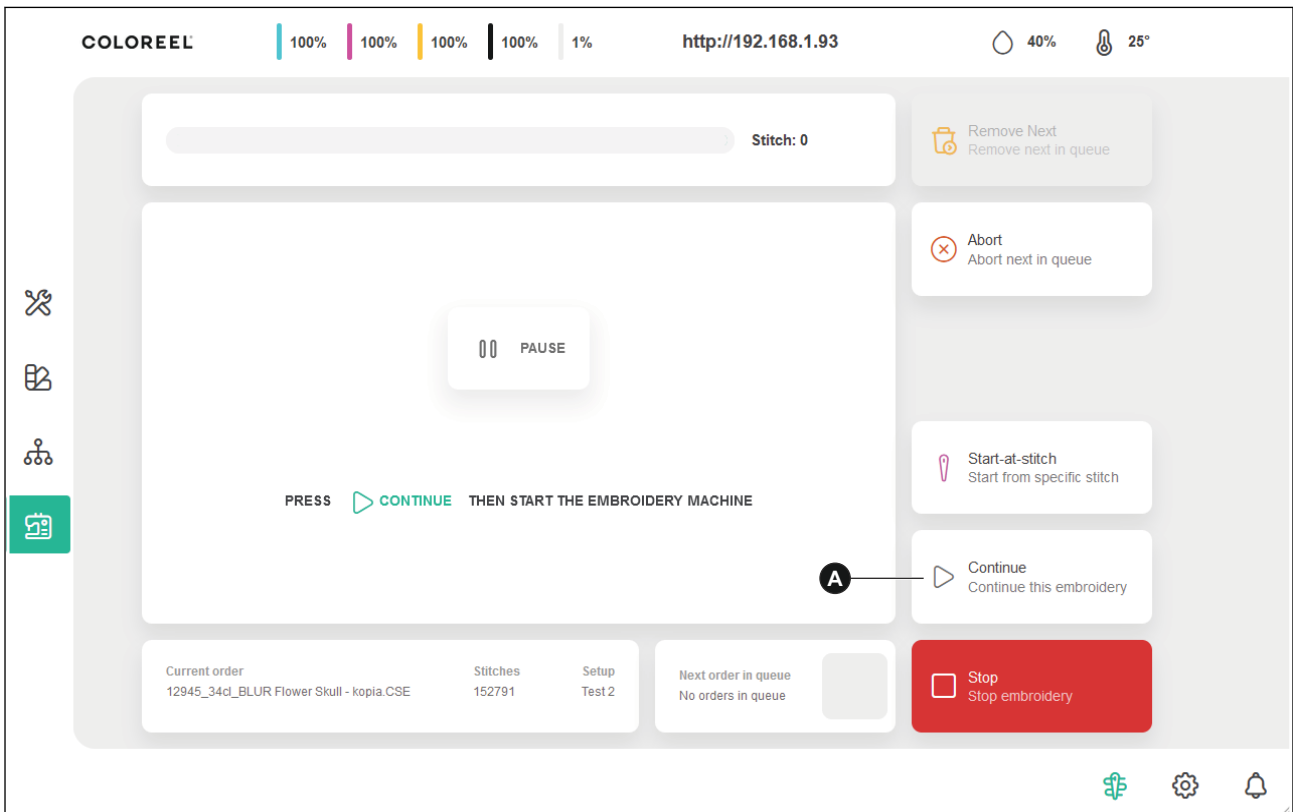
5.6.7 To manually pause and continue a print job

- Click on the *Pause* button to manually pause the print job. The print job is paused.



Note: When the thread is not pulled, the ITCU will pause automatically.

- Click on the *Continue* button (A) to continue the print job. The print job is resumed.



5.6.8 Autopause

The autopause (A) is a timer function that starts when the thread is not pulled, either manually or by the embroidery machine. When the autopause timer reaches 0, the ITCU will pause the print job automatically. The autopause function will also pause the maintenance timer during the time that the print job is paused.



Before the autopause timer has reached 0, the ITCU continue the print job if the thread starts to move. When the autopause timer reaches 0, the operator must not pull the thread, not manually or by the embroidery machine. The ITCU LED light flashes yellow and a pop-up bar shows:

- *Temporary. Don't start the embroidery machine...* - When this pop-up bar goes out of view, the operator can start the embroidery machine.



Note: There is a risk of thread break if the thread is pulled during the time when the pop-up bar shows.

5.6.9 To stop the print job



Note: Always stop the embroidery machine before you stop a print job on the ITCU.

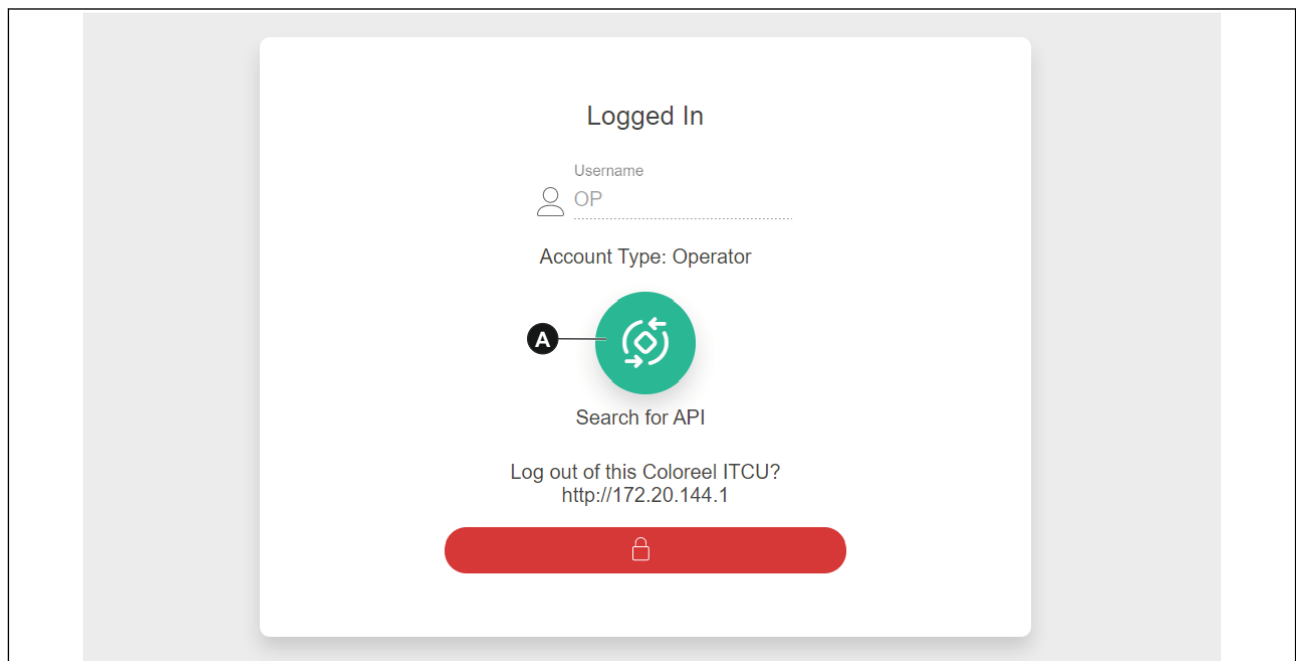
1. Check the stitch number in the ITCU status bar to ensure that the print job is complete.
2. Select the *Stop* button. The ITCU will return to idle status.

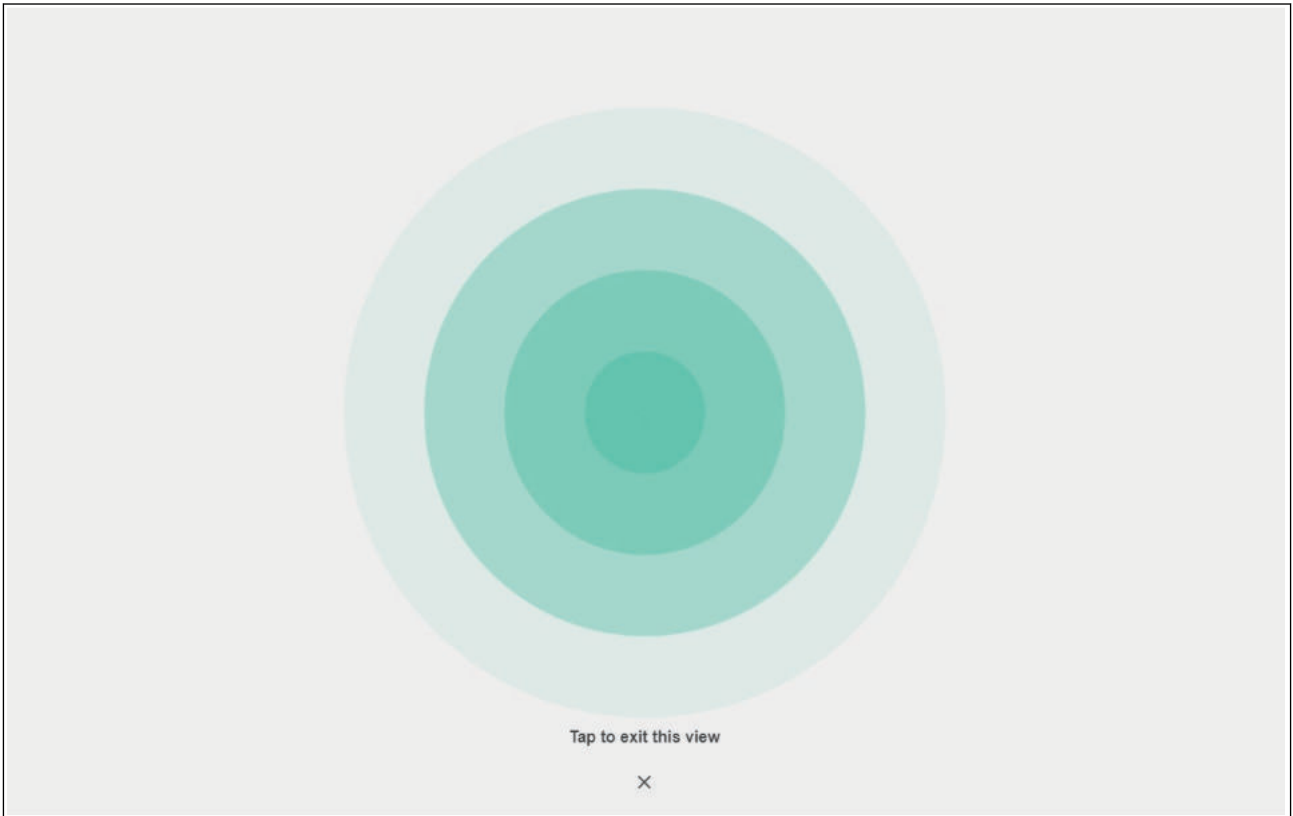
5.7 To use automation print

To use the automation print function, speak to your Coloreel support to get the API (Application Programming Interface) specifications for the this function.

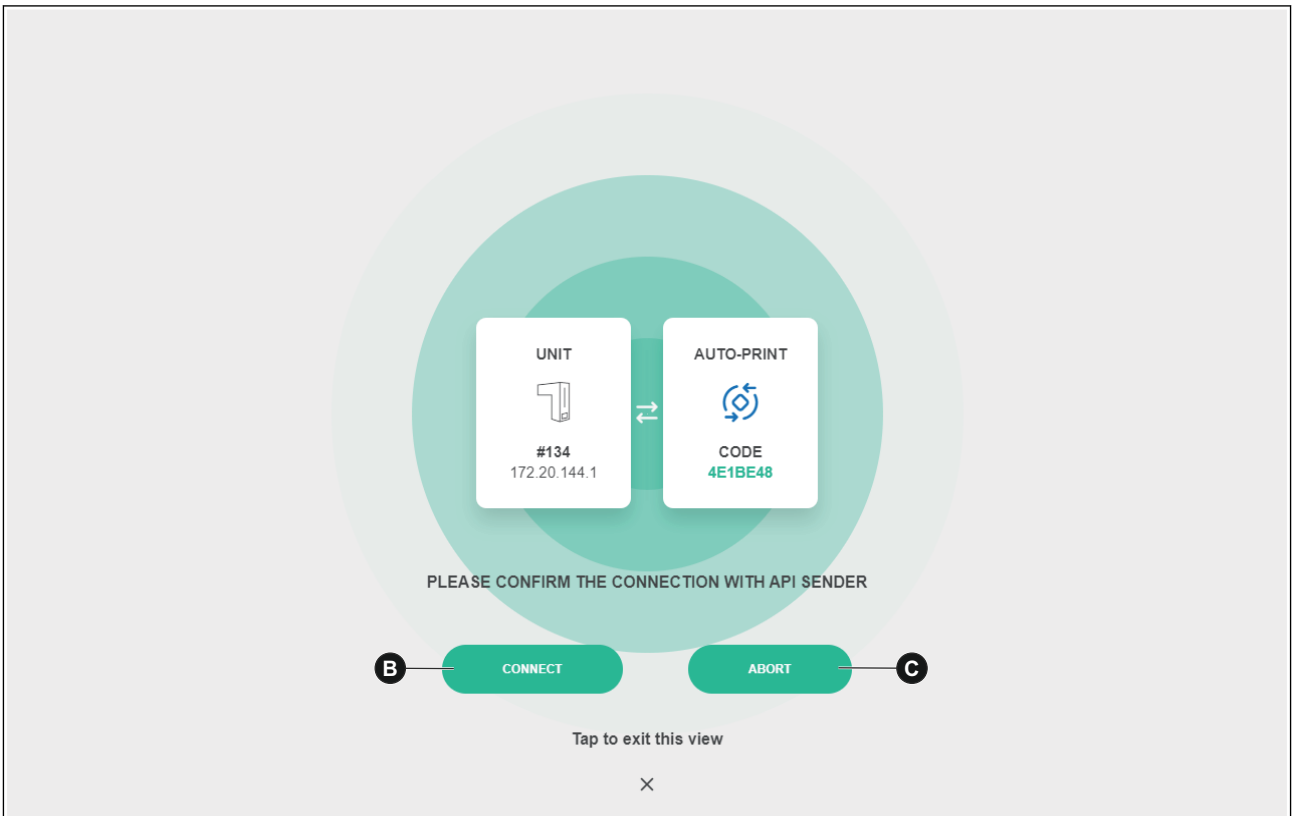
5.7.1 To put the ITCU in discovery mode

1. Select *Settings* in the operator panel of the ITCU, refer to [3.8](#).
2. Select *Account* in the settings list.
3. Tap on the *Search for API* button (B). The ITCU is ready to connect.





4. Tap on the *Connect* button (B) to complete the connection attempt. Tap on the *Abort* button (C) to stop the connection attempt. The connection attempt is active for 2 minutes.

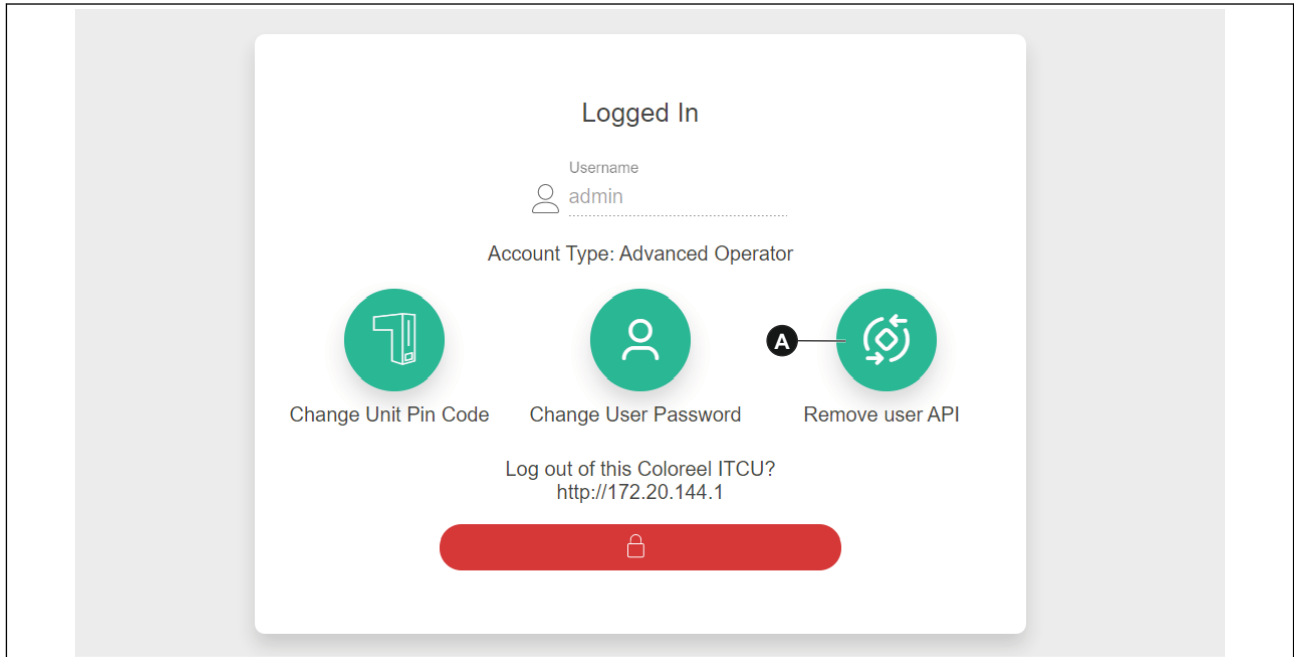




Note: To make sure that the connection attempt is from the right source, compare the code in the connection window with the first characters in the request from the sender.

5.7.2 To remove an API user

1. Log in to the Operator Panel from a web browser. Refer to [4.5](#).
2. Select *Settings* in the operator panel, refer to [3.8](#).



3. Select *Account* in the settings list.
4. Click on the *Remove user API* button (A).

5.8 To manage settings

- Select *Network* to set a static IP address for the ITCU (A). To manually set a DNS server for the ITCU to connect to, uncheck (B).



Note: It is recommended to use the default network settings.

Network

Operator Panel Address <http://192.168.124.222/en>

A Obtain IP address automatically

IP Address

Subnet Mask

Default Gateway

B Obtain DNS server address automatically

Preferred DNS

Alternate DNS

- Select *Status* to see the status of the ink cartridges levels and waste tank level. You can see how much space that has been used on the internal storage of the ITCU, and how much space that remains. You can also see the humidity and temperature gauges of the print engine and temperatures of the fixation unit. The blue and green fields of the gauges indicates that the humidity and temperature is in normal range. Yellow indicates warning and red indicates that there is an error.

COLOREEL | 100% | 100% | 100% | 100% | 1% | 40% | 25°

Type	Expiration Date	Status
Ink	2023-01-01	Valid
Ink	2023-06-02	Valid
Ink	2022-10-21	Expires soon
Ink	2022-10-19	Expired but usable

Used: 219 GB | Space Remaining: 19 GB | Total Storage: 237 GB

Humidity: 40% (Normal range: 30% to 77%)

Temperature: 25°C (Normal range: 15°C to 32°C)

Waste tank: 1% (Status: Introduced)

Status ⚙️ 🔔²

- Select *Color Change Precision* to select an active setup (C).



- Select *Controls* to start or stop the warming up process of the fixation units.

5.9 To manage notifications

There are 2 types of notifications. Notifications with an exclamation mark, !, and notifications without an exclamation mark. We recommend that you resolve all notifications with an exclamation mark before you start a print job.

- Select *Notifications* in the operator panel overview to see a list of all active notifications (A). When there are notifications, a red dot shows on the *Notifications* icon. If you click on the arrow next to the notification a pop-up window with detailed information shows.



5.10 To manage maintenance during print

The maintenance procedure starts automatically every 45 minutes, between print jobs. If a print job is active a maintenance notification will appear after 50 minutes and ask you to do maintenance. If no maintenance is done in 59 minutes, maintenance will be performed even if there is an active print job. The maintenance message is only visible on the ITCU, if you are logged in on a computer, you will see a *Performing maintenance* message.

If you operate a multi-head group, all the ITCUs will perform maintenance at the same time. The first ITCU to require maintenance will start the maintenance on all the ITCUs in the multi-head group.

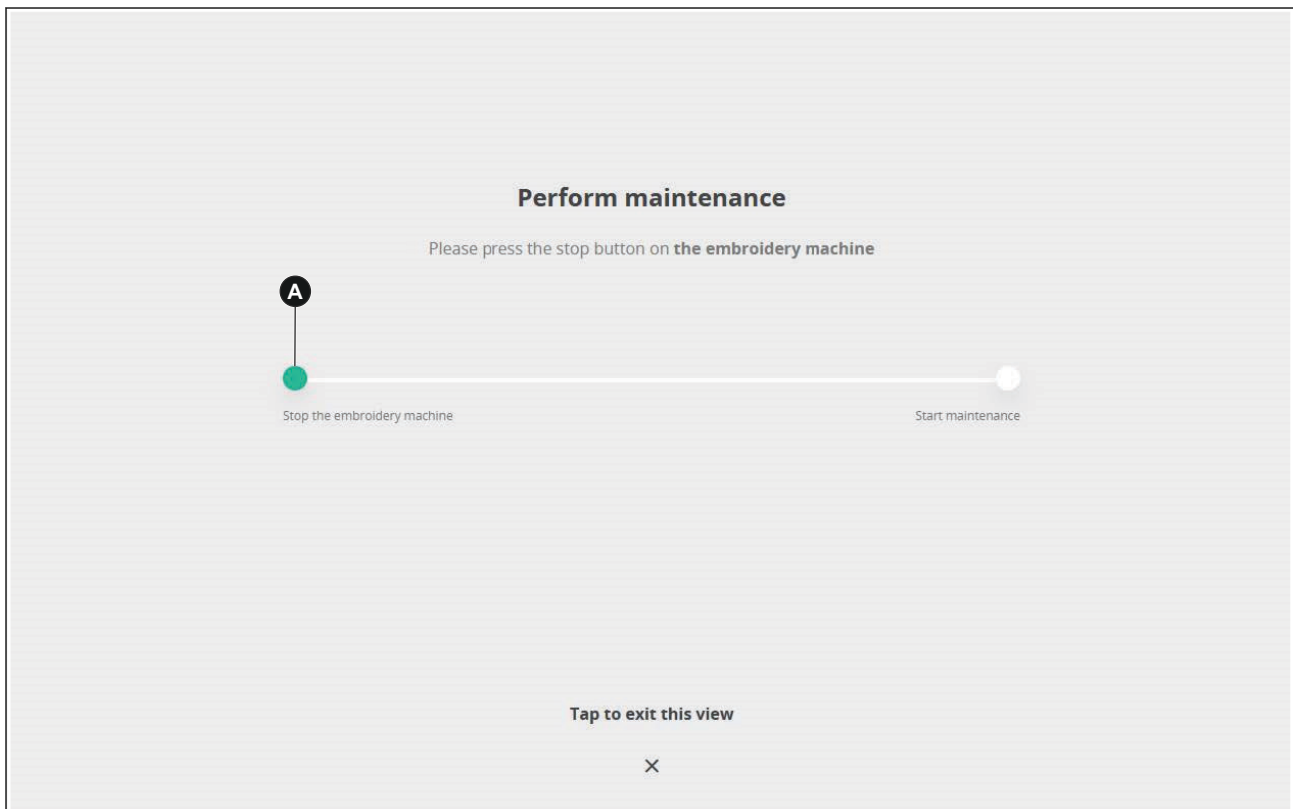
The maintenance timer shows on the top bar in the operator panel. The maintenance timer counts down when the ITCU is in dispensing mode.

57:18 40% 25°

Before the maintenance is performed automatically, the maintenance timer becomes red. Directly before the maintenance starts, the ITCU LED light also flashes green.

11:42 40% 25°

1. Tap on the *Maintenance timer* symbol to start maintenance manually or wait until the ITCU starts maintenance automatically. Follow the instruction on the screen (A), stop the embroidery machine.



2. Tap on the *Start maintenance* button.
3. Wait while the ITCU is running maintenance.
4. When the maintenance is completed:
 - a. If the maintenance was performed between 2 embroideries, pull the thread and then start the embroidery machine. Refer to *To pull the thread* in chapter [5.6.3](#).
 - b. If the maintenance was performed in an active print job, start the embroidery machine.

6 Swatch printing

6.1 To upload a swatch design

1. Select a .CSL file on your computer and upload it to *Local files* in the Service Tool. When the file is uploaded, you can see it in the Swatches tab.



Note: CSL files are color swatch library files that are produced with Coloreel Studio.

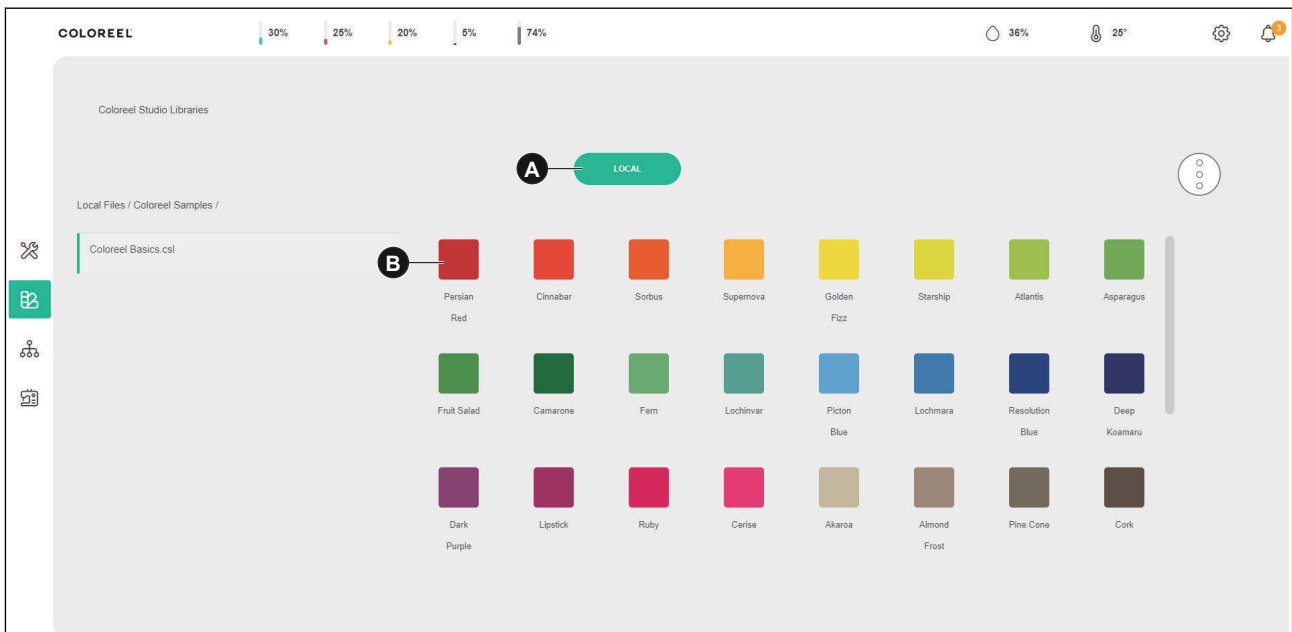
6.2 To start and stop a swatch printing

Use the swatch printing function to print a solid color swatch, a gradient swatch or a multi-point swatch directly on the thread.



Note: The swatch printing function is available for single unit printing only.

1. Select *Swatch printing* in the operator panel. Refer to [3.8](#).
2. Select the *Local* tab (A) or another of the storage tabs.

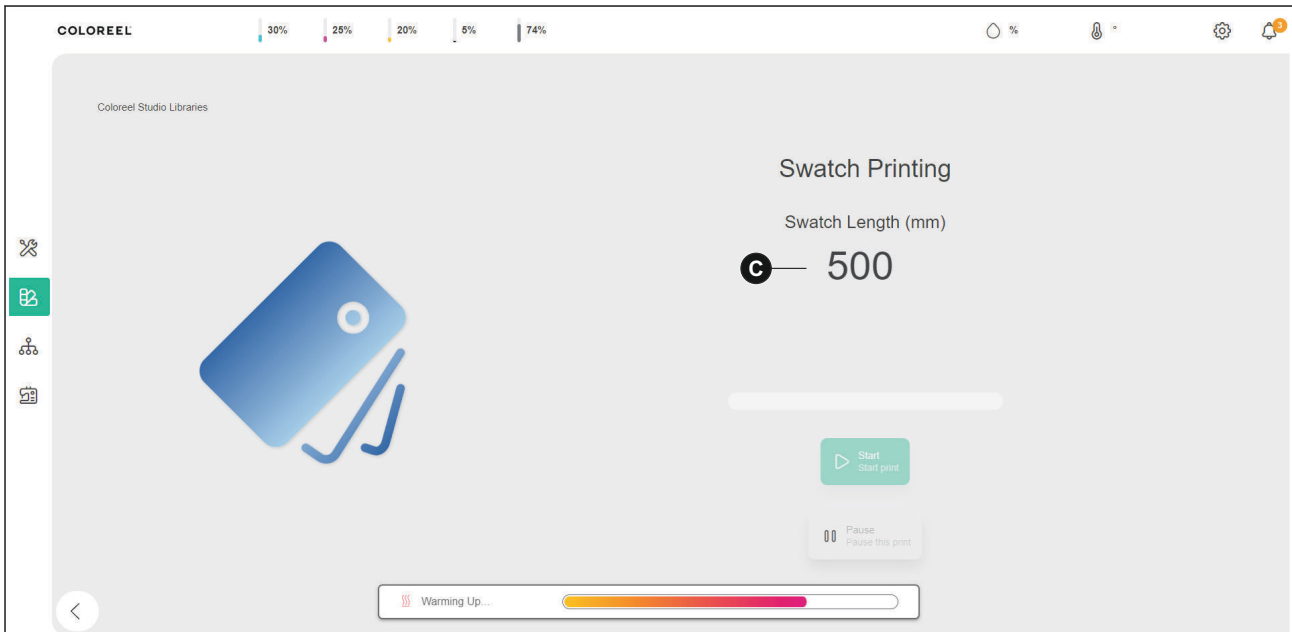


Note: If you want to upload a new design to the ITCU, refer to [6.1](#).

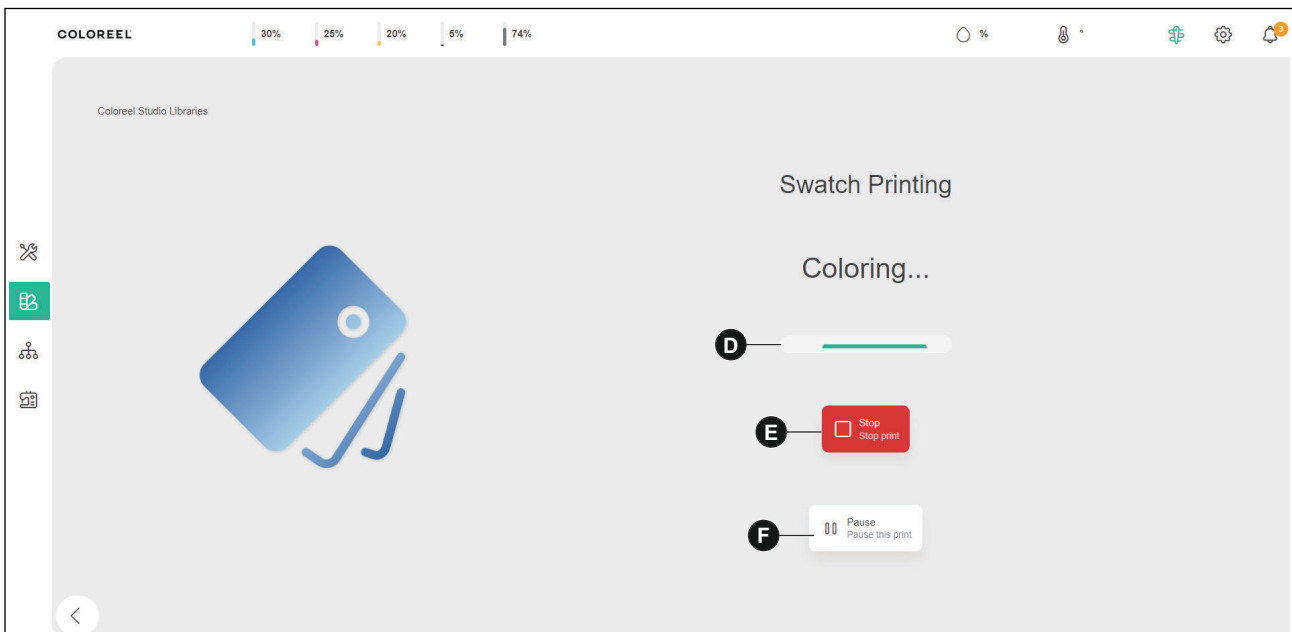
3. Select a design (B). The swatch print screen shows.
4. Click on the *Swatch length* (C) to enter a number, we recommend a very high number.



Note: To enter length is only an option for gradient swatches. If you are printing a solid color you do not have to enter a length.



5. Wait for the ITCU to warm up. When the warming up process is complete, the *Start* button becomes green and clickable. Refer to [9.3](#) to start or stop the warming up process manually.
6. Click on the *Start* button. The coloring starts.

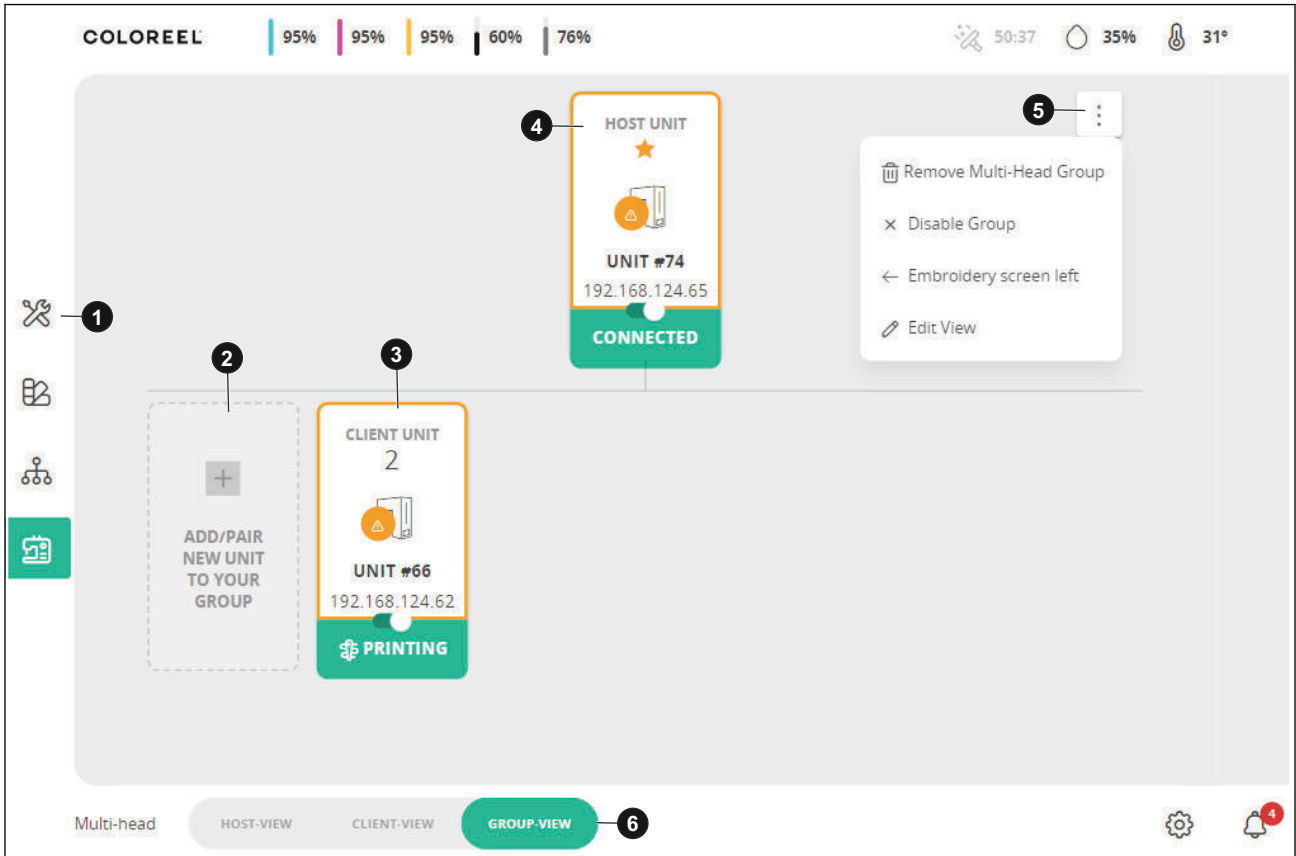


- a. (D) show the coloring progress.
- b. Click on the *Stop* button (E) to stop the swatch printing job.
- c. Click on the *Pause* button (F) to pause the swatch printing job.
7. Start the embroidery machine. Note that there is no startmarker while you use swatches.

7 Multi-head setups

It is possible to operate more than 1 ITCU at the same time. To operate more than 1 ITCU you have to set 1 ITCU as a *Host* and the other ITCUs as *Clients*. The ITCU, that is set to host unit will share the embroideries to the connected clients. Start the print job on the clients when they are connected and ready to print.

7.1 Multi-head setup overview

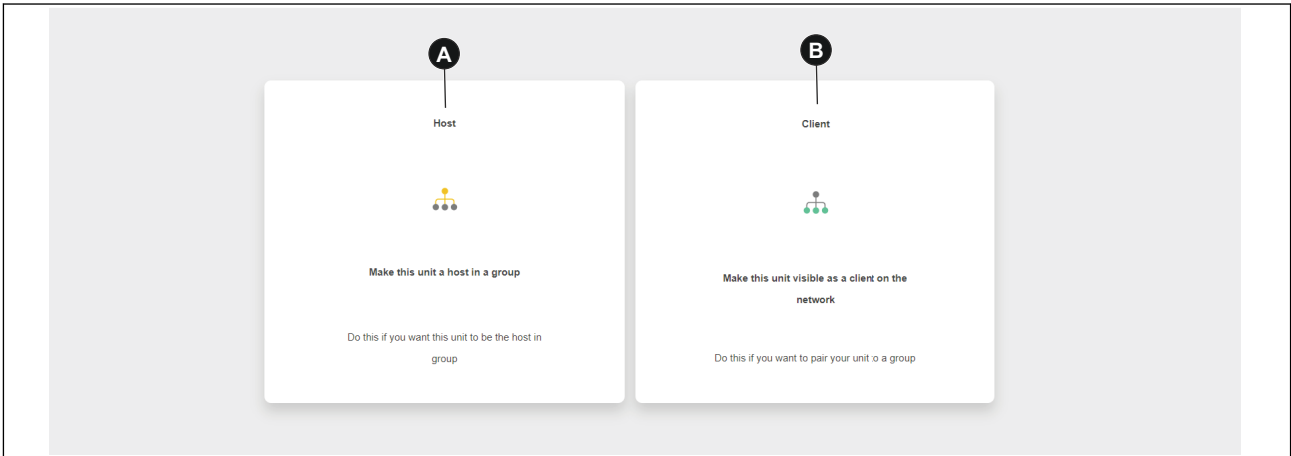


1. Multi-head setup.
2. Add/Pair a new client.
3. The added clients.
4. The ITCU, that is set to host.
5. Edit the selected ITCU.
6. Select to view the host, the client or the multi-head group.

7.1.1 To set up a multi-head group

If there are no host or clients added to the multi-head group, you must start by selecting if this ITCU will be the host or client.

- Select *Host* (A) to make the ITCU to a host.



- Select *Client* (B) to make the ITCU to a client.

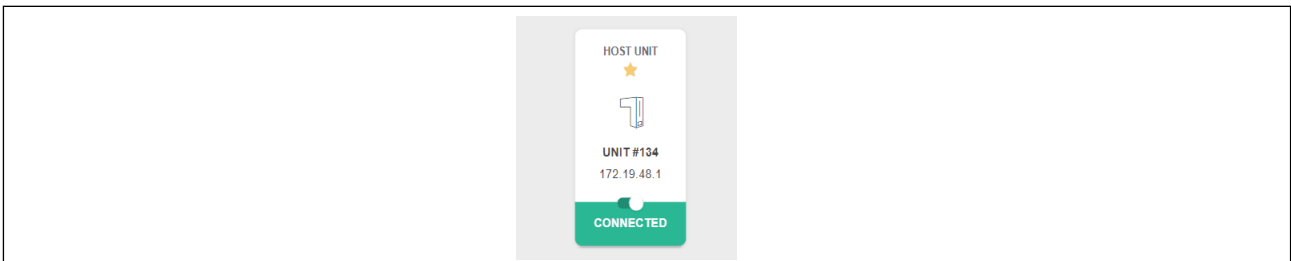


Note: To set a name to a ITCU, refer to [9.9.1](#).

7.1.1.1 To add a host

A ITCU host sends data and instructions to all ITCU clients.

1. Select *Host*. Refer to [7.1.1](#).
2. Make sure that the ITCU now has the status *Host unit*.



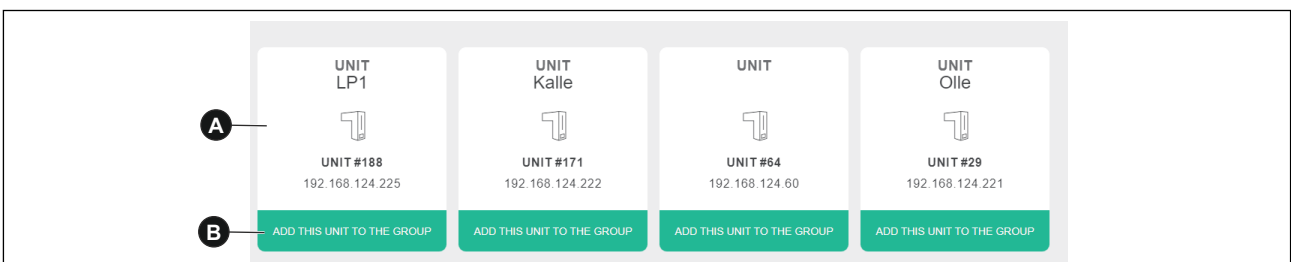
7.1.1.2 To add a client from the host unit



Note: All ITCUs in the multi-head group needs to have the same software version to be operatable.

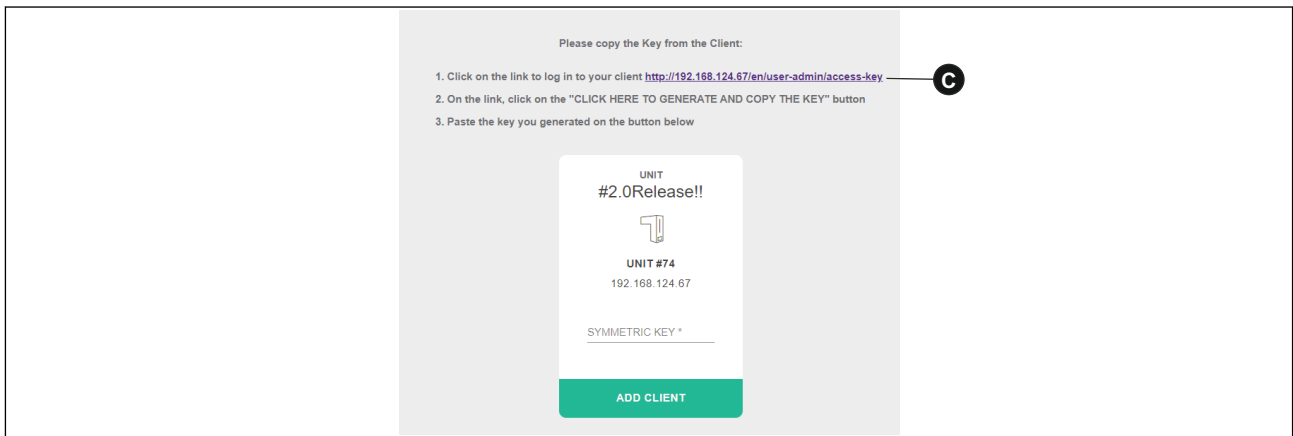
A ITCU client gets data and instructions from the ITCU host.

1. Make sure that you have set a ITCU as the host. Refer to [7.1.1.1](#).
2. Select *Add/Pair a new client unit*. The ITCUs that are available on the network shows (A).

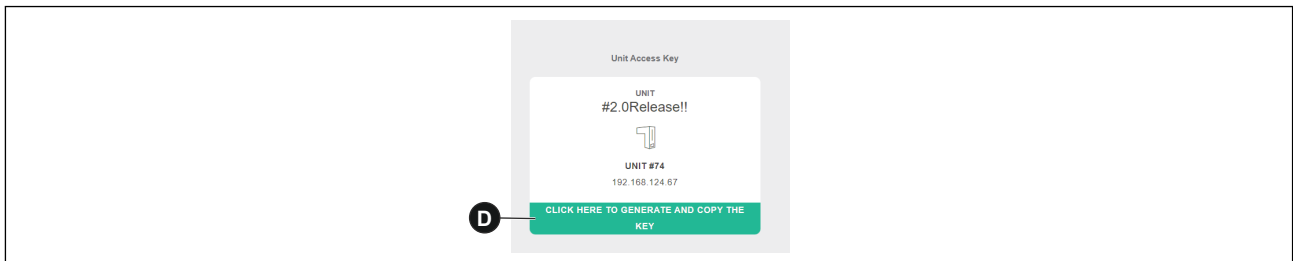


3. Select *Add this unit to the group* (B), to add one of the ITCUs.

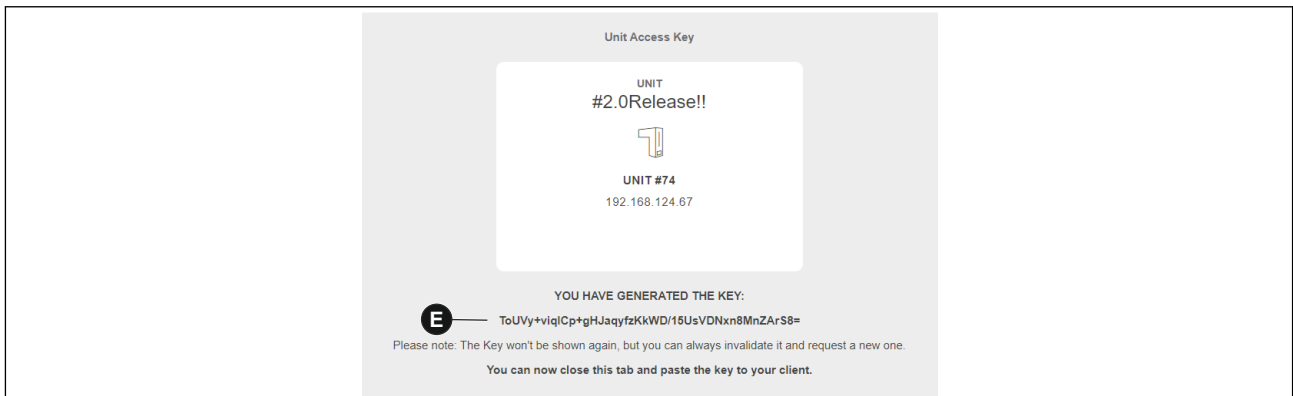
4. If you are not already logged in to the ITCU client on a web browser, click on the *link* (C) to log in.



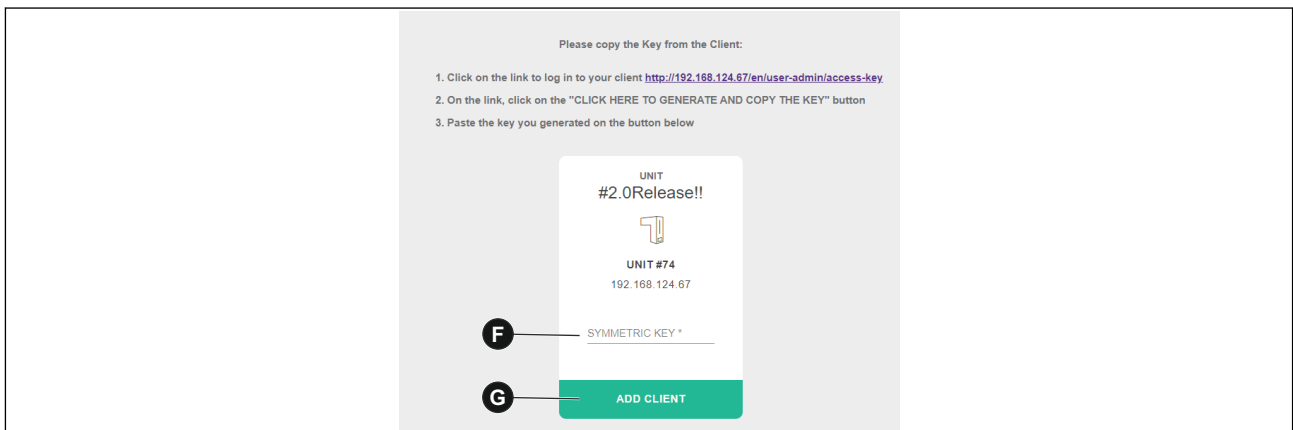
5. Select *Click here to generate and copy the key* (D).



6. The key (E) is generated and copied to the clipboard. You can also copy the key manually.



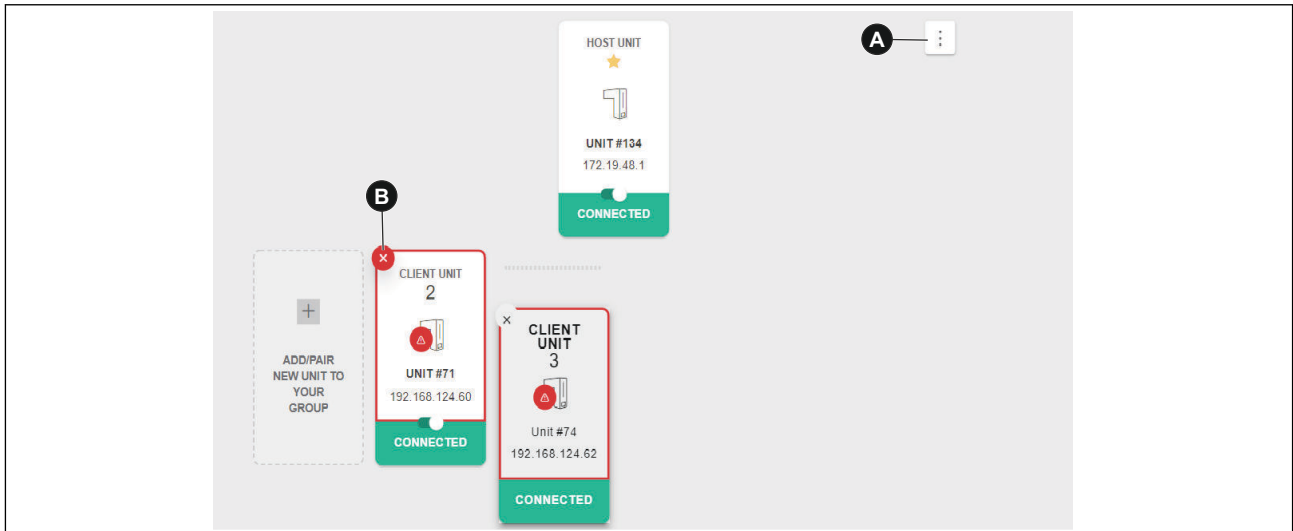
7. Paste the copied key into the *key field* (F).



8. Select *Add client*. The ITCU client is added to the multi-head group.

7.1.2 To manage the ITCUs in the multi-head group

1. Click on the *Storage menu* button (A).

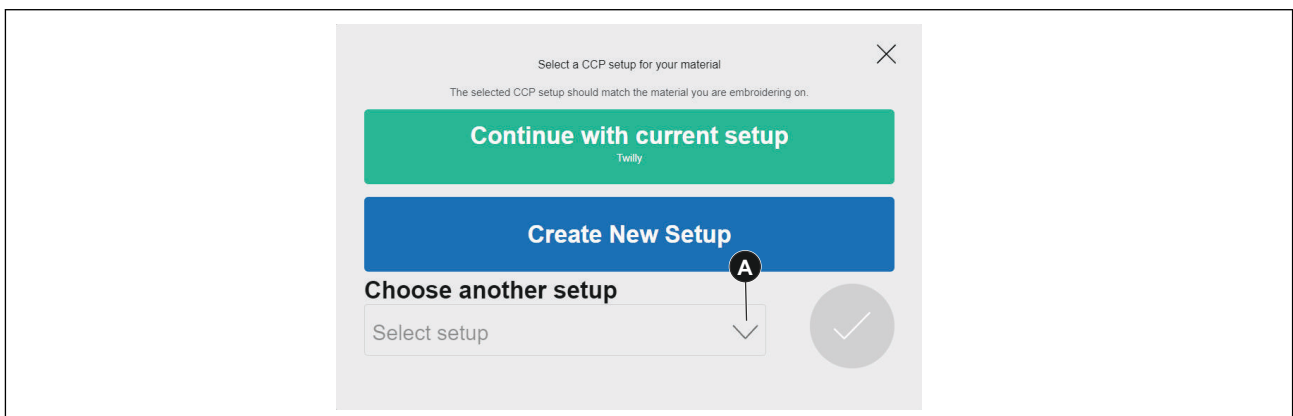


- a. Select *Remove multi-head group* to remove a group. The multi-head group is removed permanently.
- b. Select *Disable group* to disable a group. The multi-head group is temporarily disabled until you select *Enable group*. You can also disable a single client if you click on the button on the client card.
- c. Select *Embroideries screen right/left* to shift the order of the clients.
- d. Select *Edit view* to change order of the clients or remove a client. You can drag and drop to change the order of the ITCUs. To remove a ITCU, select x (B).

7.1.3 To use the active setup in a multi-head group

The active setup that you select on the host will be transferred to all the clients. When that setup is used, the model will be trained on all ITCUs.

1. Select the active setup (A) that you want to use on the multi-head host.



7.1.4 To view the status of hosts and clients

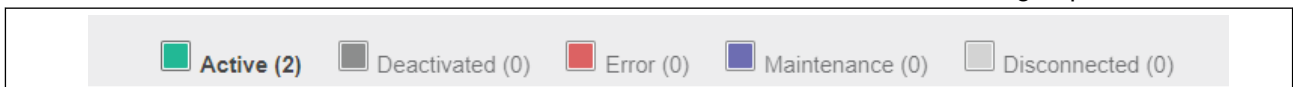
During operation, it is possible to view a short status report for both host and clients in the multi-head group. Refer to [7.1.4.1](#) for more information on the status colors.



- The status of a host or a client shows on each host or client card (A).
- The frame of a host or a client card has the color of the status (B).
- The progress of a host or a client shows on the lower bar (C) on each host or client.
- Click on a host or a client to see more information.

7.1.4.1 The ITCU status in a multi-head group

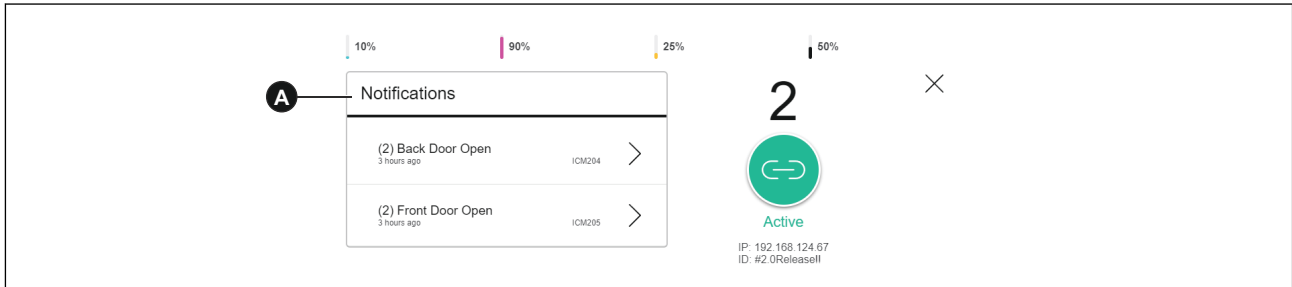
There are 5 different status levels that can occur on the ITCU in a multi-head group.



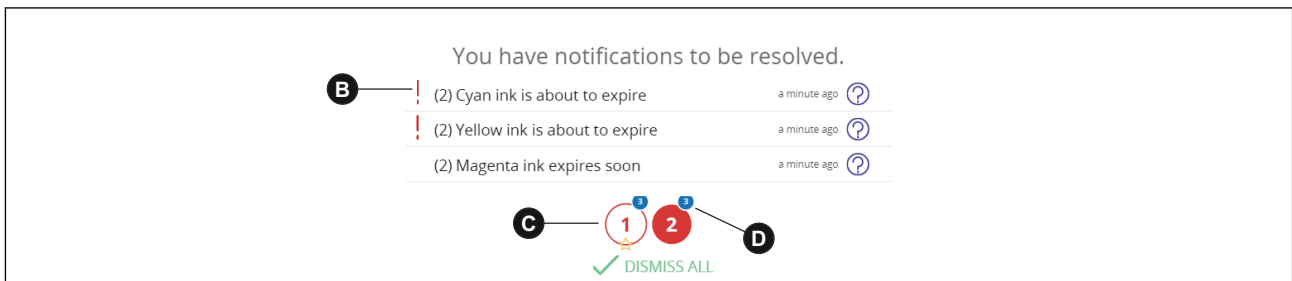
Status	Description
Active/Dispensing (Green)	An ITCU that is active, ready to print and free from error notifications.
Deactivated (Dark Grey)	An ITCU that has manually been deactivated from the multi-head group.
Maintenance (Blue)	An ITCU that performs maintenance tasks or is put into service mode.
Error (Red)	An ITCU that has error notifications that needs attention.
Disconnected (Light Grey)	An ITCU that is included in the multi-head group but does not have a connection to the local network or is turned off.

7.1.4.2 To see detailed information, notifications and errors on the host and the clients

- Click on a host or a client that you want to see detailed information for. A list of active notification shows (A).



- If you try to start a print job with unresolved notifications, a pop-up window with the notifications show. We recommend that you resolve all notifications with an exclamation mark, !, before you start a print job.



- A list of notifications (B) for the selected ITCU.
- Click/tap on the number of the ITCU (C), to see the notifications of the selected ITCU.
- The number of notifications for each ITCU shows adjacent to the ITCU number (D).

For more information on notifications, refer to the *Troubleshooting* chapter .

7.2 To operate a multi-head group

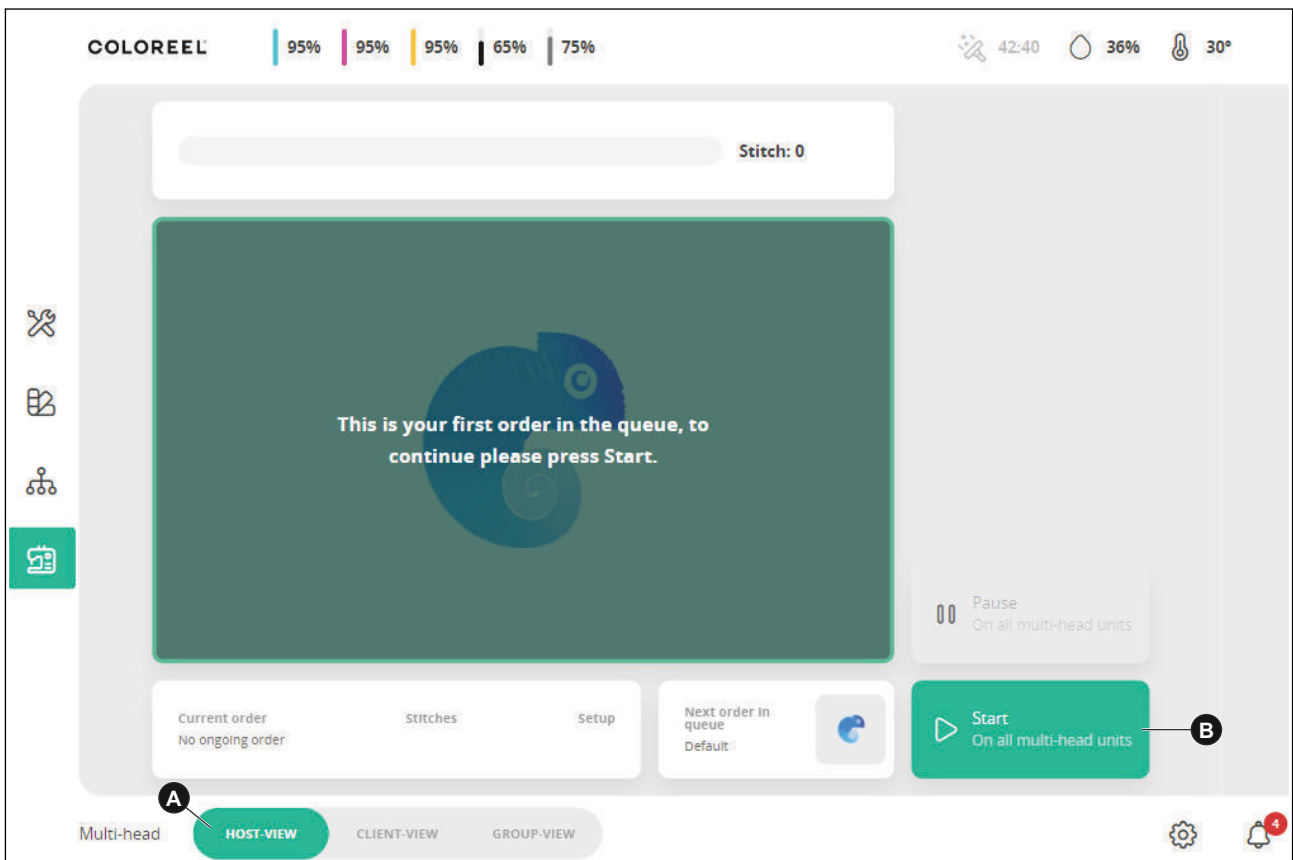


Note: Use only Firefox or Chrome browsers to operate the ITCU from a web browser.

7.2.1 To start a multi-head print job

- Log in to the operator panel on one of the ITCUs in the multi-head group.
- Select *Embroideries* in the operator panel. Refer to [3.8](#).
- Follow the instruction [5.6.2 To start a print job](#) to upload and select a print design.
- Click/tap on the *Host view* button (A) to manage the multi-head group

5. Review the *Pattern* and the other ITCUs in the multi-head group. The print job is ready to start when all the clients has reached status *Dispensing*.



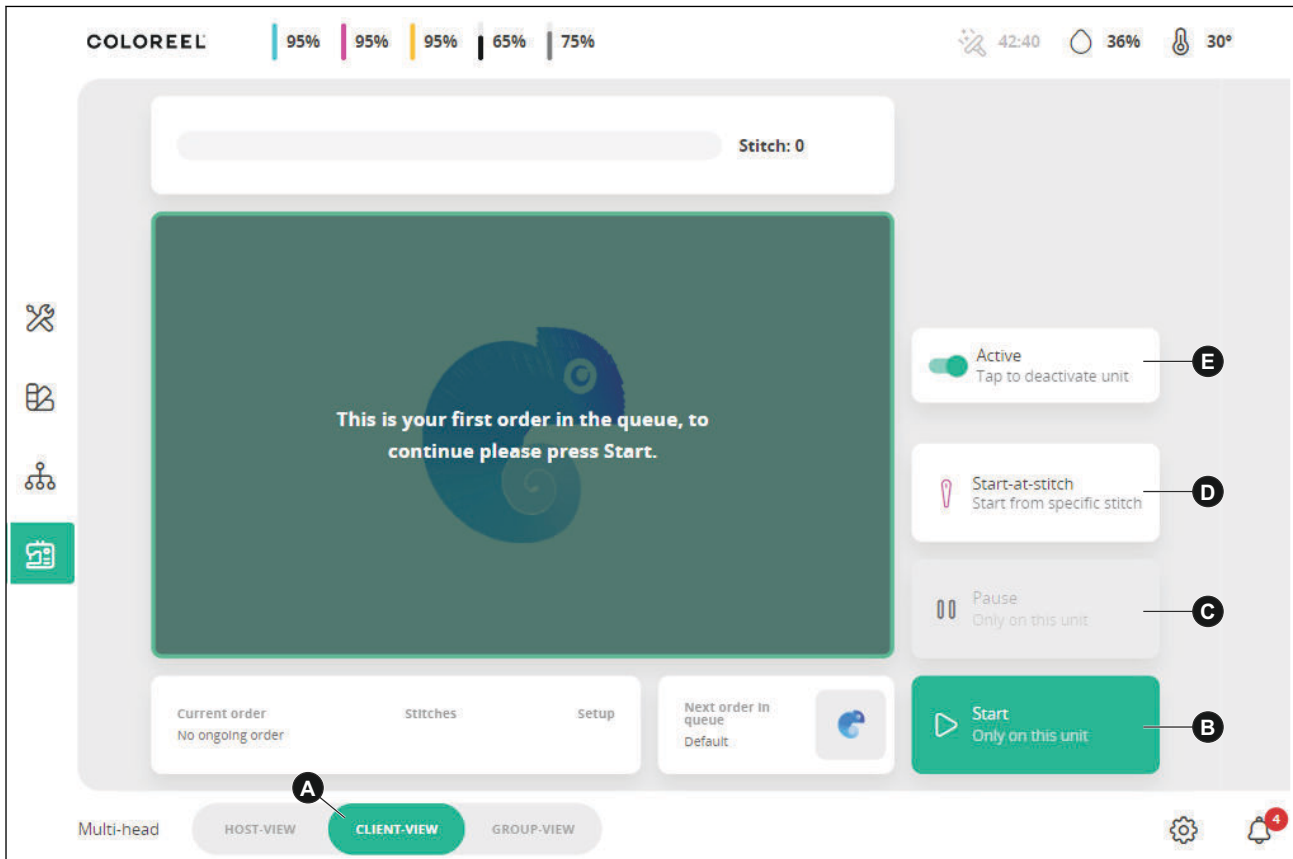
6. Click on the *Start* button (B).
7. Pull the thread to the start marker on the host and all the clients. Refer to [5.6.3](#) for how to pull the thread.

7.2.2 To manually pause and continue a multi-head print job

1. Select *Embroideries* in the operator panel. Refer to [7.2.4](#).
2. Click/tap on the *Host view* button to manage the multi-head group
3. Click/tap on the *Pause* button to pause the multi-head group.
4. Click/tap on the *Continue* button to continue the print job on the multi-head group.

7.2.3 To manage a client in a multi-head group

- Click/tap on the *Client* button (A) to manage the client separately.



- a. Click/tap on the *Start* button (B) to start the client.
- b. Click/tap on the *Pause* button (C) to pause the client.
- c. Click/tap on the *Start-at-stitch* button (D) to start at a specific stitch, refer to [5.6.6](#).
- d. Click/tap on the *Active* button (E) to activate or deactivate this client.

7.2.4 Autopause in a multi-head group

In a multi-head group, all the connected ITCUs use the same autopause timer. All the connected ITCUs in a multi-head group goes to pause or continue the print job at the same time.

7.2.5 To stop the multi-head group

1. Select the *Stop* button to stop the coloring on all the connected ITCUs.



Note: You can only stop the print job when the first client has reached status dispensing.

8 Maintenance

8.1 Introduction



Warning: Before performing any maintenance of this Product, carefully read, fully understand and follow each of the below Safety Instructions; failing to do so could result in Death or Serious Injury to you or a bystander.

- Turn off the ITCU (Refer to *Chapter 4.6*) and unplug the ITCU from its electrical outlet.
- Make sure all potential energy sources for the ITCU are isolated in compliance with your company's potential energy isolation or lock-out/tag-out policy and procedure.
- Allow the ITCU to cool down for at least 5 minutes.
- Keep hair and loose clothing clear of and away from all parts and surfaces behind the ITCU's doors.
- Do not attempt any maintenance task with the ITCU if you are unsure of how to properly and safely perform that task; contact Coloreel Support at with any question about maintenance of the ITCU.

8.2 Maintenance schedule

For more information on how to do maintenance on the ITCU, refer to: <https://support.coloreel.com/hc>.

Go to <http://academy.coloreel.com> for lesson based learning about the ITCU.

Maintenance	Action
Daily - before start	Make sure that the ITCU is <i>On</i> and not in standby mode.
	Make sure that the ITCU is correctly threaded. Refer to chapter <i>4.1</i> for how to correctly thread the ITCU.
	Make sure the temperature and humidity level in the area where the ITCU will be operated, remain within the levels specified in chapter <i>11.1</i> .
	Make sure the waste tank is not full. Refer to chapter <i>8.3.3</i> for how to properly replace the waste tank.
	Make sure ink levels do not require ink cartridge replacement. Refer to <i>8.3.2</i> for how to properly replace ink cartridges.
	Make sure the ITCU has an IP address. If the ITCU has an IP address, the IP address shows on the top bar of the operator panel. Refer to <i>Section 4 of the Installation Manual</i> for how to assign the ITCU an IP address.
	Make sure that the lubrication level are at sufficient operating level. The lubrication fluid level must be within the minimum and maximum levels marked on the lubrication container.
Weekly	Examine the washing fluid and make sure that it is not discolored or dirty.
	Examine the washing fluid level. Add washing fluid if the washing fluid level is low. Add washing fluid more frequently if it is necessary because of the number of operating hours.
	Examine the level and quality of the lubrication fluid and make sure that it is not discolored or dirty. If the lubrication fluid is discolored or dirty, remove the lubrication fluid and clean the lubrication module fully. Refill the lubrication module with new lubrication fluid. If the level of lubrication is low, add lubrication fluid to the container of the lubrication module.

Maintenance	Action
	Clean all thread guides and thread contact points in the ITCU and the embroidery machine from excess ink and lubrication.
	Clean the contact fixation unit with Scotch brite and washing fluid or similar.
Every second Week	Start the ITCU and make sure that the product runs the self maintenance sequence.
Monthly or after 160 hours of operation	Replace the air filter for the fixation fan.
Every 3 month or after 500 hours of operation	Replace the carbon filter and the particle filter for the washing module. Drain the washing module with the syringe. Refill the washing module with new washing fluid.
Yearly or after 1500 hours of operation	Speak to an approved service technician.

Product part	Full, weight	Empty, weight
Ink Cartridge	360 g / 12.7 oz	130 g / 4.6 oz
Waste Tank	350 g / 12.4 oz	160 g / 5.6 oz

8.3 Ink Cartridges

8.3.1 Introduction



Warning: If cartridge fluid makes contact with exposed skin, wash with soap and water. If cartridge fluid contacts eyes, immediately flush with water and seek medical advice.

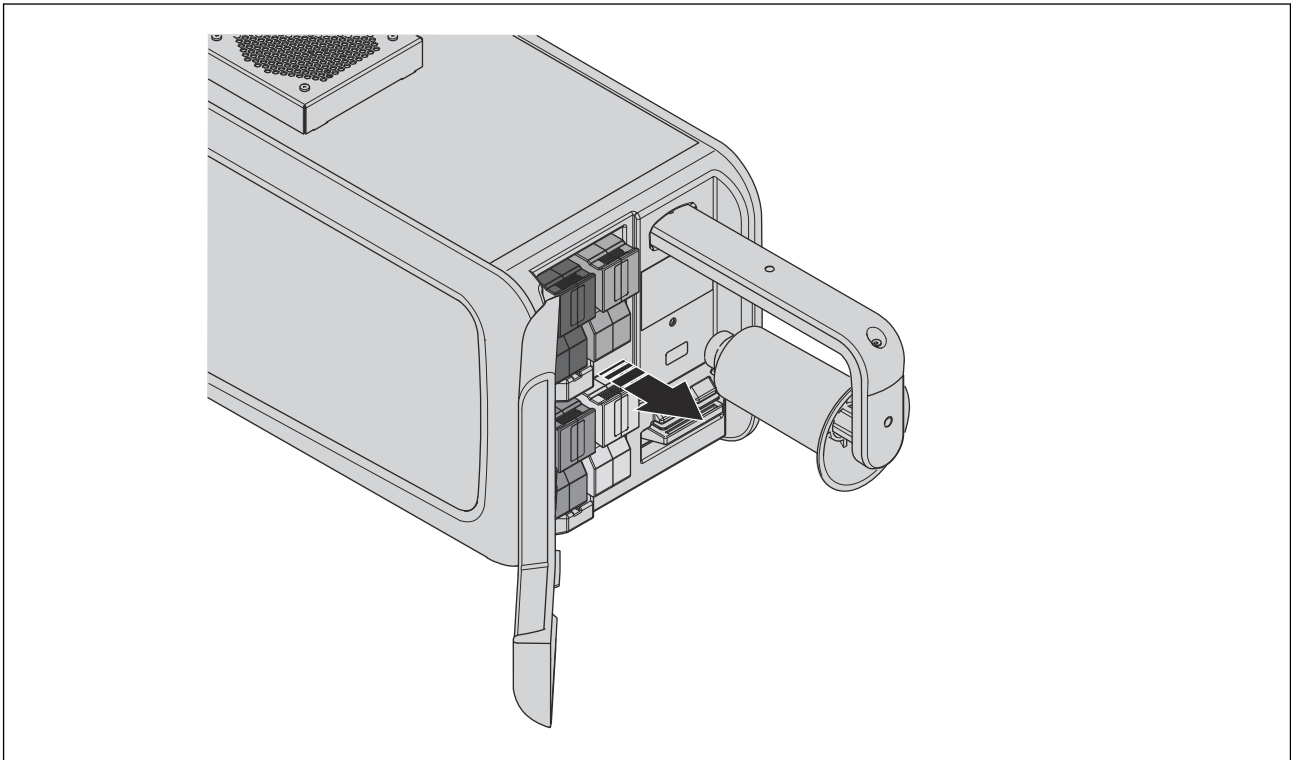
8.3.2 To replace an ink cartridge



Note: Ink cartridges should be replaced when the touchscreen indicates a low ink level.

1. Make sure that the ITCU is powered on.
2. Make sure that no print job is active and that the ITCU is not under maintenance.
3. Open the ink cartridge door.

4. Remove the empty ink cartridge.



5. Fit the new ink cartridge into the ink cartridge holder.



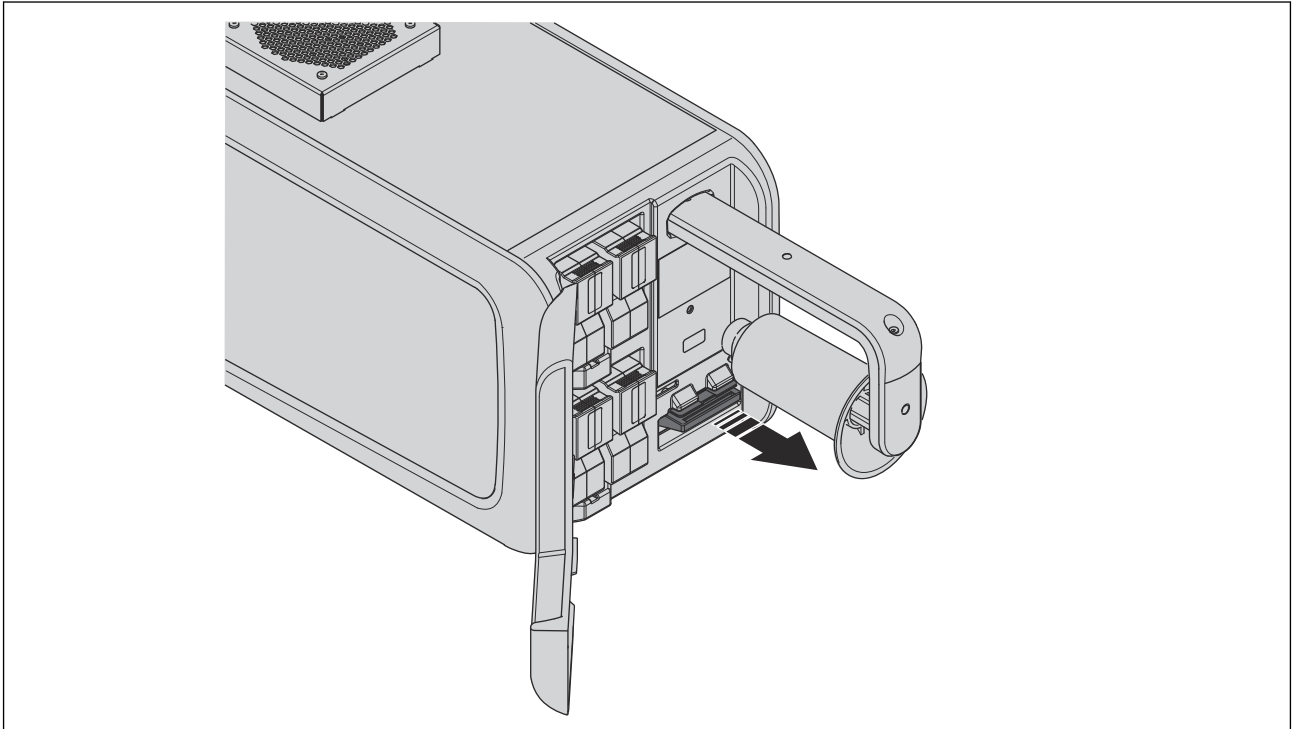
Note: The guides on the ink cartridge only fit in the correct ink cartridge holder.

6. Put the new ink cartridge into the ink cartridge holder and push it until you hear a click.
7. Close the ink cartridge door.
8. Handle waste according to local regulations.

8.3.3 To replace the waste tank

1. Make sure that the unit is powered on.
2. Stop the print job if there is an active print job. Make sure that the ITCU is not under maintenance.
3. Push the standby button. Wait for the ITCU to complete the capping of the print engine, and if there is a maintenance sequence.
4. Switch off the ITCU with the power switch on top of the product.
5. Open the ink cartridge door.

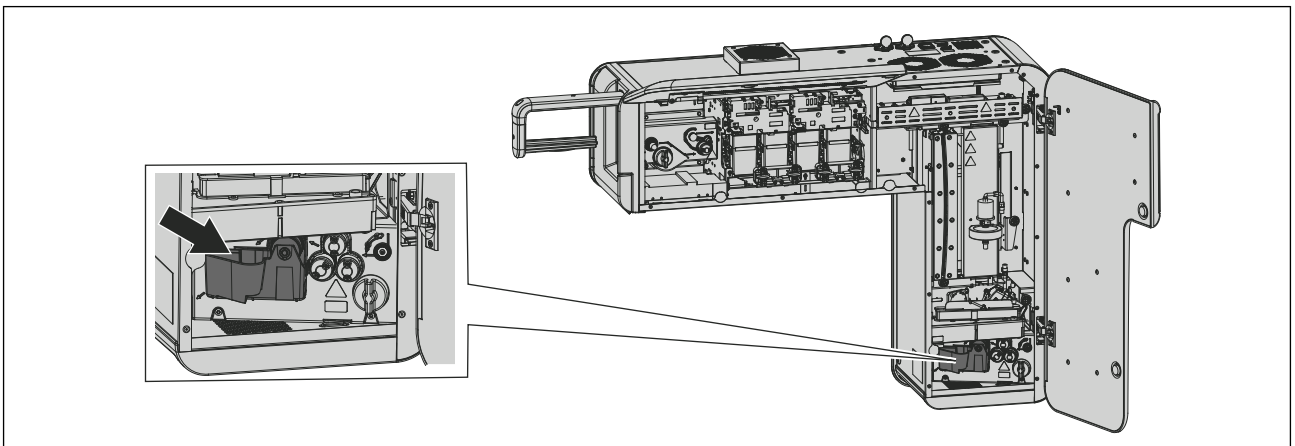
6. Push the lock on the waste tank and remove it. Replace the waste tank with a new one.



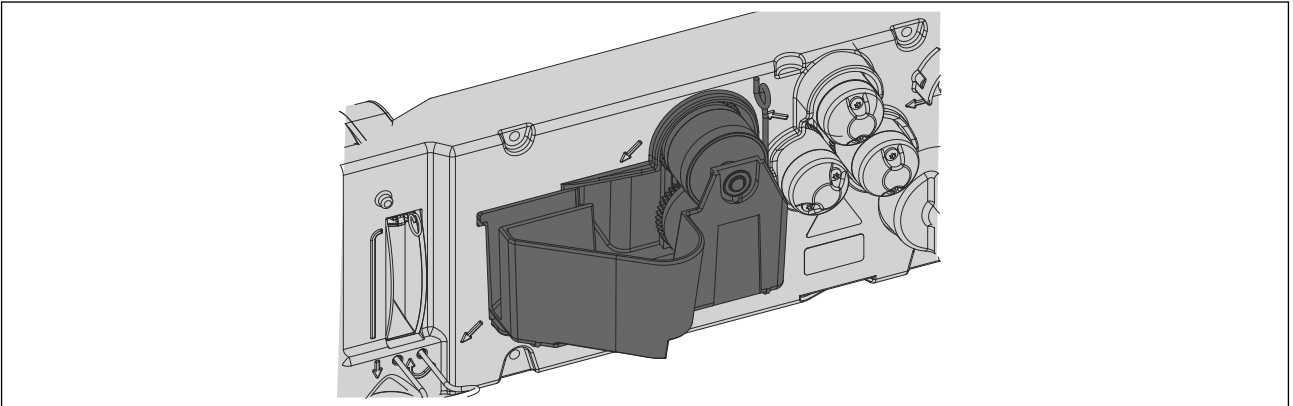
7. Close the ink cartridge door.
8. Handle waste according to local regulations.

8.4 To add lubricant

1. Locate the lubrication module.



2. Add lubricant and make sure that it does not exceed the *Max* level indication.

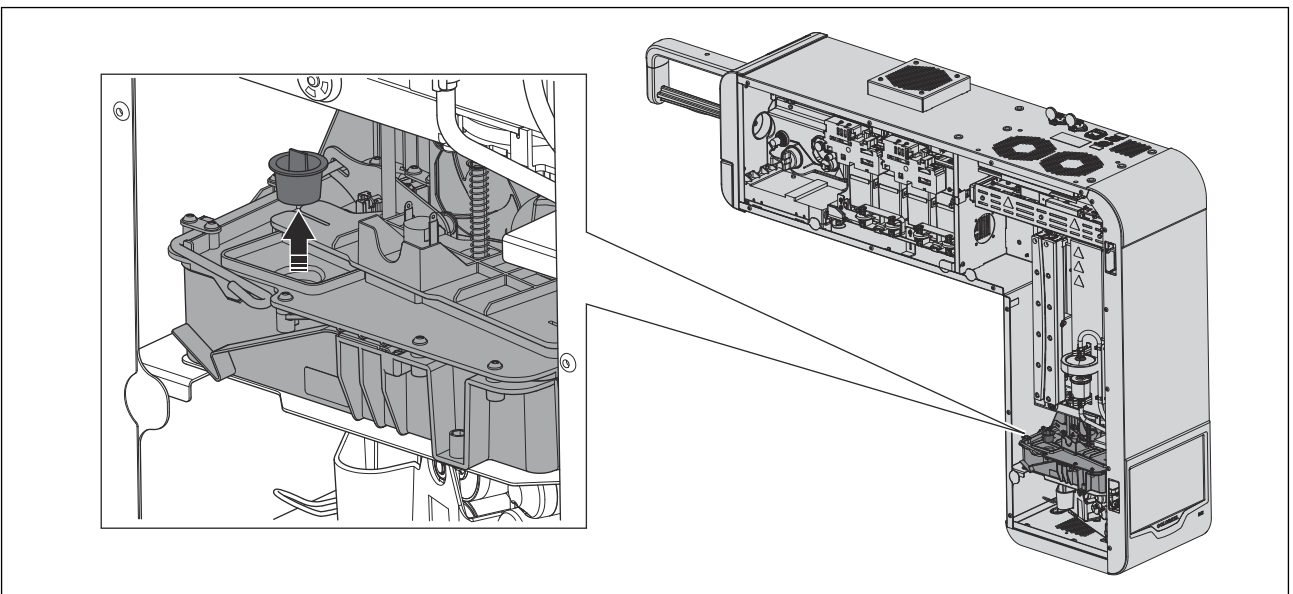


8.5 To change the washing fluid, version BOM032

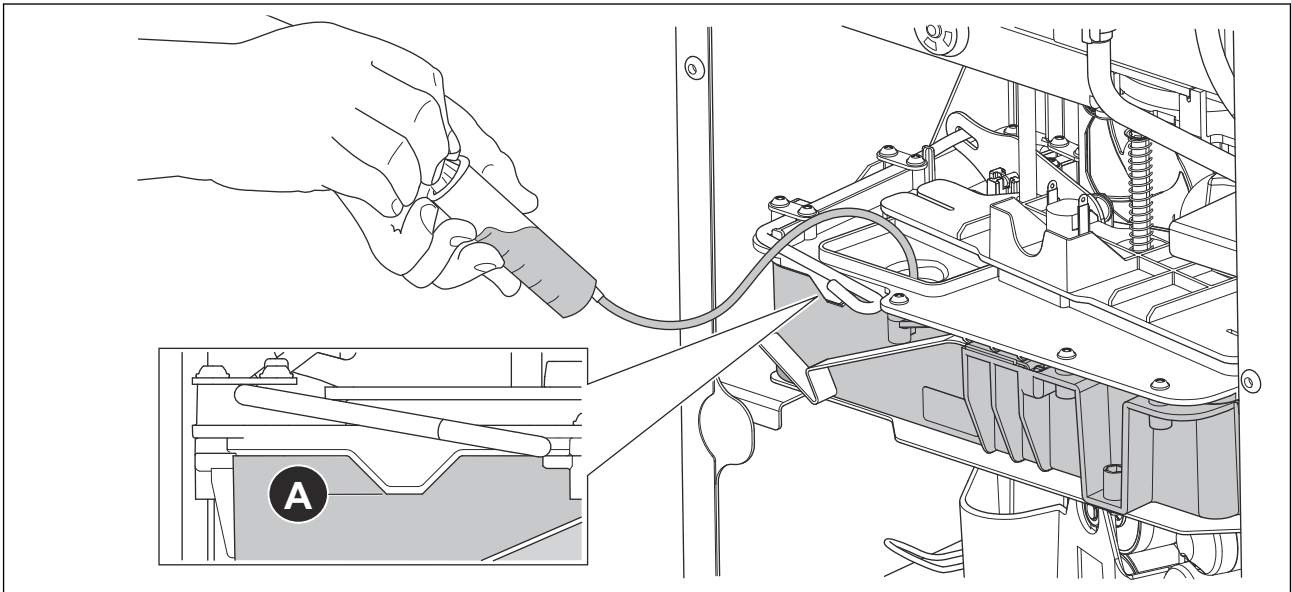
It is necessary to change the washing fluid if it is discolored or dirty. To change the washing fluid is also a part of the regular maintenance. Refer to the maintenance schedule in chapter [8.2](#).

If the washing fluid level is low, a notification about low washing fluid shows. It is not necessary to change the washing fluid if the washing fluid level is low, but not discolored or dirty. Follow the instructions below to fill the washing fluid container.

1. Remove the rubber plug on top of the washing module.



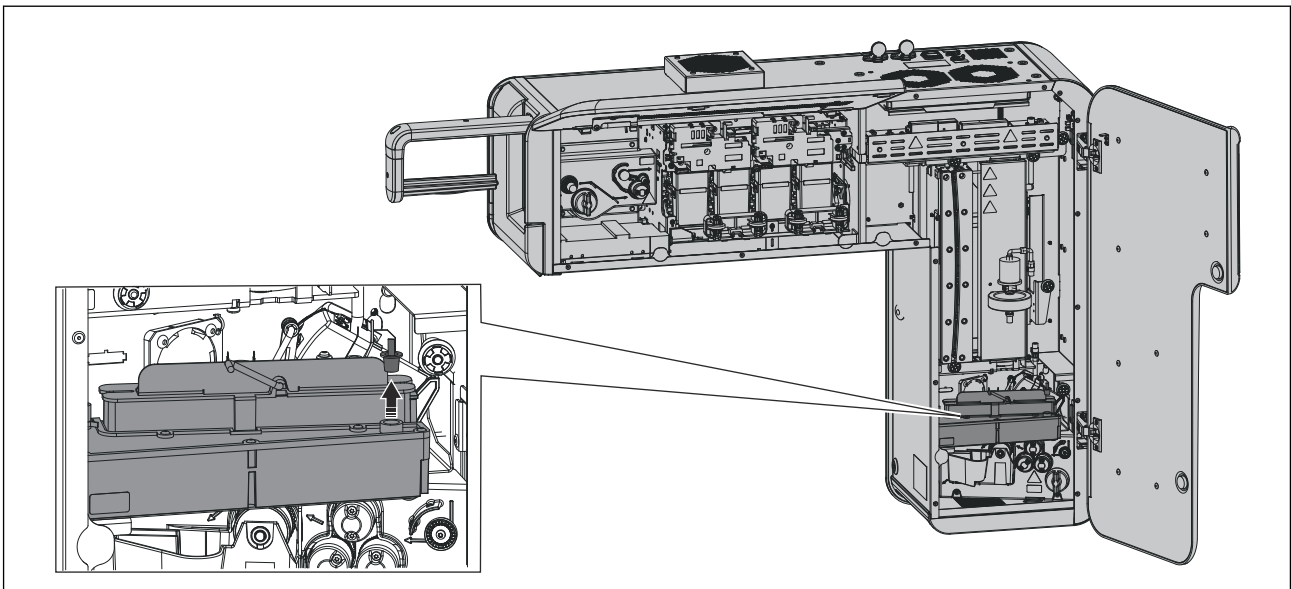
2. Use the syringe to remove the remains of the washing fluid in the container.



3. Fill with washing fluid to the max. level mark (A) of the container. Do not fill above the max. level mark.
4. Put the rubber plug in position and make sure that it is tight.

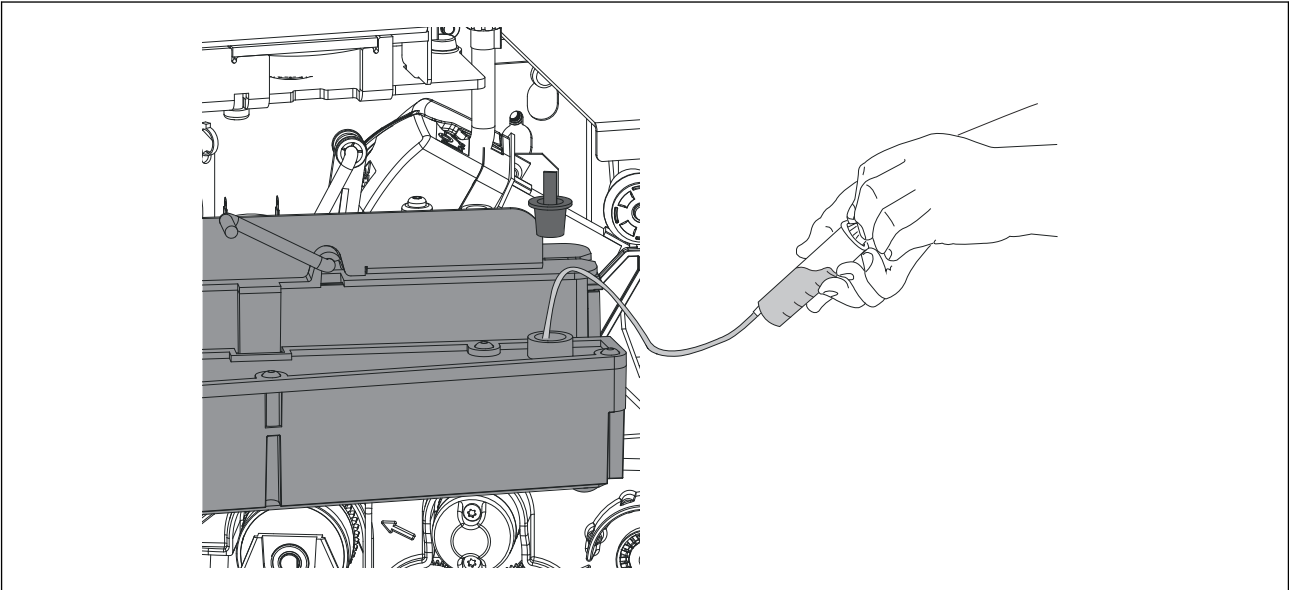
8.6 To change washer fluid, version BOM006

1. Locate the washer module.



2. Remove the rubber plug.

3. Use the syringe to remove the remains of the washer fluid in the tank.



4. Use the syringe to fill 200 ml / 6.76 oz of new washer fluid into the tank.
5. Put the rubber plug back and make sure it is attached correctly.

8.7 To perform a cleaning and a deep cleaning

During usual operation, the ITCU performs cleaning. Sometimes it is necessary to do the deep cleaning procedure to remove dirt and clogged materials from the printer heads.



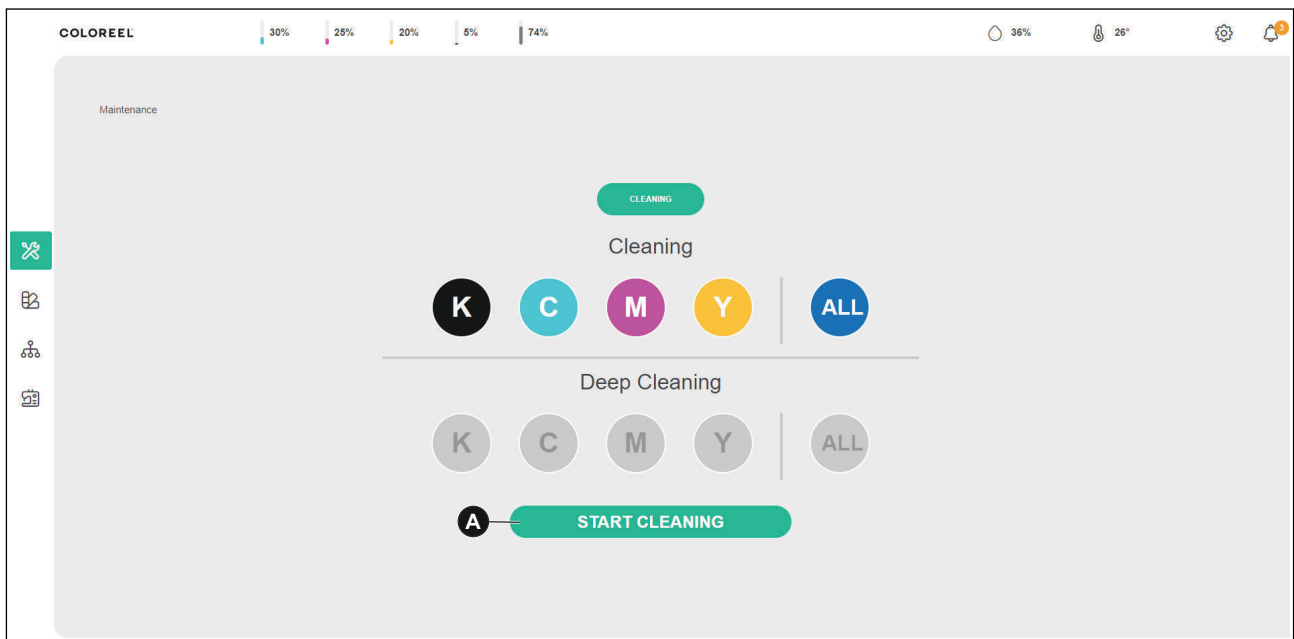
Note: When you do a deep clean, a large quantity of ink is used and should only be used if it is absolutely necessary.

1. Select 1-4 *color* buttons, or select the *All* button for all colors.



Note: You can only do 1 cleaning task at a time. You cannot select colors from both cleaning and deep cleaning at the same time.

2. Click on the *Start cleaning* button (A). The ITCU starts the cleaning. The progress of the cleaning shows in the progress bar.

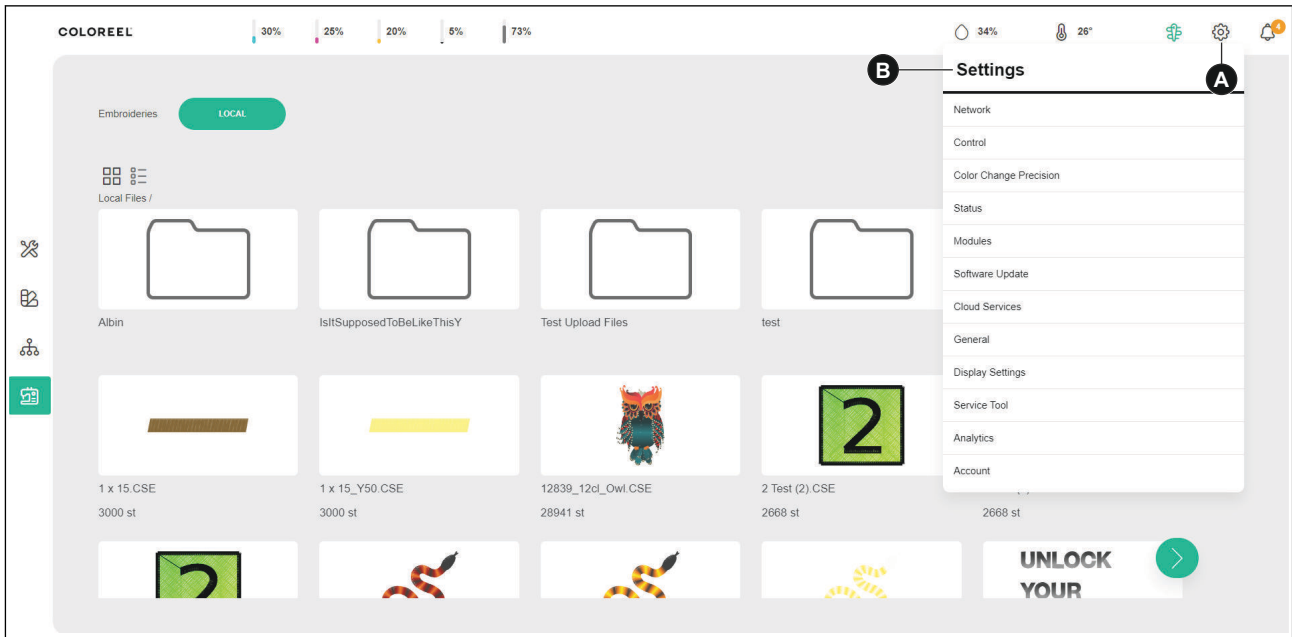


Note: The ITCU is filled with cleaning liquid during transport. This cleaning liquid is removed during installation, when the service technician performs a priming of the ITCU.

9 Settings

9.1 Settings menu

When you select *Settings* (A) in the operator panel, a list of settings shows (B).



The settings marked with x, are available for the operator and admin login credentials:

Settings	Operator	Admin
<i>Network</i>	X	X
<i>Control</i>	X	X
<i>Color Change Precision</i>	X	X
<i>Status</i>	X	X
<i>Modules</i>	X	X
<i>Software Update</i>	X	X
<i>Cloud Services</i>		X
<i>General</i>	X	X
<i>Display Settings</i>	X	X
<i>Service Tool</i>		X
<i>Analytics</i>	X	X
<i>Account</i>	X	X

9.2 Network

Network

Operator Panel Address <http://192.168.124.222/en>

(A) Obtain IP address automatically

IP Address

Subnet Mask

Default Gateway

(B) Obtain DNS server address automatically

Preferred DNS

Alternate DNS

APPLY

- Uncheck (A) to set a static IP address for the ITCU.
- Uncheck (B) to manually set a DNS server for the ITCU to connect to.



Note: It is recommended to use the default network settings.

9.3 Controls

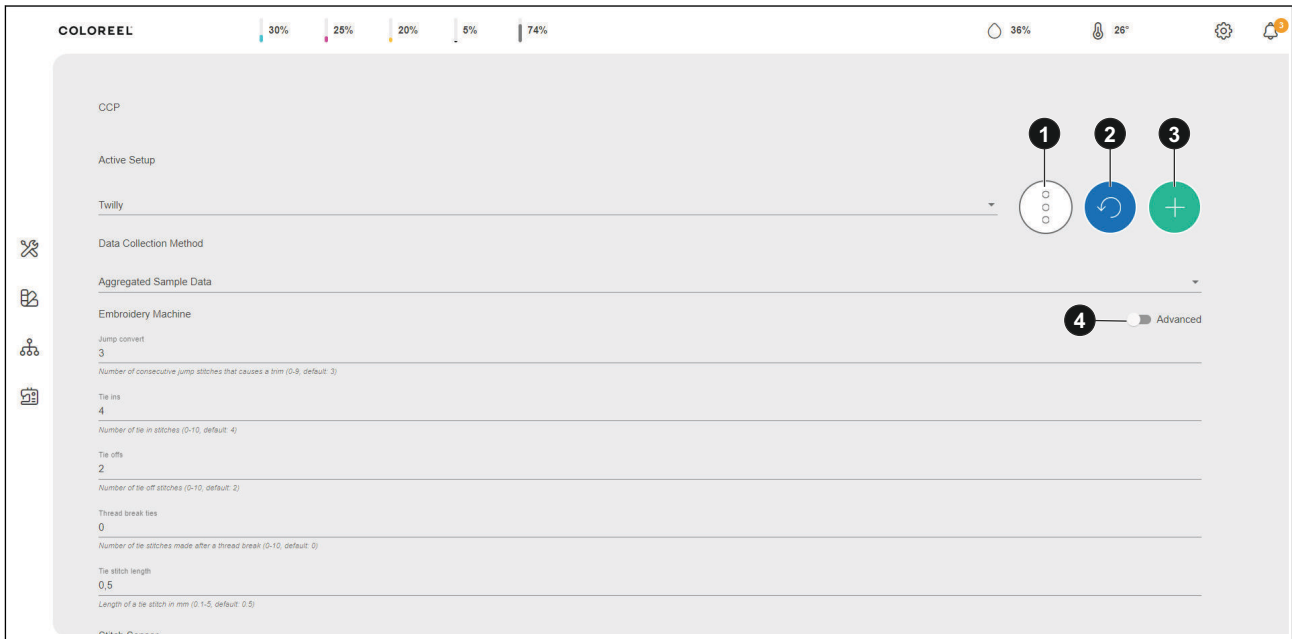
Fixation Units

Start preparing (A)

- Click on (A) to start or stop the warming up process of the fixation units.

9.4 Color Change Precision (CCP)

Embroidery machines have a natural variation on thread consumption. High quality on the result of embroideries occurs when the precision of the color changes are optimized. The ITCU has a function that optimize the color change precision through estimations of the thread consumption. It is possible to choose between 2 different data collection methods for the estimation of thread consumption. The 2 data collection methods are Single Sample Data and Aggregated Sample Data. You can verify how your design can be affected by the variation of thread consumption by the use of CCP min/max functions in Coloreel Studio.



1. Edit Active setup
2. Reset Active setup
3. Create new setup
4. Activate advanced settings for the embroidery machine

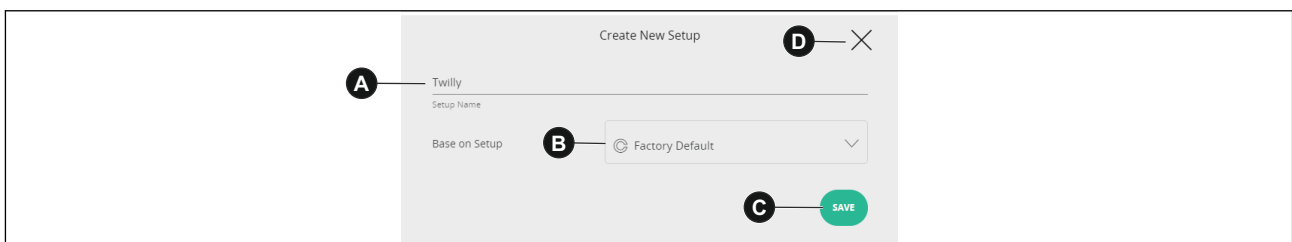
9.4.1 Active setup

9.4.1.1 To select an active setup

1. Select an active setup in the *Active setup* drop down list. Refer to [9.4](#).

9.4.1.2 To make a new active setup

1. Select *Create new setup*.
2. Give the setup a *Name (A)*.



3. Select a base setup from the drop down list (B):
 - a. If you want to create a new setup, select the option *Factory Default* or *Factory Default Thick*. *Factory Default Thick* is used for thicker than usual fabrics. Independently of which option is used, the learning curve will adapt to the fabric.
 - b. If you want to use a setup that is in the setup library as a base, select that setup in the drop down list.



Note: If a new setup is based on a setup that already exists, its coefficients are copied but the memory of the new setup is empty. This makes the learning curve faster for a new embroidery.

4. Click on *Save (C)* to add the new setup to the setup library.
5. Select *Close (D)*.

9.4.1.3 To optimize the CCP for a new active setup

1. If you want to do the embroidery on a new fabric, backing combination or with a new/different embroidery machine, create a new active setup.
2. Do 2 *Coloreel EQT* training embroideries with your new active setup activated. Refer to, [9.4.1.1](#). If you do not have the *Coloreel EQT* stitch and color files, speak to Coloreel support.

The active setup is now ready to be used.

9.4.1.4 To reset an active setup

The *Reset Active setup* resets the setup coefficients to *Factory Default* or *Factory Default Thick*, and deletes the memory of the setup. This gives the learning curve a clean start.

1. Select *Reset Active setup*. Refer to section [9.4](#).
2. Select to reset the CCP setup to *Factory Default* or *Factory Default Thick*.
3. Click on the *Reset* button.
4. Select *Close (D)*.

9.4.1.5 To edit or delete active setups

1. Select *Edit* next to active setup.
2. Select *Edit setup*.
3. If you want to delete the active setup, select *Delete*.

9.4.2 Data collection method

9.4.2.1 To select the data collection method



Note: It is only possible to create and use an active setup if aggregated sample data is used. The default data collection method is aggregated sample data.



Caution: The active setup that is active on the ITCU will be trained regardless of what data collection method that is used.

1. Select the data collection method that you want to use in the drop down list below Data collection method.

9.4.2.2 Aggregated Sample Data

Aggregated Sample Data stores thread consumption data in a memory and uses the data to estimate thread consumption to optimize the color change precision. Aggregated Sample Data is the default data collection method.

Aggregated sample data with an active setup

It is possible to create active setups to make specific estimations for, for example, fabrics, backing combinations and embroidery machines.

To use Aggregated Sample Data

1. Make sure that the stitch file (.DST) and the color file (.CSE) are created correctly and that they are digitized to optimize color changes. Refer to the documents and videos about how to digitize the embroideries that are available on the *Distribution Webpage*.
2. Make sure that you have selected *Aggregated Sample Data* as data collection method. Refer to, [9.4.2.1](#).
3. Make sure that the correct active setup is active. Refer to, [9.4.1.1](#).
4. Start the print job. Refer to, [5.6.2](#).

9.4.2.3 Single Sample Data

Single Sample Data uses the thread consumption from the most recent print job of the same embroidery as an estimation to optimize color change precision.

To use Single Sample Data

Single Sample Data can be used when you have an embroidery machine with, for example, an active thread feeder function or very low variations of thread consumption.



Note: The Single sample data collection method always requires one training embroidery on the correct fabric to work correctly.

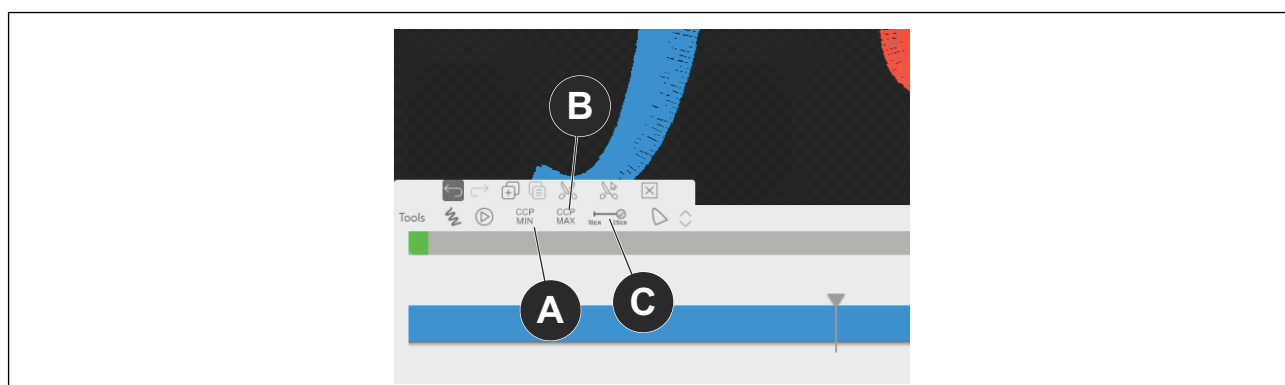
1. Make sure that the stitch file (.DST) and the color file (.CSE) are created correctly and that they are digitized to optimize color changes. Refer to the documents and videos about how to digitize the embroideries that are available on the *Distribution Webpage*.
2. Select single sample data as the data collection method. Refer to, [9.4.2.1](#).
3. Start the print job. Refer to, [5.6.2](#).

9.4.3 Embroidery machine

9.4.3.1 To verify the sensitivity of the design

Coloreel Studio has a function to verify if a design is robust or if it is sensitive to the natural variation of thread consumption.

1. Open your design in Coloreel Studio.
2. Press the CCP min (A) and CCP max (B) to see if the color change will have an high impact on potential variation.



3. Press (C) To switch from the recommended setting, +/- 25 cm / 9.8 in., to the more narrow interval of +/-10 cm / 3.9 in.

9.4.3.2 Stitch count settings

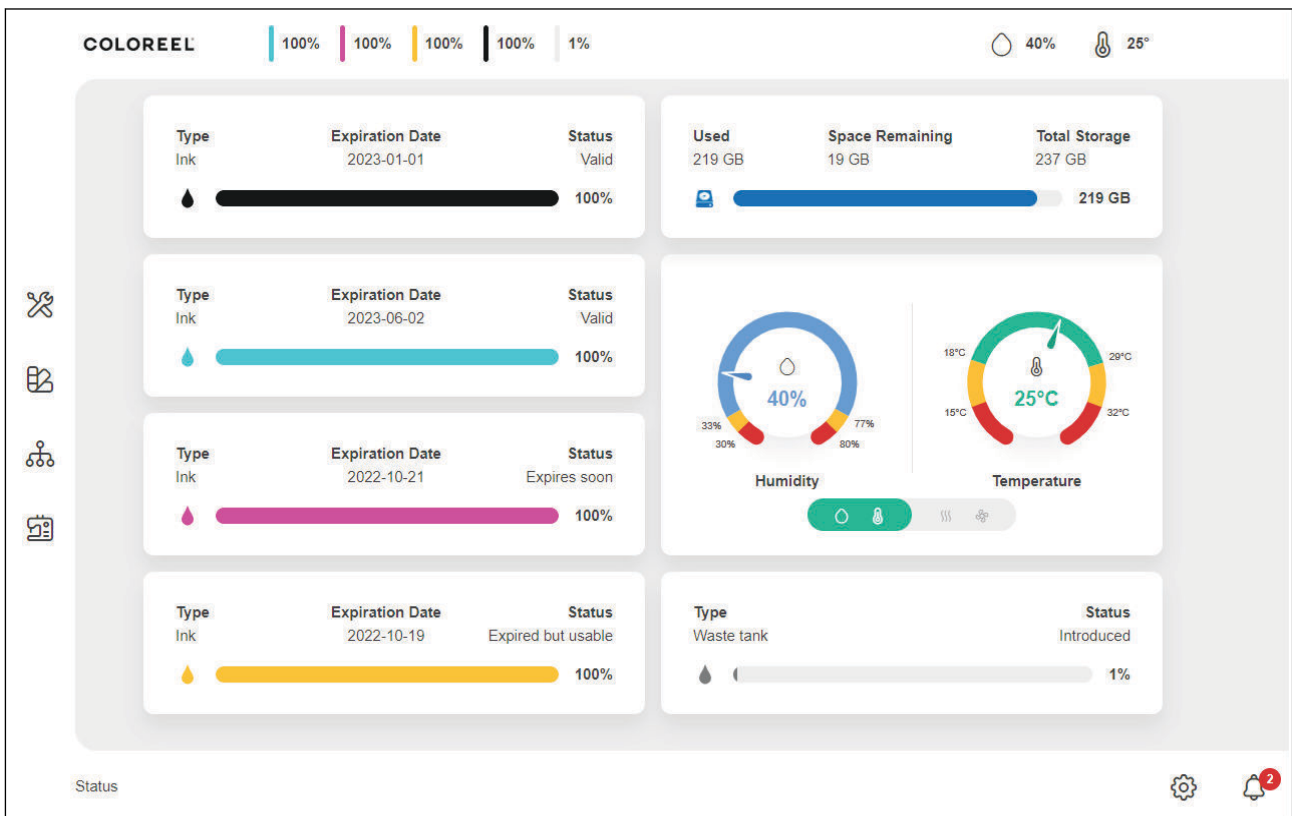
To improve Color Change Precision, CCP, you need to add the stitch count information from the embroidery machine. Add the stitch count information in the rows below Embroidery machine in the Color Change Precision, CCP section. Activate advanced stich count settings for additional parameters. See below for the stitch count information that is required to set the parameters correctly:

For specific embroidery machines, navigate to the support section on www.coloreel.com.

Standard	
Jump convert	Number of consecutive jump stitches that causes a trim (0-9, default: 3)
Tie ins	Number of tie in stitches (0-10, default: 4)
Tie offs	Number of tie off stitches (0-10, default: 2)
Thread break ties	Number of tie stitches made after a thread break (0-10, default: 0)
The stitch lenght	Length of a tie stitch in mm (0.1-5, default: 0.5)

Advanced	
Remove DST stitches without any length (default: on)	ON/OFF
Stitch sensor mounted on main shaft	ON/OFF
Additional main shaft rotations during trim	Number of main shaft rotations that occur during trim excluding tie stitches (0-5, default: 1)
Additional main shaft rotations during color change	Number of main shaft rotations that occur during color change excluding tie stitches (0-5, default: 2)

9.5 Status



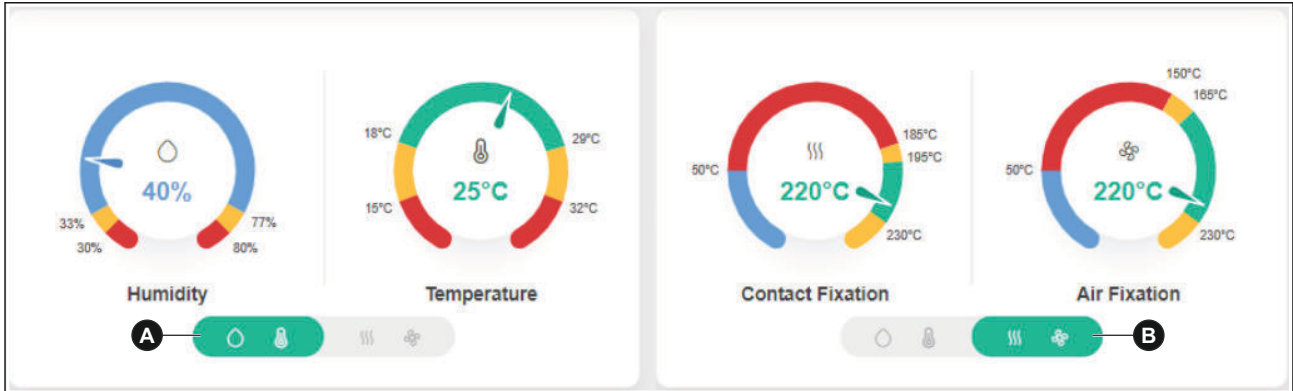
The status page shows the parameters that follow:

- Ink levels, type expiration date and status on each cartridge.
- The used space of the local storage on the ITCU.
- Humidity and temperature gauges of the print engine. Temperature gauges of the fixation unit. Refer to [9.5.1](#).
- Waste tank level.



Note: You can also open the status page if you click on the status bar in operator panel.

9.5.1 Humidity and temperature gauges



The blue and green fields of the gauges indicates that the humidity and temperature is in normal range. Yellow indicates warning and red indicates that there is an error.

- Print engine climate (A). The left gauge shows the humidity and the right gauge shows the temperature of the print engine.
- Fixation unit temperatures (B). The left gauge shows the temperature of the contact fixation unit. The right gauge shows the temperature of the air fixation unit.

9.6 Modules

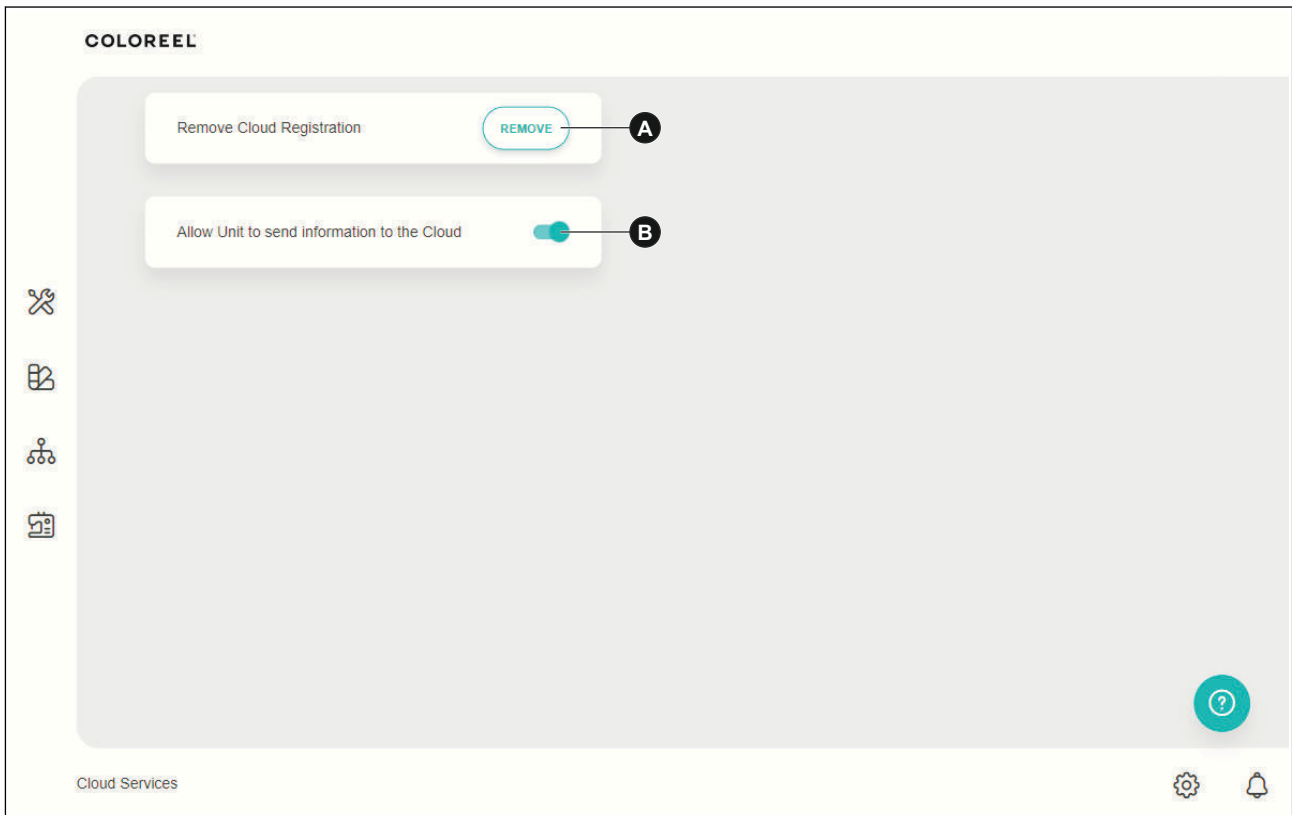
The screenshot shows the COLOREEL interface. At the top, there are status indicators for humidity (30%, 25%, 20%, 5%, 74%) and temperature (36%, 26°). Below this is a 'Modules' section with a list of modules: ITC-U, Computer, CTL, Entry, PE, Fixation, Washing, Exit, and Lubrication. A circular marker 'A' is placed next to the 'ITC-U' module. To the right of the list is a detailed view for the 'ITC-U' module, showing the following information:

ITC-U	
Name	ITC-U
Article Number	BOIM001
Revision	1
Week	2126
Serial	000000171

Select a module in the list (A) to see *Name*, *Article number*, *Revision*, *Week* and *Serial* for the different modules in the ITCU.

9.7 Cloud services

- The *Remove* button (A) removes the cloud registration details. Only do this in coordination with a Coloreel service and support specialist.



- The (B) button lets the ITCU send information to the cloud services. This information makes it easier for Coloreel service and support specialists to troubleshoot the ITCU if it is necessary.

9.8 Software Update

It is possible to update the software of the ITCU in both online and offline mode.



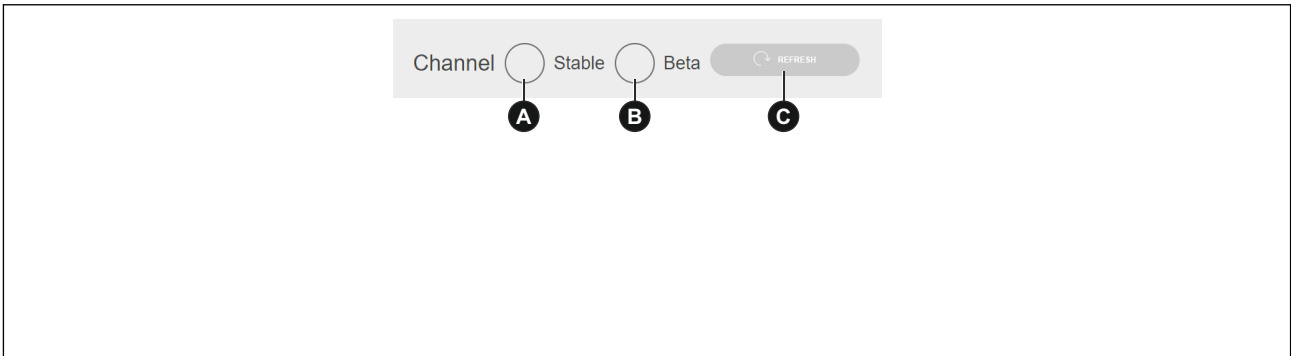
Caution: When you do an update from versions earlier than 1.2, keep the channel that is currently in use. When you have successfully upgraded the software to 1.2, please use the recommended channel, Stable channel, when you update to versions 1.2.X and later.



Note: Updates from earlier version may not provide information about the progress of the update.

9.8.1 To select software channel

1. Click on Stable channel (A) or Beta channel (B) in the update software window.

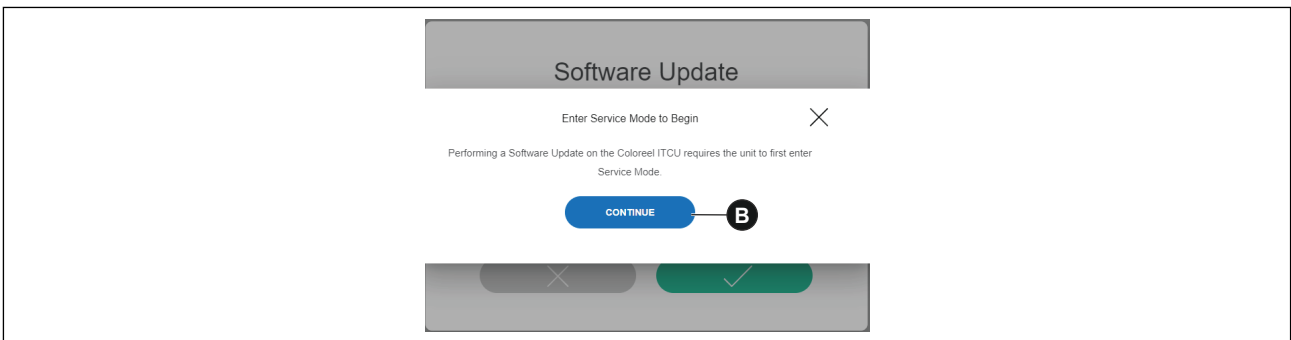


2. Click on refresh (C) to save your choice.

9.8.2 To do an online software update

When there is a new software version available in the channel that you currently have as active, you will be notified with the *Software Update Available* notification.

1. Click on the *Install update* button. The *Install update* button appears when there is an available update. A pop-up window will ask you to set the ITCU in *Service Mode*.
2. Click on the *Green checkmark* button.
3. Click on the *Continue* button (B) to start the software update.



Note: Make sure that the ITCU is on until the update is complete.

9.8.3 To do an offline software update

Speak to a Coloreel distributor to get the software update files on a USB-drive.

1. Make sure that the .ITCU-file is unpacked and not in a ZIP-file.
2. Put the USB-drive with the software update files on in the USB port of the ITCU.
3. Click on *Install update*. The *Install update* button appears when there is an available update. A pop-up window will ask you to set the ITCU in *Service Mode*.



Note: if the Offline Update Available is not shown, refresh the web browser.

- Click on the *Green checkmark* button to start the software update.



Note: Make sure that the ITCU is on until the update is complete.

9.9 General

- Choose language (A). Select language in the drop down list. Click on the *Confirm language setting* button.
- Unit registration (B). Refer to *To set a name to a ITCU 9.9.1*.
- Logs. Refer to *To download logs 9.9.2*.
- Configuration. Restore the default configuration (D) or update a configuration (E).
- Thread length between queued embroideries (F). Refer to *9.9.3*.

9.9.1 To set a name to a ITCU

It is possible to set a unique name to a ITCU, that will be visible in the list of clients when you do multi-head setups.

- Select *Settings* in the operator panel. Refer to *3.8*.
- Select *General* in the settings menu. Refer to *9.1*.
- Click on *Edit* (A).

4. Set a name to the ITCU in field (B).

9.9.2 To download logs

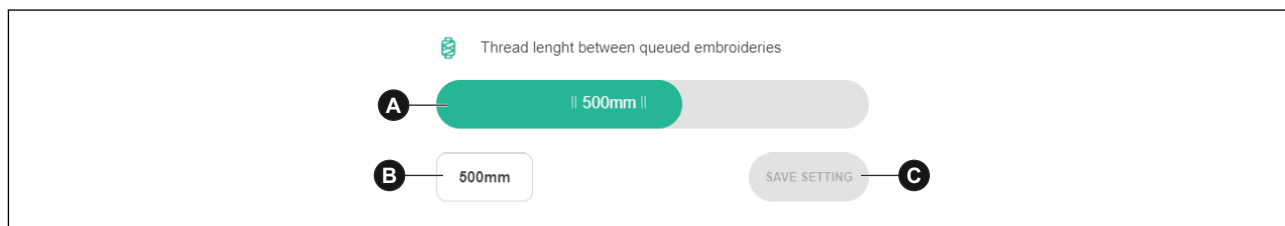
You can download logs to a PC, or a USB-drive connected to the ITCU.

1. Click on the drop down list. Select what type of log to download.
 - a. Recent logs. Only recent logs are downloaded, no zip-files.
 - b. HDB logs. Logs from HDB are included.
 - c. Embroidery logs. Embroidery logs are included.
2. Click on the *Download* button (C).

9.9.3 Thread length between queued embroideries

The thread length between embroideries can be adjusted to the thread consumption of the embroidery machine. For example, if the start marker for the next embroidery is printed before the active print job is finished, it is possible to increase the thread length between embroideries. The preset value is 500 mm. The value is stored on the ITCU and applies to the specific unit only.

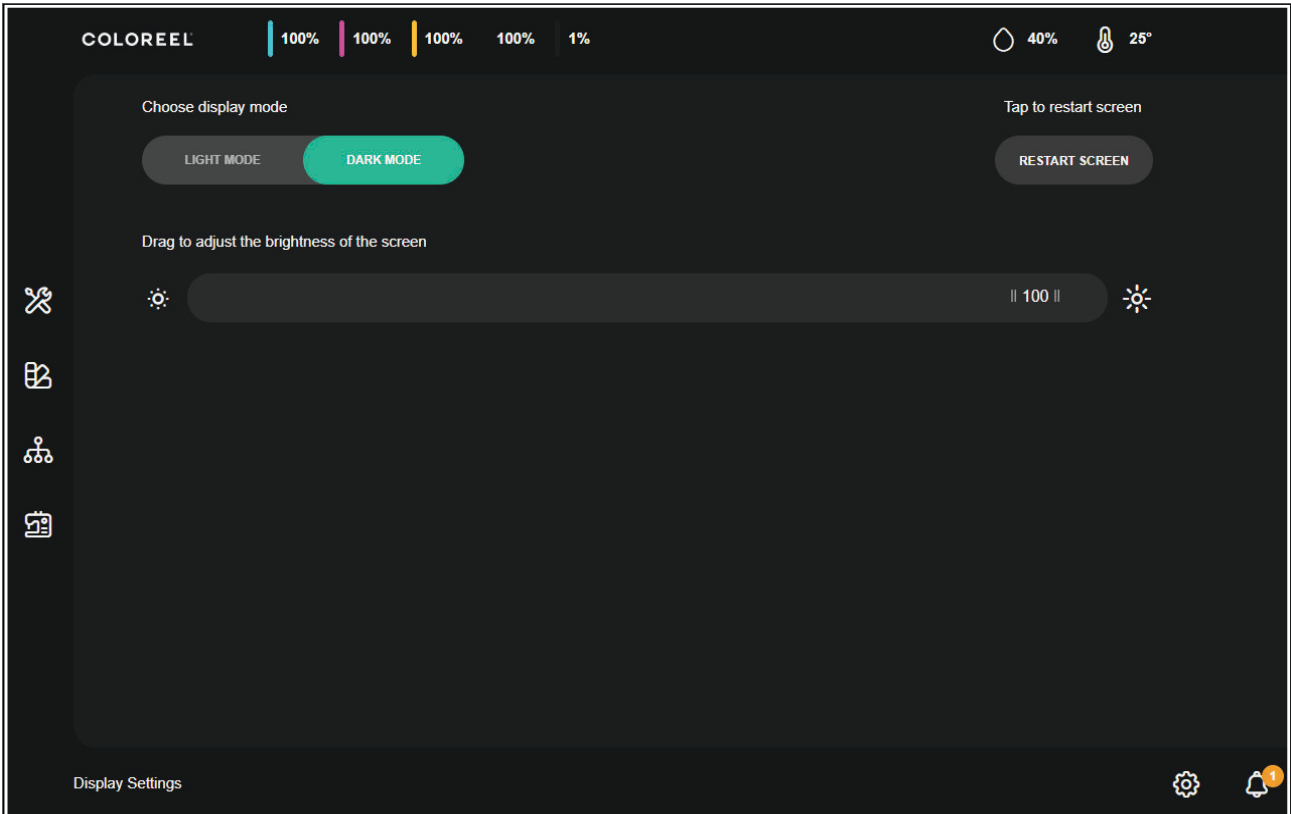
1. Select *Settings* in the operator panel. Refer to [9.1](#).
2. Select *General* in the settings menu. Refer to [9.9](#).
3. Click and pull (A) to change the value, or enter the value in the field (B).



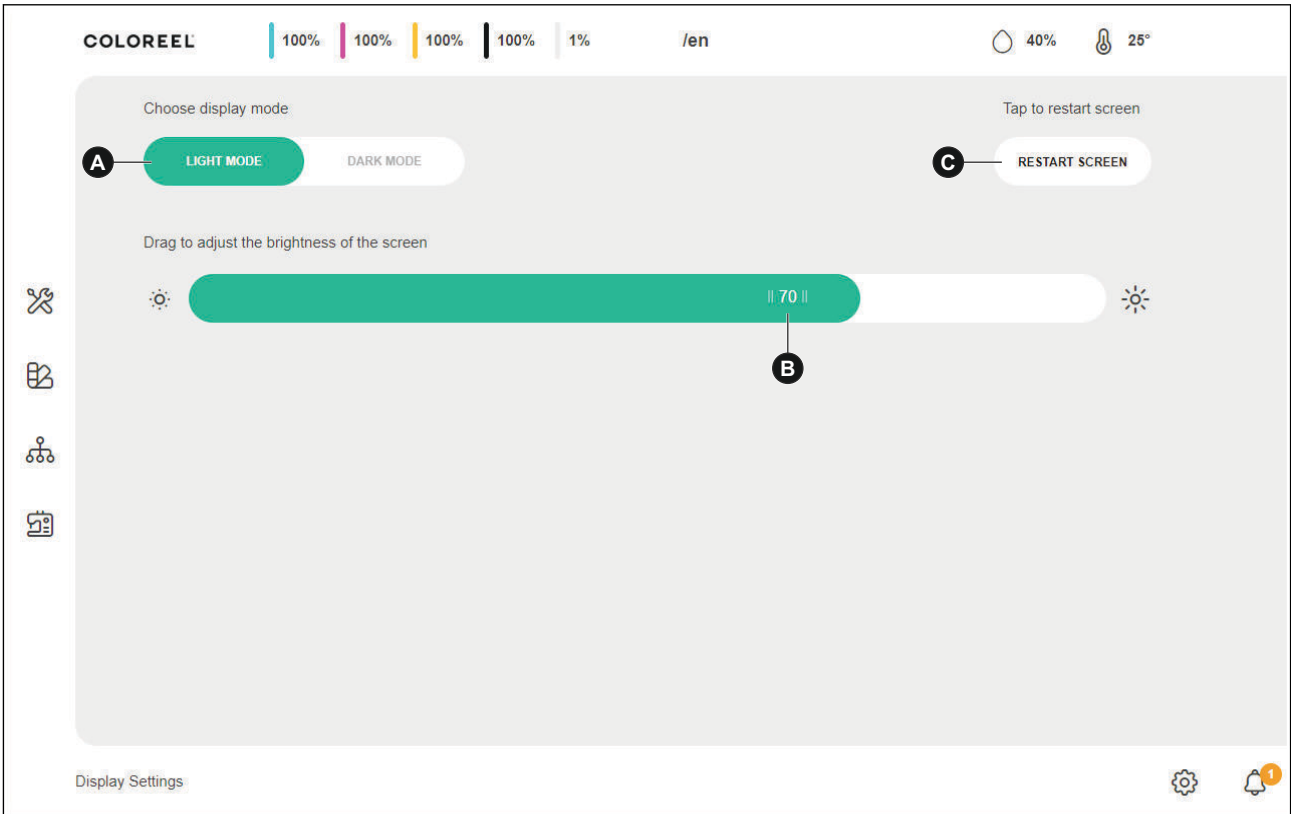
4. Click on the *Save setting* button (C). The value is saved until a new value is entered.

9.10 Display settings

Activate *Dark mode* for a display mode with darker colors for the background and lighter colors for text.



- Select *Light mode* or *Dark mode* (A).



- Drag (B) to adjust the brightness of the screen.



Note: To adjust the brightness on the screen is possible on the ITCU and in light mode only.

- Click/tap on *Restart screen* to restart the ITCU screen. Restart screen is done on the ITCU or remotely.

9.11 Service tool

When *Service tool* is selected you are rerouted to the service tool page.



Note: It is not recommended or possible or to access all settings with the admin login credentials. A notification shows if you try to perform a setting without the correct credentials. Speak to a Coloreel approved service technician if you need to access a setting in service tool.

9.12 Account

Refer to *To log out* [4.5.3](#).

9.13 Analytics

The analytics screen shows analytics and statistics data for the ITCU. Click on the 2 tabs in the bottom bar of the operator panel to get access to the data:

- *System and consumables data*
 - Runtime statistics
 - Waste tank changes
 - Ink cartridge changes
- *Embroidery data*
 - A summary of the completed print jobs in the past 3 months.
 - Specific data for each print job.

10 Troubleshooting

10.1 Notifications

There are 2 types of notifications. Notifications with an exclamation mark, !, and notifications without an exclamation mark. We recommend that you resolve all notifications with an exclamation mark before you start a print job.

You can see when the notification occurred, next to the notification.

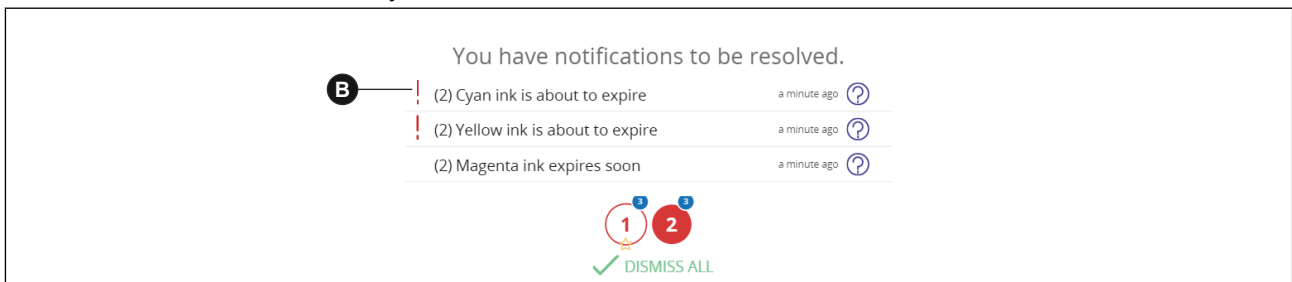


Note: If you cannot find the source of the error, speak to a Coloreel approved service technician.

- Select *Notifications* in the operator panel overview to see a list of all active notifications (A). When there are notifications, a red dot shows on the *Notifications* icon. If you click on the arrow next to the notification a pop-up window with detailed information shows.



- A pop-up window with notifications. We recommend that you resolve all notifications with an exclamation mark, !, (B) before you start a print job. In a multi-head group, the pop-up window with notifications only shows on the ITCU that is set as host unit.



- Notifications in a multi-head group. You can see if the host unit and the clients have notifications (C) in the *Multi-head setup* page. If it is not possible to resolve the notification in a client, you can temporarily disable the client and still continue with the print job with the other clients. Refer to the *Installation manual and Full Operator Manual* to disable a client.



10.2 Troubleshooting

Problem	Action
The ITCU does not start.	Check the power cable connection.
The ITCU was switched off before it was stopped or there was a failure of the power supply when the ITCU was operated.	Start the ITCU within 50 minutes to avoid damages to the print engine. Obey the instructions in chapter 4.5.2 to switch off the ITCU correctly.
The ITCU LED light does not show different colors.	The LED light with status indication is available in the newer versions of the ITCU. In older versions of the ITCU, the LED light has the color green only.
You forgot your password.	Speak to Coloreel support if it is necessary to reset you password.
You forgot your PIN code.	Refer to chapter <i>To change pin code or password</i> in the <i>Full Operator Manual</i> to change the PIN code.
The ITCU does not show any IP address or shows odd signs as IP address.	Check the ethernet cable connection and restart the ITCU.
	Make sure that the network has DHCP (Dynamic Host Configuration Protocol). DHCP is needed to be able to assign IP address.
The Gallery Screen on the ITCU does not show any design files.	Upload a Color Management file (.CSE file) to the ITCU and verify that the corresponding stitch file is uploaded to the embroidery machine.
Pale colors	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Make sure that the ambient temperature and humidity is within the specified levels. Refer to, 11.1 .
	Perform a Clean All. Refer to the <i>Installation manual and Full Operator Manual</i> .
No color	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.

Problem	Action
	Do a Clean All procedure of the Printer Heads. Then do a check of the colors. Refer to the <i>Installation manual and Full Operator Manual</i> .
	If you tried the Clean All procedure 3 times without satisfactory result, do a Deep Clean All procedure of the Printer Heads. Refer to the <i>Installation manual and Full Operator Manual</i> .
One of the colors does not work	Do a Clean procedure. Refer to the <i>Installation manual and Full Operator Manual</i> .
A short part of the thread is not colored or colored with a different color.	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Open the entry feeder fully and make sure that the Encoder Wheel moves when you move the thread.
	Do a Clean procedure. Refer to the <i>Installation manual and Full Operator Manual</i> .
The thread or embroidery is dirty or has dull and light colors.	Replace the washing fluid.
Thread tangling in the Lubrication Module / Exit Feeder.	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Make sure that the thread is not stuck in the Exit Feeder module.
	Make sure that the Buffer Arm moves freely and that it moves to the top position.
The thread breaks in the ITCU.	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Make sure that it is enough lubrication fluid in the Lubrication Module.
The thread breaks in the embroidery machine.	Make sure that it is enough lubrication fluid in the Lubrication Module.
	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
The thread is stuck in the ITCU.	Make sure that the ITCU is threaded correctly.
The thread is rigid or have burn marks.	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Make sure that the Fixation Module evacuates from the thread when no thread is consumed.
There is a warning of low level in the washing module.	Fill with washing fluid in the washing module container.
The washing fluid does not circulate as expected.	Make sure that there is enough washing fluid in the washing module container.
	Replace the carbon filter and the particle filter.
No stitch data	Make sure that the Stitch Sensor is connected.
	Make sure that the Stitch Sensor can read the embroidery machine movement correctly.
	Make sure that the Stitch Sensor Cable is not broken or damaged.

Problem	Action
Double stitch data	Adjust the position of the Stitch Sensor to make sure that it reads the embroidery machine movements.
	Change the settings in the <i>Service Tool</i> .
Incorrect stitch data	Make sure that the Stitch Sensor Cable is not broken or damaged.
	Adjust the position of the Stitch Sensor to make sure that it reads the embroidery machine movements.
The start marker is not visible.	Perform a cleaning. Refer to the <i>Installation manual and Full Operator Manual</i> .
The color changes of the embroidery looks randomized or incorrect.	Make sure that the thread is threaded correctly and that the Entry and Exit feeder are fully closed.
	Make sure that the Stitch Sensor Cable is not broken or damaged.

11 Technical data

11.1 Technical data

	ITCU
Weight	
Weight, kg/lbs	64/141
Temperature	
Operation temperature, C°/F°	18-28/64-82
Operation Humidity (RH), %	30-80
Storage temperature, C°/F°	10-30/50-86
Performance range	
Maximum thread coloring speed, mm/s /in/s	200/7.9
Hardware information	
Power supply	AC 100-240V ~ 5.5A 50/60Hz, max 600W
Screen	10.1 in Multi Touch
Lighting	Front: RGB LED, Bottom: Adjustable White LED warm/cold
Stitch counter	Optical stitch sensor including cable and bracket
Digital information	
Operating system	Linux (Ubuntu core)
File transfer	USB, Ethernet
Thread information	
Small thread cone, km/miles	5/3.1
Large thread cone, km/miles	10/6.2
Approved for Coloreel	Polyester thread: 2 Ply, 40"
Ink	
Small ink cartridge, ml/oz	75/2.5
Large ink cartridge, ml/oz	200/6.8
Washing fluid	
Type	Water based
Volume version BOM006, ml/oz	250/8.45
Volume version BOM032, ml/oz	500/17
Lubrication	
Type	Silicon/wax
Filter	
Type	Air filter
Type	Carbon filter
Type	Particle filter

11.2 Consumables

Thread	Length
Small thread cone	5 km / 3.1 mi
Large thread cone	10 km / 6.2 mi

Ink Cartridges	Size
Small Ink Cartridge	75 ml / 2.5 oz
Large Ink Cartridge	200 ml / 6.8 oz

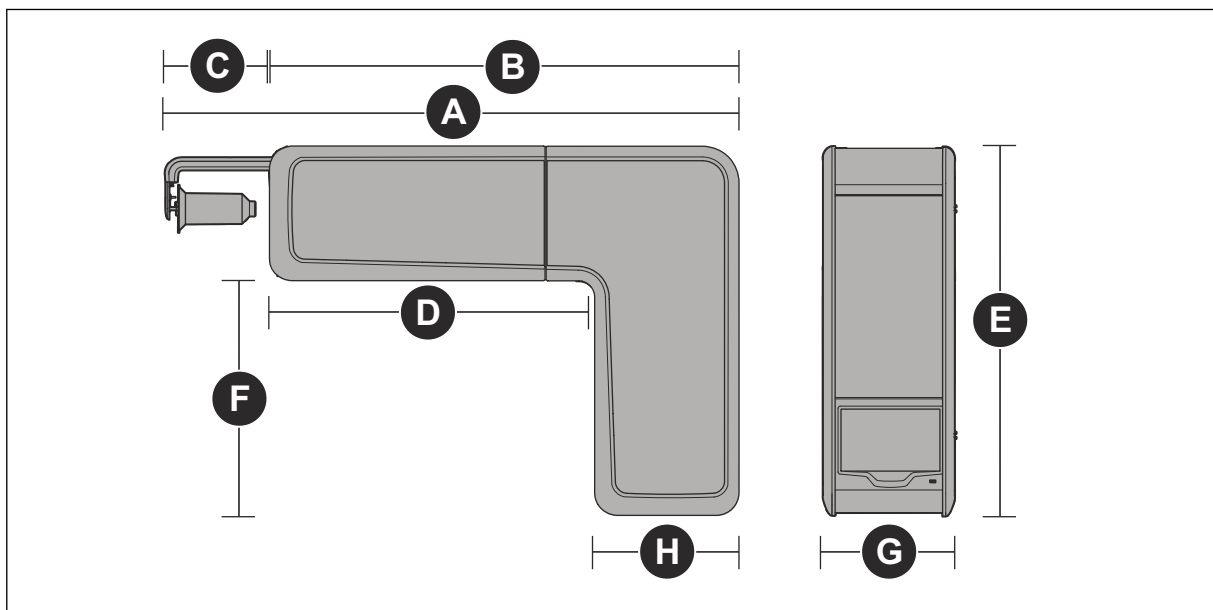
Waste Tank	Size
Reusable Waste Tank	One Size

Washing Liquid	Size
Bottle	1 L / 0.26 gal

Lubrication Liquid	Size
Bottle	1 L / 0.26 gal

Filters	Size
Air filter	One Size
Carbon filter	One Size
Particle filter	One Size

11.3 Dimensions



Reference	mm/in
A	1265/49.8
B	1034/40.7
C	230/9.1
D	716/28.2
E	845/33.2
F	518/20.4
G	305/12
H	318/12.5

12 Terminology and abbreviations

Admin login credentials	The user of the ITCU, logged in with admin credentials from a web browser. To see the settings that are available for operator and admin login credentials, refer to the <i>Settings menu</i> in chapter 9.1 .
API	Application Programming Interface
CCP	Color Change Precision
C, M, Y and K.	A color model with 4 base colors; Cyan, Magenta, Yellow, and Key (black).
Coloreel Studio (CS)	A Coloreel software to add colors to the stitch file.
DNS server	Domain Name System server
Emroidery machine	The ITCU is connected to an embroidery machine. The embroidery machine stitch patterns on textiles, with the colored thread from the ITCU.
EQT	Embroidery Quality Test
HDB logs	Head Driver Board logs
IP address	Internet Protocol address. In this manual, a unique address that identifies the ITCU.
ITCU	Instant Thread Coloring Unit
Single head	1 ITCU
Multi-head	>1 ITCUs
Operator	The user of the ITCU.
Swatch printing	A print of a solid color swatch, a gradient swatch or a multipoint swatch directly on the thread.
Service tool	A service tool for some maintenance that is reached with admin login credentials.
.DST file	A stitch file with instructions for stitching an embroidery design, saved in Data Stitch Tajima format.
.CSE file	A file made in Coloreel Studio for the ITCU. The .CSE file contains instructions for the coloring of a specific stitch file.
.CSL file	CSL files are Color Swatch Library files that are made with Coloreel Studio.

Unlock your potential

Coloreel is a Swedish textile innovation brand with groundbreaking technology that enables high-quality coloring of textile thread on demand, unlocking a world of potential.

If you have questions contact us at:

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