

# Process LENA Devices with LENA Hub (Transfer, upload, process)

This article offers a few ways to learn about device processing, for which you will need:

- Windows computer with [LENA Hub installed](#)
- LENA Online **username** and **password**
- [Assigned LENA devices](#) with data
- **Multi Dock** with power cord, cable to computer, and USB cable for each LENA device
  - If processing just one device at a time, you do not need the Multi Dock as you can connect the device directly to the Hub computer via USB cable
- **Time:** About 5 minutes of active time per set of 10 devices for assignment confirmation and data transfer. After transfer, uploads will take 5 to 30 minutes per file, depending on Internet speed. The computer must remain powered on and connected to the Internet, but the user does not have to do anything.

## Printable PDF of the basic processing steps

Click here for basic processing instructions to print and keep with your Hub computer.

[Click](#) to open this PDF. Print it to keep it with your Hub computer for reference.

**LENA** **How to Process LENA Devices with LENA Hub**

*Building better through early talk*

- 1 Open LENA Hub.**  
Log on with your LENA username and password.
- 2 Set up a Multi Dock.**  
1. Start with an empty Multi Dock and USB cables – no LENA devices attached.  
2. Connect the Multi Dock to a power outlet.  
3. Connect the Multi Dock to the LENA Hub.
- 3 Turn on all LENA devices and check for contents.**  
**Powered** → No elapsed time → Empty  
**Powered 12:01:23** → Elapsed time → Paused  
**Memory Full** → Full capacity LENA Day
- 4 Connect, confirm, repeat.**  
1. **Connect ONE** device to the Multi Dock.  
2. **Confirm** that the name shown matches the name on the device.  
3. **Repeat** until the Multi Dock is full.
- 5 Let LENA files transfer to Hub.**  
After transfer, the charging status is displayed. The LENA Device will be empty and the data will be uploading/processing. You can:  
• Keep the Multi Dock connected to LENA Hub and power to see charging progress.  
or  
• Disconnect the Multi Dock from Hub, but leave it plugged in to power until charging completes.
- 6 Leave Hub open\* until all LENA files upload to the cloud (or finish processing locally).**  
Your computer must be **on**, connected to **Internet**, and **not sleeping** until Hub shows **Uploading** or **Processing**.

\*If your Hub is set for deferred processing, you may close the program now. Hub will hold the unprocessed data. You must reopen Hub and process the held files as soon as is practical, and at least one day before reports are needed.

**LENA** For more information, contact:  
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## Video instructions

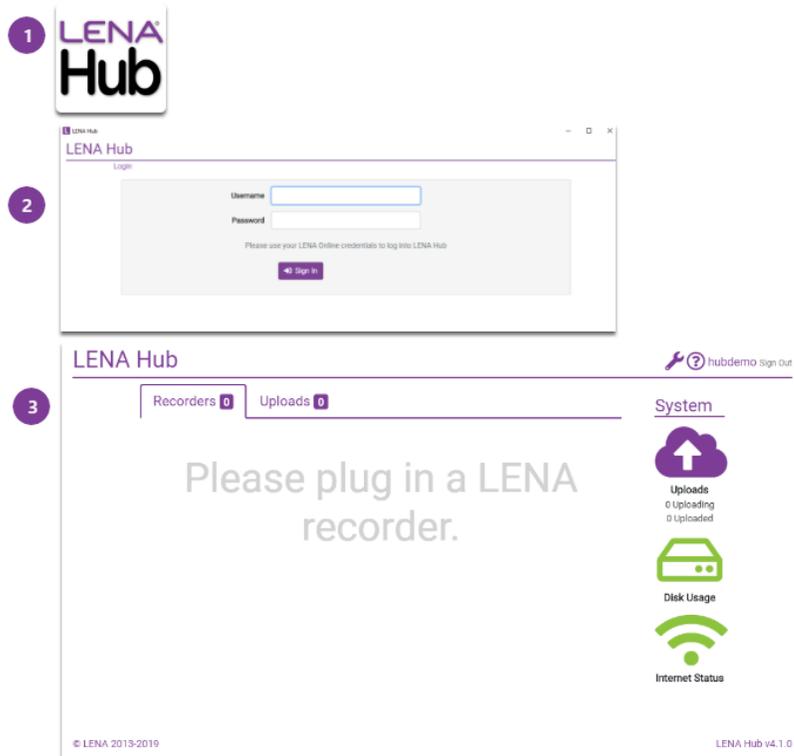
Click here to watch a set of videos on how to process LENA devices.

## Detailed instructions

Click each step for specifics. These steps match the PDF and video, but they include suggestions for when things don't go according to plan.

### 1. Open LENA Hub.

1. Click the LENA Hub icon on your computer's desktop.
2. Log in with the same username and password you use to access LENA Online.
3. The main LENA Hub screen opens.



What if Hub does not prompt me to log in?

If there's no login prompt, your Hub is configured so that a person without a LENA account can use it.

**⚠** In this configuration, each device will transfer and process automatically for the child to whom it is currently assigned. You will not have the option to check and confirm that it is going to the right child. In most cases, requiring a log in and displaying assignment information is preferred. This [setting can be adjusted](#) using the wrench icon.

## Help! Authentication failed

Get help with [problems logging into Hub](#).

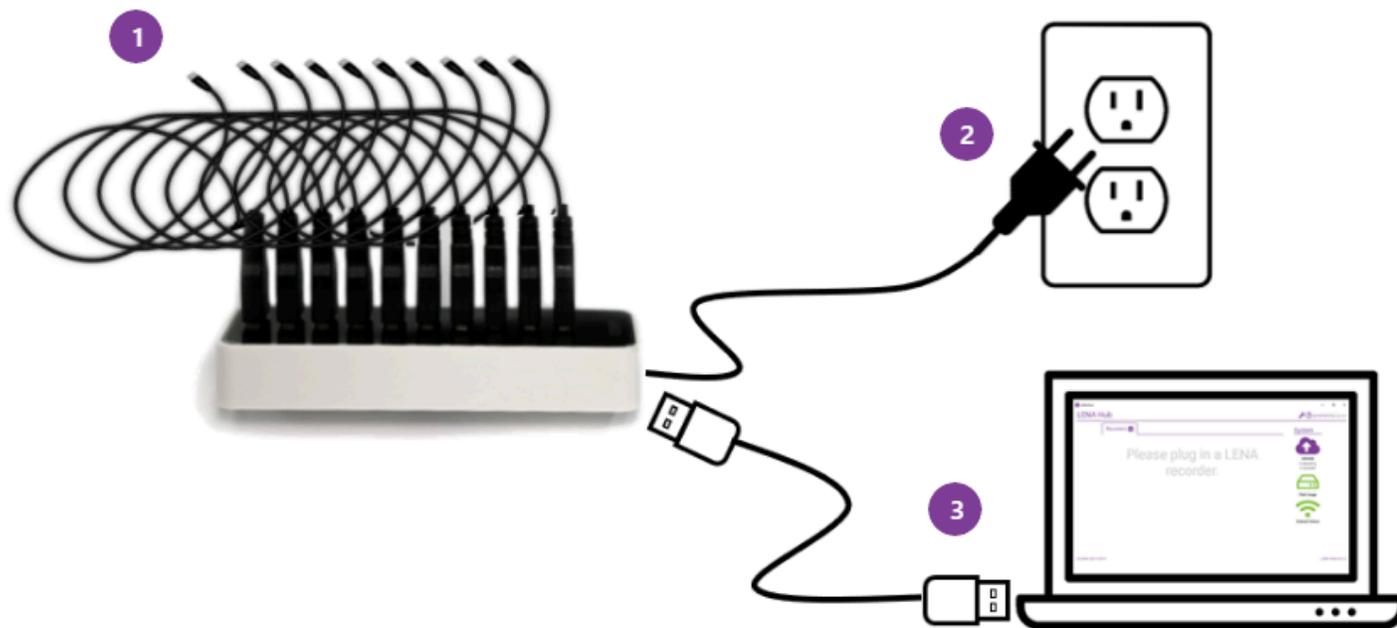
## Help! Could not connect to the LENA Device Service

Something went wrong with Hub's helper program. Learn how to [fix the device service error](#).

## 2. Set up the Multi Dock, if using.

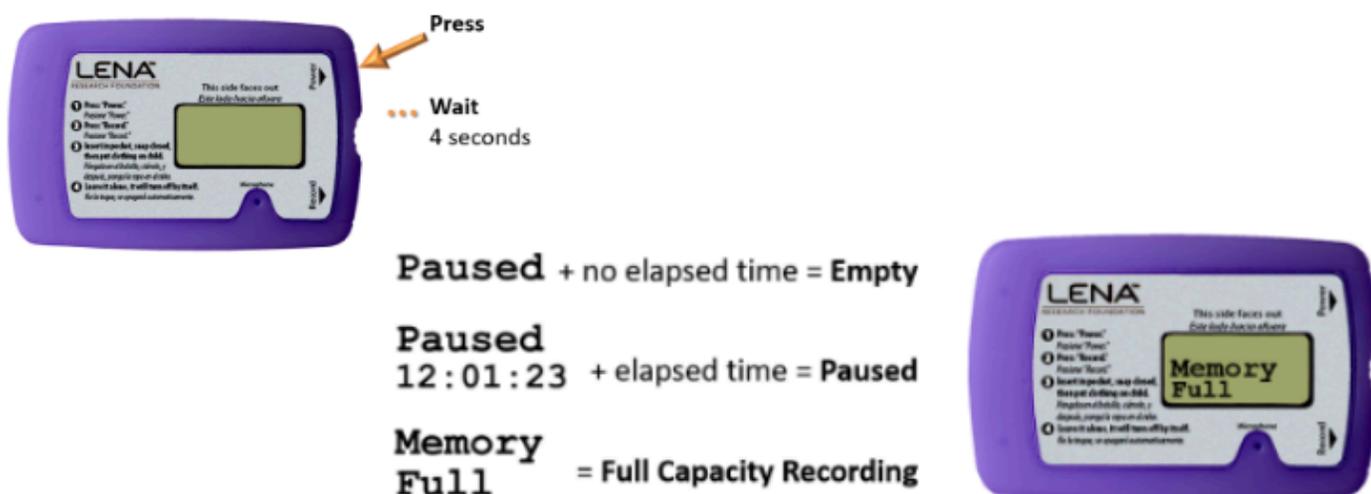
**i** If you typically transfer just a single device and/or do not have a Multi Dock, you can skip this step.

1. Start with an **empty** Multi Dock and USB cables - no recorders attached.
2. Plug the Multi Dock into the wall for **power**.
3. Connect the Multi Dock to the **LENA Hub computer**.



3. Turn on all LENA devices and check contents.

Look for **Memory Full** or the expected elapsed recording time.



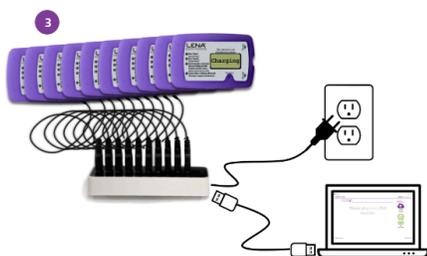
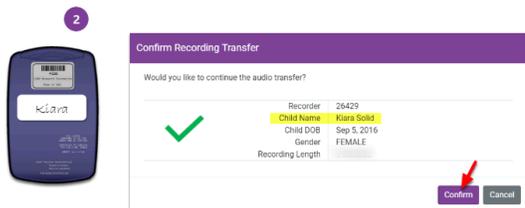
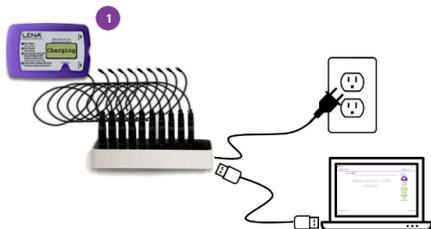
💡 If any recorder is unexpectedly empty or contains too little data, set it aside to handle later.

Help! My device says something not listed here.

Learn about [other less common messages](#), or get [help with error codes on the device](#).

4. Connect one, confirm, repeat.

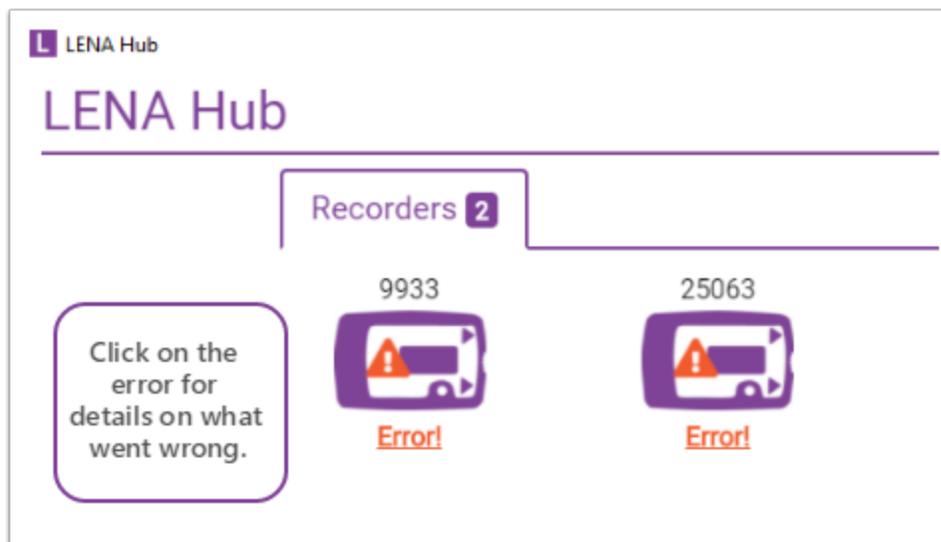
1. **Connect** *one* LENA device to the Multi Dock. (If not using Multi Dock, connect device directly to computer using USB cable.)
  - A device icon will appear on the Hub screen, followed by a confirmation window.
  - The device's LCD screen will now say *Charging* or *Charged* instead of *Memory Full* or *Paused*.
2. **Confirm** the transfer *if* the name shown onscreen matches the name label on the device. [What if the names don't match?](#)
  - The data will be processed for that child.
  - The device icon will show *Transferring* or *Waiting* status.
3. **Repeat** steps 1 and 2 until Multi Dock is full.
  - No need to wait for each transfer, just keep connecting and confirming.
  - Do not connect another Multi Dock...[yet](#).



Help! I connected a device but nothing happened.

Get [help with device recognition problems](#).

Help! The screen says my device has an Error!



Click on the Error notification to see more information. The most common situations are:

- [Device not assigned](#)
- [Device does not contain audio](#)

For other errors, see the chapter on troubleshooting LENA Hub.

Help! The screen is showing the wrong child's name.

-  If you click Confirm, the date you transfer *will be processed for the child whose name is on the screen.*
- If the name on the screen is not the child who used the device, or if you are not sure, click Cancel.**

1. Click **Cancel**.
2. **Disconnect** the device.
3. In LENA Online, [assign the recorder](#) to the correct child.
4. **Reconnect** the device to LENA Hub.
5. **Confirm** audio transfer to the correct participant.

5. Let all confirmed devices transfer.

Hub displays each device's status. Devices must remain connected to Hub until they **transfer** their data to the computer.

Status	Meaning
<b>Transferring</b>	<ul style="list-style-type: none"> <li>• Device is actively transferring data to the computer.</li> <li>• Do NOT disconnect.</li> </ul>
<b>Waiting</b>	<ul style="list-style-type: none"> <li>• Device is waiting in line to be transferred.</li> <li>• Do NOT disconnect.</li> </ul>
<b>Battery icon</b>	<ul style="list-style-type: none"> <li>• Contents have been transferred or error has been cleared, and device is charging.</li> <li>• OK to disconnect from Hub, but must continue charging from a power source for <i>at least an hour</i> <b>and</b> until a <i>green check mark</i> indicates sufficient charge to make a valid LENA Day.</li> </ul>
<b>Error</b>	<ul style="list-style-type: none"> <li>• Something unexpected has occurred. Click the error for more information.</li> <li>• OK to disconnect from Hub.</li> </ul>

**LENA Hub** hubdemo sign out

Recorders **10** Uploads **1**

System

Uploads: 1 Uploading, 1 Uploaded

Disk Usage

Internet Status

© LENA 2013-2019 LENA Hub v4.1.0

Devices that are transferring or waiting must stay connected to LENA Hub

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**LENA Hub** hubdemo sign out

Recorders **10** Uploads **2**

System

Uploads: 2 Uploading, 6 Uploaded

Disk Usage

Internet Status

© LENA 2013-2019 LENA Hub v4.1.0

All battery icons means all devices have transferred. If necessary, Multi Dock can now be disconnected from computer. BUT... keep devices connected to power so they can charge sufficiently.

Help! Audio transfer failure

Get [help with failed audio transfer](#)

What do the different battery icons mean?

	<b>Black battery:</b> Device is charging and does not have enough battery power to complete one full LENA Day.
	<b>Black battery + time:</b> Device will have enough battery power to complete one full LENA Day <i>after</i> time shown on screen.
~ 10 minutes left	
	<b>Green battery, partial charge:</b> Device will have enough battery power to complete one full LENA Day. Battery is not full.
	<b>Green battery, full charge:</b> Device battery is full and will have enough battery power to complete one full LENA Day.

Special instructions for more than 10 devices

If you have **more than 10 devices to transfer**:

1. Let first set of 10 transfer over to the Hub.
2. Disconnect first Multi Dock from Hub computer, but leave it plugged in to power outlet so devices continue to charge.
3. Set up second empty Multi Dock, plugging in to Hub and power source.
4. Connect and confirm LENA devices, following the same steps as above.

Do **not** connect more than one Multi Dock to the computer at a time. This can prevent Windows from recognizing *any* recorders, including the ones you've already confirmed. You'll have to restart your computer and start all over again. This is not fun. Don't do it.

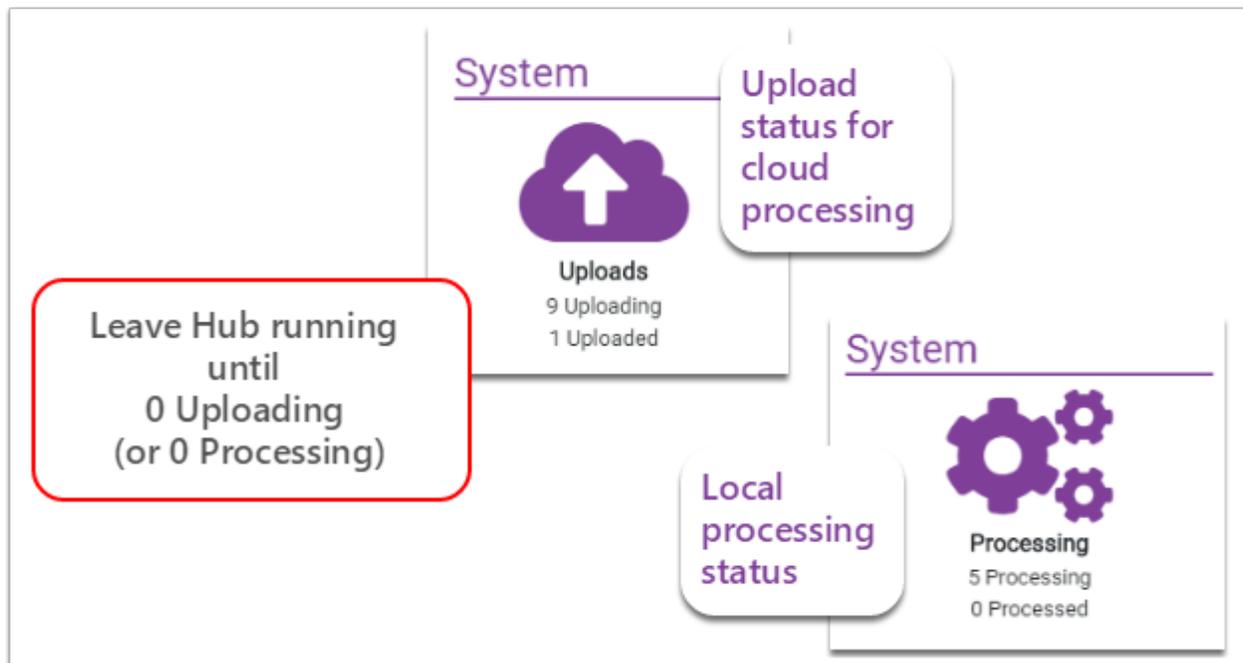
 Hub begins uploading each file after transfer, unless [deferred processing](#) is enabled.

6. Leave Hub running until it finishes handling the data.

The rest is automatic! This means you can walk away, BUT...

- **Leave the LENA Hub program open** until the status area shows **0 Uploading** (or 0 Processing if configured for local processing)

- Keep the computer:
  - **plugged in**
  - **powered on**
  - **awake** (make sure it was [set to never sleep](#), and if it's a laptop don't close the lid)
  - **connected to the internet**
- **Stay signed in** to Windows. You can lock the computer if needed (Windows key + L).



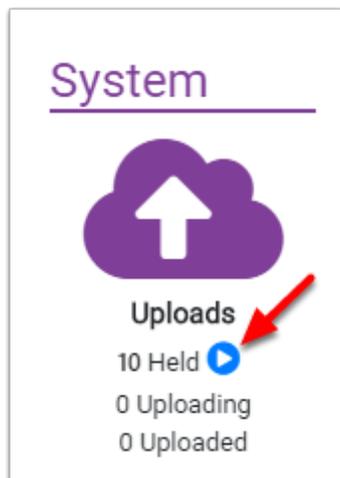
### Special instructions for "Held" files (deferred processing)

Your LENA Hub software *may* be [configured to hold recordings](#) for later handling. If so, you will see a blue arrow and the number of "Held" files. These LENA Days will be **held unprocessed until a user manually initiates the upload or processing**.

As long as you see 0 Uploading or 0 Processing, you can safely close LENA Hub and shut down the computer. The recording files will still be there the next time the program is opened. It is also safe to transfer more recorders before processing the held items.

When the computer can be connected to high speed internet for sufficient time, click the blue arrow to initiate uploads/processing for all held files.

💡 Don't forget to click the blue arrow! **No reports will be created until the files are processed.**



How long will this take?

#### Hub for cloud processing

Uploading may take 5-30 minutes *per file*, depending on recording length and your internet speed. Files upload one at a time. After a file is uploaded, the next step is cloud processing. Reports will be available the day after the recordings finish uploading.

#### Hub for local processing

Local processing takes about 1.25 hour per file. Most computers can work on 3 files at a time, meaning that 10 full-day files typically require about 5 hours.

#### What to do if uploads do not complete during the time you have available

Slower internet and/or large quantities of devices transferred at once may result in a total upload time that exceeds the amount of time you can leave the computer running. If you frequently need to pack up your Hub laptop to leave before the files complete, then you should:

1. [Turn on deferred processing.](#)
2. Close the Hub (click through the warning).
3. Reopen Hub at your earliest convenience to allow it to complete the files.

The next time you use Hub to process devices, all files will be held so that you won't have to interrupt uploads (which sometimes causes hiccups). Click on the special instructions below to learn how deferred processing works.

#### Help! Hub says that uploads or processing have failed

- [Help for uploading failures](#)
- [Help for local processing failures](#)

Help! My files have been uploading / processing for days

- Help with [files that seem to upload for days](#)



**Reports will be available the day after the recordings finish uploading.**