

Whoopsies. TeeHee

How to Reinstall TeeHee's Base OS and Start Fresh

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Start Fresh

Sometimes things just don't work out the first time. Fortunately, when it comes to software, do-overs are totally a thing and nothing to be ashamed of. There are two distinct reinstallation processes listed below, depending on your situation. The first one is significantly simpler and is just a matter of clicking a button in TeeHee's web GUI. The second one requires an SD card and a few additional steps (don't worry, though—this guide walks you through it all).

Reasons for Reinstalling the OS

The Web GUI is MIA

If you can't access the web GUI for any reason, you'll need to force-install the OS another way. Remember that micro SD card that came with TeeHee? Well, it's your magic tool if all else fails and you can't seem to access the web GUI anymore. Before giving up, remember that you should try and navigate to what you believe to be TeeHee's currently assigned IP address as delineated in the <u>welcome guide</u>. If the IP address method doesn't work (via hardline or wireless), you should also attempt to visit <u>http://[fd00:ab:cd::1]</u> with TeeHee's LAN port plugged into your computer's RJ45 port and see if that opens up the communication channel.

One final troubleshooting step uses an app called <u>LanScan</u> to search your network for TeeHee. Try connecting to your set wireless network and see if TeeHee is hiding away in some digital corner. Its name shows up as *AzureWave Technology Inc.*

10.10.2.181 AzureWave Technology Inc.

You may have to try searching through different IP address ranges. If your TeeHee shows up and is green, copy the IP address it's been assigned and paste it into your web browser's address bar. If it loads, you're in business. If it doesn't, you may need to <u>entirely</u> <u>reset</u> TeeHee and reinstall its OS.

Other Inexplicable Issues

If your TeeHee unit is behaving erratically or otherwise giving you trouble, just like any modern computer, you can attempt to reinstall the entire operating system to see if that's the kick in the pants panacea it wants. No promises, but if you wanna attempt it, this guide is here for ya.

Considerations

TeeHee arrives in your hands pre-imaged as much as possible to expedite configuration for those who may have never touched camera control hardware before. If you're merely trying to revert the overall settings on TeeHee, you don't need to do a full OS install. To get TeeHee back to the state it was in out of the box, you can simply <u>restore settings</u>.

Please ensure TeeHee is always plugged into a consistent power source when changing settings to avoid loss of preferences and interruptions to active processes.

Reset TeeHee Entirely

Reset Via Software

If you don't have to do things the hard way, why would you? If you can still access the web GUI, it's as easy as clicking a button.

- 1. With TeeHee's LAN port plugged into your computer, open your preferred web browser and navigate to <u>http://[fd00:ab:cd::1]</u>. Did it work? If not, keep going.
- 2. Try connecting to your set wireless network and see if you can ascertain the IP address of TeeHee on your network via <u>LanScan</u> (explained <u>above</u>). If you can't access the web GUI, skip to the <u>next section</u>.
- 3. Using the top navigation bar of the web GUI, navigate to System > Backup / Flash *Firmware*.



4. Select Perform reset



5. You will be prompted to confirm your decision. Select OK.

c Do you really want to erase all settings?		
	Cancel	ОК

Reset Via Hardware

- 1. Retrieve the micro SD card included with TeeHee. If you don't have the original micro SD card or want to create an additional micro SD card for hardware resets, please see <u>Appendix I</u>.
- 2. With TeeHee powered off¹ and all other cables disconnected, insert the micro SD card into the side slot with the card's writing facing the side of TeeHee that has the metal mounting threads. The micro SD card will "spring" into place and physically lock in the mounted position.
- 3. Connect external power, which will automatically turn on TeeHee.
- TeeHee will read the SD card image and start reinstalling the OS from scratch. This should take about a minute. The red PWR will flash rapidly to signify the install is taking place.
- 5. Once the installation and reset process is complete, all three status lights—WIFI, LAN and WAN—will be illuminated solid green. The red PWR light will be blinking slowly. When this happens, push inwards on the micro SD card to spring-eject it. Upon removal of the micro SD card, the device will boot like normal (which takes about 30 seconds).

Please proceed to the next section to get TeeHee back to the state the device was in when you first received it.

Revert to TeeHee Base Settings

Regardless whether you did a software or hardware-initiated reset, you are now left with a "factory reset" device. Please note this is not the same as when your TeeHee came to you, as it was actually pre-imaged with software that you now have to install manually. The following steps will get TeeHee back to the exact state it was in when you first received it.

¹ If your TeeHee has an internal UPS, you may need to wait up to 30 minutes for the unit to deplete its battery and fully shut down.

Connect to Internet

- 1. With a freshly reset TeeHee plugged into your computer via the LAN port, open your preferred web browser and navigate to http://fd00:ab:cd::1].
- 2. The prefilled username will read *root*. Enter *password* as the password.

You will temporarily connect to your home network or any other wireless network that offers internet access to download the necessary software to TeeHee.

Heads up! If you have hardline internet access available, you can simply plug an RJ45 cable with internet access into the WAN port of TeeHee and proceed to Install Software.

3. Using the top navigation bar of the web GUI, navigate to *Network > Wireless*.



4. To the right of *radio0*, click the *scan* button.

Wireless Overview						
🙊 radio0	Generic MAC80211 802.11acbgn Channel: ? (? GHz) Bitrate: ? Mbit/s			Restar Scan Add		
Associated Statio	Associated Stations					
Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate		
		No inform	nation available			
				Save & Apply - Save Reset		

- 5. After a few seconds, a list of nearby wireless networks appears. Find the name of any network that you know has internet access and select *Join Network* all the way to the right of its name.
- 6. Confirm your network name is correct where it says *Joining Network:* "YOUR_NETWORK_NAME".
- 7. Check the box beside *Replace wireless configuration*.



- 8. Enter the network's password as the WPA passphrase.
- 9. Change the Create / Assign firewall-zone dropdown to the green option.



- 10. Click the green *Submit* button.
- 11. On the proceeding dialogue box titled *Wireless Network: Client "YOUR_NETWORK_NAME" (radio0.network1*), choose the appropriate option next

to Operating frequency. (If using the 2.4 GHz band, you will likely be using N.) Channel and Width settings can remain as they are unless you have specific, known reasons to change them.



12. Everything else on this page can retain the default settings. Click the green *Save* button at the bottom right. Once the window closes, click *Save & Apply* at the bottom right of the page.



These changes will typically take about five seconds to implement, and your network will now appear in the *Associated Stations* section of the *Wireless* page. Likewise, the WIFI status light on TeeHee will illuminate solid green to confirm your wireless connection.

Install Software

Now that the internet connection has been established, it's time to download and install the necessary software package.

1. Using the top navigation bar of the web GUI, navigate to System > Software.



2. Click the green update lists... button.



3. A box similar to the following will appear. Ensure there are no errors—usually if there are, it's due to a lack of active internet connection. Sometimes, however, you may have to run it a second time to avoid errors. Once it's successful with no errors, you can dismiss this box.

Executing package manager

Downloading https://mirrors.cloud.tencent.com/openwrt/releases/22.03.3/packages/aarch64_g eneric/base/Packages.gz Updated list of available packages in /opt/opkg-lists/openwrt_base
https://mirrors.cloud.tencent.com/openwrt/releases/22.03.3/packages/aarch64_g eneric/luci/Packages.gz
Updated list of available packages in /opt/opkg-lists/openwrt_luci Downloading
https://mirrors.cloud.tencent.com/openwrt/releases/22.03.3/packages/aarch64_g eneric/packages/Packages.gz
Updated list of available packages in /opt/opkg-lists/openwrt_packages Downloading
https://mirrors.cloud.tencent.com/openwrt/releases/22.03.3/packages/aarch64_g eneric/routing/Packages.gz
Updated list of available packages in /opt/opkg-lists/openwrt_routing Downloading
https://mirrors.cloud.tencent.com/openwrt/releases/22.03.3/packages/aarch64_g eneric/telephony/Packages.gz
Updated list of available packages in /opt/opkg-lists/openwrt_telephony Downloading file://opt/packages/Packages.gz Updated list of available packages in /opt/opkg-lists/friendlywrt_packages
Dismiss

4. Filter the results for *luci-proto-relay*. Click the blue *Install*... button to the right of the package description.

Filter:		Download and install pad	ckage:		Actions:		
luci-proto-relay	Clear	Package name or URL		ок	Update lists	Upload Package	Configure opkg
Available Installed Upda	ates						
			Displaying 1-	1 of 1			
Package name V	ersion		Size (.ipk)	Desc	ription		
<u>luci-proto-relay</u> gi	it-19.307.61018-2	284918b	2.5 KB	Supp	ort for relayd pseud	o bridges	Install

- 5. Check the box that says Overwrite files from other package(s).
- 6. Click the blue *Install* button.

Details for package <i>luci-proto-relay</i>
Version: git-19.307.61018-284918b
Size: ~1.6 KB installed
Dependencies:
⊢relayd (11.0 KB) NOT INSTALLED
→libubox20220515 INSTALLED
Description
Support for relayd pseudo bridges
Require approx. 12.6 KB size for 2 package(s) to install.
✓ Overwrite files from other package(s) Cancel

7. A box similar to the following will appear. Ensure there are no errors—usually if there are, it's due to a lack of active internet connection. You can dismiss this box.



8. Luci-proto-relay should now be installed as denoted where it says Installed.



9. Optional: If you plugged hardline internet access in via the WAN port, you may now unplug that RJ45 cable as the remainder of the process does not require an active internet connection.

Restore Settings

Alright, you've completed the hard part! At this point, you just need to restore all the other settings that make TeeHee what it is.

Heads up! If you've already followed the <u>welcome guide</u>, you'll actually have a <u>personalized configuration file</u> you'll want to use during this step. 1. Using the top navigation bar of the web GUI, navigate to System > Backup / Flash Firmware.



- 2. If you haven't already, download the <u>TeeHee configuration backup file</u>. Once downloaded locally, **the file extension should be .tar.gz**. If it is not, please use a different browser (Google Chrome is recommended) to download the configuration backup file.
- 3. Under Restore, select Upload archive...

4.	Restore backup Upload archive ? Custom files (certificates, scripts) may remain on the system. To prevent this, perform a factory-reset first.
5.	Click <i>Browse</i> and navigate to the location where you just saved the TeeHee configuration backup file.
6.	Click the blue Upload button.
	Uploading file



7. A box similar to the following will appear.

Apply backup? The uploaded backup archive appears to be valid and contains the files listed below. Press "Continue" to restore the backup and reboot, or "Cancel" to abort the operation. etc/collectd.conf etc/config/adblock etc/confia/aria2 etc/config/collectd etc/config/cpufreq etc/config/ddns etc/config/dhcp etc/config/dhcpbear etc/config/dhcpbear etc/config/firewall etc/config/firewall etc/config/fstab etc/config/dhcidle etc/config/luci etc/config/luci_statistics atc/config/luci_statistics etc/config/minidlna etc/config/my_installed_packages etc/config/network etc/config/nft-qos etc/config/nlbwmon etc/config/ntpclient etc/config/openssl etc/config/packages etc/config/rpcd etc/config/samba4 etc/confia/smartdns etc/config/sqm etc/config/system etc/config/ttyd etc/config/ucitrack etc/config/uhttpd etc/config/upnpd etc/config/watchcat etc/config/wireless etc/chropbear/dropbear_ed25519_host_key etc/dropbear/dropbear_rsa_host_key etc/aropbear/aropbear_rsa_host_key etc/aropbear/aropbear_rsa_host_key etc/hosts etc/inittab etc/luci-uploads/.placeholder etc/netdata/.install-type etc/netdata/.opt-out-from-anonymous-statistics etc/netdata/netdata.conf etc/netdata/netdata.conf etc/netdata/netdata.conf etc/nftables.d/10-custom-filter-chains.nft etc/nftables.d/README etc/opkg/keys/4d017e6f1ed5d616 etc/ppp/radius/dictionary etc/ppp/radius/dictionary.asnet etc/ppp/radius/dictionary.microsoft etc/ppp/radius/servers etc/profile etc/profile.d/sys_bashrc.sh etc/rc.local etc/samba/secrets.tdb etc/samba/smb.conf etc/samba/smbpasswd etc/shadow etc/shells etc/shinit etc/ssl/engines.cnf.d/devcrypto.cnf etc/sysctl.conf etc/uhttpd.crt etc/uhttpd.key etc/xattr.conf etc/uhttpd.key etc/uhttpd.crt Cancel Continue

Ensure there are no errors—usually if there are, it's because the file extension of the configuration backup file changed (remember, it should be .tar.gz). If there are no errors, click *Continue*.

8. TeeHee will reboot and its status lights will reflect that.

Rebooting...O The system is rebooting now. If the restored configuration changed the current LAN IP address, you might need to reconnect manually.

After about 30 seconds, you will automatically be redirected to the web GUI login screen. (If you are not, you may need to refresh your web browser.) Because you have "imported"

the official TeeHee settings, you are now in the exact same state TeeHee was in upon your initial receipt of the product. You can now proceed to configure TeeHee like normal, starting at <u>Connect TeeHee to Your Wireless Network</u>.

The Heads up! If you restore using your <u>personal backup configuration file</u>, TeeHee will already have your wireless network saved and your web GUI password will be custom to you.

Appendix I: Create A Micro SD Card Installer

If you lose your included micro SD card or need to make another one, you can do so on any computer, but it's a few additional steps besides dragging an OS file onto the micro SD card. Due to the write speeds of microSD cards, imaging an SD card with the necessary OS from scratch takes about 15-20 minutes.

- You'll need a special app to image your micro SD card so it automatically prompts TeeHee to do an OS install. Go ahead and download the relevant version of <u>balenaEtcher</u> for your computer. Don't worry, it's free!
- 2. Install balenaEtcher.
- 3. Download and unzip <u>TeeHee firmware</u>.
- 4. Physically insert your 32GB or larger micro SD card and mount it to your computer, using an adapter or external card reader if necessary.
- 5. Use Disk Utility to format your micro SD card as ExFAT with the GUID Partition Map scheme if it isn't already. The name does not matter.

Erase "MXT-USB Storage Device Media"? Erasing "MXT-USB Storage Device Media" will permanently erase all data stored on it. You can't undo this action.					
Name:	UNTITLED				
Format:	ExFAT 🗘				
Scheme:	GUID Partition Map				
Security Options	Cancel Erase				

6. In balenaEtcher, click Flash from file.



- 7. Browse and select the now-unzipped firmware .img file you downloaded in step three. The file should be 7.8GB.
- 8. Click Select target and choose your micro SD card from the list. Click Select 1.



9. Click Flash!

•••		😭 balena Etcher			\$?
+				4	
TeeHee_ef30)222.img N	/XT-USB S…ice Media	a	Flash!	
Cancel		Change			
7.8 GB					

10. Enter your computer's user password when prompted.

balenaEtcher needs privileged access in order to flash disks. Type your password to allow this.
Cancel

11. Duration varies based on the speed of your micro SD card's write access, but typically the write (aka "flashing") process takes about 5-10 minutes.

+ TeeHee222.img	7.8 GB
MXT-USBe Media	
4	
, ,	
Flashing 9%	Cancel
19.90 MB/s	ETA: 5m44s

 After flashing, validating will take another 5-10 minutes depending on your micro SD card's read speeds. This validation process duration is to be expected and should not be skipped.



13. After both processes complete, you'll receive both an app notification and confirmation screen in balenaEtcher.

Flash complete! TeeHee_eflasher-22.03-202302 mg was successfully flashed to M USB Storage Device Media (/dev disk4)	22.i MXT- 🕎	
•••	🕎 balena Etcher	¢ 0
	Task	Solution
\sim	Flash device	脊 balena Etcher
TeeHee_efla0230222.img	Update and manage devices	脊 balena Cloud
Flash Completed!		
	Etcher is just one tool in	your kit
1 Successful target Effective speed: 20.7 MB/s	We also build tools to deploy, manage, and remotely updat Provision, deploy, manage, update and m	e fleets of small devices at any scale. aintain with balena.
Flash another	Find out more	

14. Aaaaaaaaand you're all imaged up. You may now eject the micro SD card from your computer and do a happy dance. (A "disk not readable" prompt may have appeared, in which case you can just click *Eject*.)



15. If you would like to proceed with imaging your TeeHee, please proceed to step two in the section titled <u>*Resetting Via Hardware*</u>.